FULLER AND GÖDEL: PROPHETS AGAINST THE EVILS OF POSITIVISM;
HOW THE NATURAL LAW IS NECESSARY TO PROVIDE LEGAL MEANING
AND CONSISTENCY

HENRY J GARON

A THESIS SUBMITTED TO THE FACULTY OF GRADUATE STUDIES IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF LAWS

GRADUATE PROGRAM IN LAW
OSGOODE HALL LAW SCHOOL
YORK UNIVERSITY
TORONTO, ONTARIO

November 2013

TABLE OF CONTENTS

ABSTRACT

Gödel showed that formal systems that discuss natural numbers cannot be complete or prove their own consistency. Incompleteness in this sense is limited to formal systems, and so is not applicable to law by it own terms.

Looking to the philosophy behind the Incompleteness Theorem, Gödel intended to show that positivism was a bankrupt world-view, and this resonates strongly with Lon Fuller. Fuller is analogous to Gödel in his condemnation of the positivist philosophy because he showed that a system of rules, by itself, was not capable of rendering judgments. A legal system is dependent upon an external morality, but a close inspection reveals that Fuller's own natural law view was positivistic in its denial of substantive natural law. A legal system consistent with Gödel's philosophy would seek justice in an objective and non-arbitrary sense, and would rely on a natural law system akin to that described by Aquinas.

DEDICATION

I dedicate my thesis to my family and friends. I owe special thanks to my father, Bob, who was always there for me in my darkest hours, before I had my coffee. A special feeling of gratitude also to my loving mother, Mary Rose, who taught me to hate guns, and to love sharp knives. To my brother Johnny, without whose financial support I would never have been able to purchase that wax bust of General Sherman. To my other brothers and sisters, who would be extremely disappointed if I did not mention them here. Finally, to all of my friends, who were either only vaguely aware of my thesis, or sick to death of my talking about it.

ACKNOWLEDGEMENTS

I wish to acknowledge and thank Professor Shelley Kierstead, who was my relentless thesis supervisor and editor. Shelley was always available to help me, and was never too tired to tell me to re-write an entire section. But Shelley was more than just an advisor and a friend: she was also my boss.

I should thank Desmond Manderson, who wrote a sentence in his book, *Songs Without Music,* that was the inspiration for this thesis. I didn't really understand what the sentence meant until I was re-writing my thesis for the third time.

I am grateful to the wonderful graduate students at Osgoode who were so kind and helpful to me: Vanisha, Marsha, Natasha, Basil, Peter, Chris, Ruby, Howard, Aleks, and Steffan.

One of them a prophet of their own, said, The Cretians are always liars…
<div align="right">-- Titus 1:12</div>

Chapter I: Introduction: Gödel and Natural Law

<u>1. Law and Morals: Is Gödel's Incompleteness Theorem an analogous case of Lon Fuller's statements concerning the natural law?</u>

My thesis will explore the purpose and structure of the law and legal reasoning. More specifically, I will argue that the proposition that positive law cannot exist without the infusion of morality from the natural law is correct.

This exploration emerges from the following inquiry: "Whether Gödel's Incompleteness Theorem is an analogous case of Lon Fuller's statements concerning the natural law?" The very brief answer to that question is, "Yes." The longer answer is that both Fuller and Gödel showed that the positivist philosophy was an incomplete account of how we come to know things. There is some slight confusion on this point because Fuller is largely *associated with* a stance that is antithetical to the positivist view, but as I shall show, Fuller's natural law system is, in some ways, positivistic.

My thesis question was inspired by Desmond Manderson's book, *Songs Without Music,* which seeks to show that the legal aesthetic "suggests very strongly a particularly normative dimension in the pursuit of justice."[1] It would be difficult to dispute the goal of "justice" as the proper ends of a legal system, but many will quibble over its exact meaning. Although justice can be described by a wide variety of frameworks -- procedure, content, or fairness – Manderson maintains that its

---

[1] Desmond Manderson, *Songs Without Music: Aesthetic Dimensions of Law and Justice*, (Berkley: University of California Press, 2000) at 191.

precise meaning escapes definition because justice is accepted in our lives axiomatically: justice is self-evident.[2]

In contrast to the normative dimension, Manderson holds out positivism as a conception of a purely algorithmic system: "some system of formalized procedures for which it is possible to check, entirely computationally, in any particular case, whether or not the rules have been correctly applied."[3]

Manderson claims that the human awareness of the nature of justice is not admissible to the legal system in a manner that is analogous to Gödel's Theorem:

> "Gödel's theorem proves, from within the logic of the mathematical system, that certain things which are true according to its premises nevertheless cannot be logically derived from it…. Our knowledge of these truths, then, stems from some understanding of the system of rules and axioms which the system does not itself replicate and cannot either manufacture or comprehend. It relates to an awareness of the "why" of the system to which the system itself – mute sequence of rule-following algorithms—has no access…. The most rigorous and analytic theory or system requires a supplement which is both necessary to its functioning and yet cannot be admitted by its structure. This supplement is an awareness of the "purposes" which motivate the system, an argument most closely *associated with* Lon Fuller. Fuller's point is nothing but an analogous case of Gödel's theorem and vise versa.[4]

---

[2] *Ibid* at 192. Note: To accept something axiomatically means to admit it without proof. This process of admitting axiomatic statements will be discussed more fully in the section on Gödel. Something that is self-evident means that it is so obvious that it cannot be explained.

[3] *Ibid* at 194, citing Roger Penrose, *Shadows of the Mind: A Search for the Missing Science of Consciousness*, (New York: Oxford University Press, USA, 1996) [*Shadows*] at 72. cf Fuller's description of Hart's positivism as viewing law "entirely in terms of its formal source rather than as a complex undertaking capable of various degrees of success." Lon Fuller, *Morality of Law* (New Haven: Yale University Press, 1964) at 157.

[4] Manderson, *supra* note 1 at 194-5. [Italics added for emphasis.] "Positivism conceives of specific rules or a whole legal system as an algorithm and nothing but an algorithm: "some system of formalized procedures for which it is possible to check, entirely computationally, in any particular case, whether or not the rules have been correctly applied."[Citing Penrose, *Shadows*, *supra* note 3, at 72.] "But well before CLS [the Critical Legal Studies movement] Fuller insisted that the process of interpretation always requires an understanding of the reasons we are engaged in interpretation. For Gödel and Fuller alike, the "is" and the "ought," the how and the why, of legal interpretation are inextricably linked: "Human lawyers are not using a knowably sound legal rule in order to ascertain legal truth." [This is a paraphrase of Penrose, *Shadows*, *supra* note 1, at 76.] "Gödel's theorem demonstrates that legal meaning exceeds rule following. Even from the point of view of law as a

Gödel's Theorem is a formal math theorem, so how can it be said that Gödel is analogous or even relevant to law? Gödel's Incompleteness Theorem talks about format math systems, which were invented in order to talk about number systems without any ambiguity. There is perhaps no more complete sense of 'proving' something than how this is done in a formal logic system. Gödel was able to show that there are statements that are recognized as true within a formal system but cannot be proved within that system. A shorthand way of expressing this is to say that "[T]ruth is not reducible to (formal…) proof."[5]

The analogous instance in legal theory is the Hart-Fuller debate, which concerns the proper place of morality within the law. Professor Hart minimized the place of morality in law, stating that the law is what is written in the properly promulgated legal code, i.e. the "positive law". Professor Fuller represented the natural law view, and said that it was not possible to understand the meaning of a legal rule without understanding its purpose.

Bringing these two ideas together, the legal theorist is tempted to ask: "Does Gödel's Theorem prove that the positivists are wrong and that the natural law

---

system of rules itself, legal meaning requires another element which, by definition, cannot be defined in terms of those rules and systems and remains an indigestible supplement or remainder to them. Justice is one name for this supplement, something both utterly apart from and yet embodied in the operation of law. It is a mistake (nonetheless frequently made) to conflate the two, as if an exacerbated quantity of the latter could somehow accelerate the former. Neither the rote application of law nor the random exercise of mercy constitutes justice."
"Justice can never be found through the application of an abstract rule. It is understood as the application of general principles, but at the same time -- and especially within the common-law system-- it demands an acknowledgment of the "irreducible singularity" of each individual context…"
[5] Palle Yourgrau, *A World Without Time: The Forgotten Legacy of Godel and Einstein* (New York: Basic Books, 2005) at 57.

theorists are right? Or vice versa?" And if you ask a lawyer, the answer, of course, will be: "It depends." It would of course be super keen if there could be a cut and dried answer to this endless legal debate, but Gödel's Theorem, by its own terms limits itself to the realm of formal systems discussing natural numbers, and that definition does not include legal systems. Some would interpret Gödel's Theorem broadly to show that the positive law cannot interpret itself, but many would question whether non-math analogies based on Gödel have any meaning. Drawing conclusions from such analogies are held to scorn as being tendentious: the rhetorical equivalent of smoke and mirrors. In exploring the Gödel-Fuller analogy, I avoid this criticism by basing my analogy upon their similar philosophies: both Gödel and Fuller rejected positivism as being a bankrupt world-view.

Looking deeper into the philosophy behind Gödel's Theorem is where things get interesting. By establishing that the system of natural numbers cannot be proven within a formal system, Gödel meant to show that the positivist philosophy is similarly incomplete, and cannot account for how we make decisions about things. The philosophy of positivism is similar to empiricism, and holds that all true knowledge is derived from observable phenomena.[6] This philosophy is not a complete or 'true' account of how people come to know things because positivists rely on concepts that are not admitted to their system.

The philosophy of legal positivism has essentially the same meaning, and proposes that legal rules are valid because the political authority enacted them, and

---

[6] See "positivism", *Blacks Law Dictionary, 3d ed*. Cf empirical: "Of, relating to, or based on experience, experiment, or observation".

not because of any natural law morality.[7] Fuller's point, that the meanings of all legal rules are dependent upon the purpose of the rule, is analogous to Gödel's proof that true statements cannot be proven within the formal system. It is in this context of disproving positivism that Gödel is most relevant to Fuller.

To be honest, I cannot wholly recommend Lon Fuller's theory of law. When I looked closely at his representation of this external morality of law, I found that it was, in its own way, positivistic. Fuller's theory of natural law is subjective, and does not accurately describe the operation of law. Fuller's theory of natural law is inherently weak due to logical fallacies, and it does not accurately describe the nature of human rights. As I shall show in section IV, the more classical theory, as described by Aquinas, shows how the natural law can render an objective judgment, and is not subject to the naturalist fallacy. I therefore concluded that Aquinas' theory was a more accurate description of natural law that is analogous to Gödel.

2. General Summary of Thesis Sections

In order to make comparisons between Fuller's and Gödel's theories, I will provide a brief overview of their respective writings. In Section II I explore the natural law system of Lon Fuller. Fuller's writings are broad in scope, but I have selected the topics that I felt were most relevant to the topic of Gödel. One major theme of Fuller's was Polarity: he would examine antinomies that were intrinsic to law, such as logic and policy, and find some means of relation rather than show how one should triumph over the other. Much of the discussion in this section is carried on

---

[7] See "legal positivism", Black's Law Dictionary, 3d ed.

against the background the Hart/Fuller debate, which discussed the conflicting ideas of legal positivism and natural law. Fuller's main point in this debate was that morality was always a necessary component in the law.

In Section III I discuss formal logic and describe the meaning and the ordinary application of Gödel's Incompleteness Theorem. Many writers are mistaken as to the applicability of the Theorem in other contexts, such as legal systems, and wrongly use common terms like "completeness" and "consistency", which have very specific meanings within the formal context. By its own terms, the Incompleteness Theorem is applicable only to formal logic systems, which does not include the legal system.

Rather than leave Gödel and legal systems as hopelessly irreconcilable, in Part IIIa I discuss Penrose's interpretation of Gödel, which leaves the possibility open for alternative applications of the Incompleteness Theorem. It is this interpretation that Manderson invokes to find Gödel's applicability to the law: "Conclusion G" states that Gödel's Theorem shows that any system of rules can never show that these rules are being exactly followed.[8] I don't consider this as complete "proof", but Penrose certainly bolsters the argument of relevance. I am continuing to look at the Incompleteness Theorem as an analogy. In this section I lay out a rough framework of how Gödel is relevant to Fuller's theory of natural law. I show how Gödel's theorem demonstrates a type of vagueness that is unavoidable in formal systems.

In Section IV I will provide a more detailed discussion of the classical theory of natural law. Although Lon Fuller is generally held up as an example of natural law,

---

[8] Penrose, *Shadows, supra* note 3 at 72.

in many ways his theories were in conflict with the classical ideas of natural law. Fuller's emphasis on procedural aspects of natural law, rather than the ordering of its substantive aims, leaves his natural law theory open to charges of moral relativism. In a related sense, Fuller is an instrumentalist because he emphasizes the purposive view of rules without previously restraining those rules within the context of necessary human goods. Finally I will show how the natural law is necessary to provide consistency to the positive law. This demonstration is necessary not only to show how this abstract argument is relevant to the operation of law, but also to complete the analogy comparing the Incompleteness System to the natural law.

A common misunderstanding of Gödel's Theorem is to say that the system of numbers is somehow incomplete. But Gödel did not prove this. Rather he showed that the system of natural numbers was not provable within the formal system. Likewise, the natural law is not provable within the positive law. Yet both natural numbers and natural law are essential to their respective systems: formal logic systems are trying to describe the operation of natural numbers; positive law is trying to accomplish natural law justice.

"Whatever changeable thing you may look at, you could not grasp it at all, either by the sense of the body or by the contemplation of the mind, unless it had some form composed of numbers, without which it would sink into nothing."[1] St. Augustine

Chapter II: The Hart/Fuller Debate

1. Introduction

The main question that this thesis will answer is whether Gödel's Incompleteness Theorem is an analogous case of Lon Fuller's statements concerning the natural law. Although these theories are from entirely different disciplines, the relation between Gödel's formal math theorem and Fuller's natural law will give the reader a better understanding of the form and purpose of the law.

Of course, when presenting an argument, the first matter should always be to define our terms. This section will give a basic overview of Fuller's natural law thesis, which says that legal systems are essentially based on an internal morality of aspiration, and a morality of duty that is informed by values external to the legal system.[2] I will also give some background to the statements Manderson made concerning the Hart/Fuller debate and how this is related to Gödel.

Much of my description of Fuller will be focused on the conflict between Hart and Fuller, which embodies the classic conflict between positivism and natural law theories, and which lays out some of the main issues that this thesis will explore. Fuller argued that a system of positive law was always dependent upon norms that were external to it. Later sections of this thesis will demonstrate that this external

---

[1] Augustine, *On Free Choice of the Will*, trans Thomas Williams, (Indianapolis: Hackett Pub Co, 1993) Bk II, ch 16 section 171. [Augustine, *Free Choice*]
[2] Lon Fuller, *Morality of Law*, *supra* note 3, section I at 3-32.

morality is analogous to what Gödel's Theorem proved in formal math systems. In addition, this section will show how Fuller's natural law theory deviates from the classical theory of natural law.

2. Polarity

Before I discuss natural law directly, I will explain "the principle of polarity", which is perhaps the most singular, overarching concept in Fuller's philosophy; Otherwise, Fuller's theories seem "reluctant to yield" any "comprehensive statement".[3] Fuller spoke of polarity as an "unresolved state of tension" which exists between "apparently contradictory" notions that "form indispensable complements for one another."[4] Polarity is important to Fuller's philosophy because it changes the way we look at legal philosophy:

> "[Polarity] is a perspective-transforming concept in the sense that it moves us from a perspective from which we regard the contrary tendencies that form human experience in terms of simplistic opposition toward an alternative perspective from which we can see the same tendencies in terms of more complex relationships of opposition *and* interdependency. Polarity in this sense bears a great affinity to Keats's notion of "negative capability": *the capability… of holding two conflicting ideas in the mind at the same time* without an undue striving after one or the other."[5]

Fuller described legal antinomies, e.g. realism versus formalism, as "the two blades of a pair of scissors. If we watch only one blade we may conclude it does all

[3] Peter Read Teachout, "The Soul of the Fugue: An Essay on Reading Fuller"(1985-86) 70 Minn L Rev 1073 at 1075, 1105: "If there is any single impulse that gives shape and meaning to Fuller's jurisprudence, it is that embodied in what he referred to as "the principle of polarity."

[4] Lon Fuller, "Reason and Fiat in Case Law" (1945-46) 59 Harv L Rev 376 at 381. [Fuller, "Reason and Fiat"]

[5] Teachout, *supra* note 3 at 1106-7. [Italics added for emphasis.]

the cutting."[6] But we avoid the confusion involved in eliminating or denying one legal school of thought "by the simple expedient of recognizing that both blades cut, and that neither can cut without the other."[7]

Reading Professor Fuller's law review articles with an awareness of this principle of polarity will reveal that many, if not most, of Fuller's articles display this determined effort "to free us from the phony oppositions" between antinomies: "law versus morality, reason versus fiat, formalism versus realism, logic versus policy, justice versus efficiency, substance versus procedure, means versus ends...."[8]

More will be said on polarity later on, but I am stating this at the outset because this polarity principle could easily be interpreted as part of Fuller's theory of natural law.[9] The reader should note that this paper deals with various antinomies without reckoning them as indispensable complements. I do not consider this to be a large issue, and I shall endeavor to be clear about which classifications are from Fuller.

3. Lon Fuller's Natural Law

The concept of "natural law" has been around for thousands of years, beginning with the ancient Greeks.[10] There are many different theories of natural law,

---

[6] Lon Fuller, "American Legal Realism", (1934) 82 U PA L Rev 429 at 452. [Fuller, "Legal Realism".]

[7] *Ibid*.

[8] Teachout, *supra* note 3 at 1078-79.

[9] Note that Manderson represents this polarity principle as a representative part of Fuller's natural law: e.g. Manderson *supra* note 1, section I at 194: "For Gödel and Fuller alike, the "is" and "ought," the how and the why, of legal interpretation are inextricably linked…" Manderson cites Teachout, "Soul of the Fugue", *supra* note 3, for this understanding.

[10] Brendan F Brown, "Natural Law and The Law-Making Function In American Jurisprudence" (1939-1940) 15 Notre Dame L 9.

some of which go by other labels, but all evincing some "requirement of an extralegal criterion-the constitutive of an apparatus allowing a process of intelligent change in the juristic regime."[11] Generally, natural law is seen in juxtaposition with "human law" or "positive law",[12] and refers to the use of reason in the guidance of ultimate determinations of right and wrong.[13] Classical theories of natural law seek to establish basic forms of human "goods" to be pursued, a set of basic "requirements of practical reasonableness", and "a set of general moral standards".[14]

Although it is difficult to extract a comprehensive statement of a theory of law from Fuller's writings[15], Fuller dissociated his natural law theory from what are commonly understood to be the classical forms of natural law.[16] Fuller's theory of natural law is mostly based on aspects that he termed "procedural" rather than "substantive": it generally does not delimit explicit positive law aspects of the natural law, but instead posits that the essence of law is bound up in its own "internal morality".[17]

3.a. Morality of Aspiration and Morality of Duty

Fuller embraces the strong resemblance between morality and law, the

---

[11] *Ibid* at 10-11.

[12] *Ibid* at 9.

[13] Charles Grove Haines, "The Law Of Nature In State And Federal Judicial Decisions" (1915-1916) 25 Yale L J 617 at 618, citing Grotius.

[14] John Finnis, *Natural Law and Natural Rights* (New York: Oxford University Press, 1980) at 23. [Finnis, *Natural Law*.]

[15] Teachout, *supra* note 3 at 1075.

[16] Finnis, *Natural Law, supra* note 14 at 18.

[17] Fuller, *Morality of Law*, *supra* note 3, section I at 96-98. At 97: "The term "procedural" is … appropriate as indicating that we are concerned, not with the substantive aims of legal rules, but with the ways in which a system of rules for governing human conduct must be constructed and administered if it is to be efficacious…." Fuller does discern one principle of substantive natural law: "Open up, maintain, and preserve the integrity of the channels of communication by which men convey to one another what they perceive, feel, and desire." (at 186)

essential difference being that law is an "enterprise", which Fuller describes as "a direction of purposive human effort":[18] Law is "the enterprise of subjecting human conduct to the governance of rules."[19] There are two sorts of morality that give authority to law: a system of morals that is external to the law, and an internal morality.[20] The life of a nation's legal system is found in a reciprocal influence between this external and internal morality: "a deterioration of the one will almost inevitably produce a deterioration in the other."[21]

The external morality is the morality of duty: it starts at the bottom of human achievement and describes "the basic rules without which an ordered society is impossible, or without which an ordered society directed toward certain specific goals must fail of its mark."[22] The external morality of duty "finds its closest cousin in the law", while the internal morality of aspiration is more closely related to aesthetics.[23] The evaluation of aesthetics is "essentially subjective and intuitive", but in order to have "workable standards of judgment the law must turn to…the morality of duty." [24]

> "[O]ur common sense tells us that we can apply more objective standards to departures from satisfactory performance than we can to performances reaching toward perfection."[25]

Fuller's "secular"[26] natural law did not attempt to describe those substantive

---

[18] Fuller, *Morality of Law*, *supra* note 3, section I at 130.
[19] *Ibid* at 106.
[20] Lon Fuller, "Positivism and Fidelity to Law – A Reply to Professor Hart" (1957) 71 Harv L Rev 630 at 645. [Fuller, "Positivism and Fidelity to Law"]
[21] *Ibid*.
[22] Fuller, *Morality of Law*, *supra* note 3, section I at 5-6.
[23] *Ibid* at 15.
[24] *Ibid* at 9, 30-31.
[25] *Ibid* at 32.
[26] Teachout, *supra* note 3 at 1076.

laws that are necessary to achieve or maintain universal "goods" that are natural to all human beings, but rather rejected this approach as another form of positivism.[27] Instead, Fuller's theory focuses on the procedural aspects of natural law, the "inner morality" that is necessary to law.[28]

3.b. Inner Morality

Fuller's natural law system is essentially based on an "inner morality" of "aspiration": it is "affirmative in nature", "demand[s] more than forbearances", and is "directed towards specific kinds of achievement".[29]

The inner morality of aspiration is essentially a "procedural version of natural

---

[27] Anthony D'Amato, "Lon Fuller And Substantive Natural Law" (1981) 26 Am J Juris 202 [D'Amato, "Substantive Natural Law"] at 209-10: "Fuller's very use of the term "morality" in his concept of the "internal morality of law" tends to throw us off, because he seems to be pitting one kind of morality (procedural) against another (substantive). We begin to suspect that Fuller has used the term "morality" the way I have defined M-2, as an honorific title and not really a matter of morality at all." See also Lon Fuller, "Positivism and Fidelity to Law" *supra* note 20 at 660: "This identification of natural law with a law that is above human laws seems in fact to be demanded by any doctrine that asserts the possibility of an authoritative pronouncement of the demands of natural law. In those areas affected by such pronouncements as have so far been issued, the conflict between Roman Catholic doctrine and opposing views seems to me to be a conflict between two forms of positivism." See also Lon L. Fuller, "American Legal Philosophy At Mid-Century: A Review of Edwin W Patterson's Jurisprudence, Men and Ideas of the Law" (1953-1954) 6 J Legal Educ 457 [Fuller, "American Legal Philosophy"] at 477: "Because of the confusions invited by the term "natural law," I believe we need a new name for the field of study I am here recommending. I suggest the term "eunomics," which may be defined as the science, theory or study of good order and workable arrangements. Eunomics involves no commitment to "ultimate ends."" See also Matthew Kramer, "Scrupulousness Without Scruples: **A** Critique Of Lon Fuller And His Defenders" (1998) 18 Oxford J Legal Stud 235 at 256: "Like The Proposition 'I Ought To Stop Smoking', the Fullerian principles are not in themselves morally pregnant. Their moral status varies with the circumstances in which they are operative."
[28] Fuller, Morality of Law, *supra* note 3 section I at 96. See Fuller's discussion of the "Substantive Aims of Law" at 152-186. At 184, 186: "But can we derive from the morality of aspiration itself any proposition of law that is substantive, rather than procedural, in quality?.... If I were asked…to discern on central …principle of what may be called substantive natural law… I would find it in the injunction: Open up, maintain, and preserve the integrity of the channels of communication by which men convey to one another what they perceive, feel, and desire."
[29] *Ibid* at 42-3.

law".[30] In contrast to traditional natural law theories that have more "substantive aims" of describing "the proper ends to be sought through legal rules", Fuller's natural law is more concerned with "the ways in which a system of rules for governing human conduct must be constructed and administered if it is to be efficacious and at the same time remain what it purports to be."[31] Fuller has broken his natural law down into "eight kinds of legal excellence towards which a system of rules may strive."[32]

3.c. Eight Guiding Principles of Law

Using the example of a misguided King Rex who is an incompetent ruler, Fuller demonstrates how legal systems are dependent upon an inner morality, without which the system of law will break down.[33] The Eight Principles can be summarized:[34]

(1) there must be general rules;[35]
(2) the rules must be promulgated to the people who are required to obey them;[36]

---

[30] Fuller, *Morality of Law, supra* note 3, section I at 96-7. "[T]he word "procedural" should be assigned a special and expanded sense so that it would include, for example, a substantive accord between official action and enacted law."

[31] *Ibid* at 97-8.

[32] *Ibid* at 41.

[33] *Ibid* at 33-49.

[34] Kramer *supra* note 27 at 236.

[35] Fuller, *Morality of Law, supra* note 3, section I at 46-9. The principle of generality is the acknowledgment that legal systems must have rules, and this requires that the rules must be capable of some general applicability to like cases.

[36] *Ibid* at 49-51. Promulgation concerns the necessity that people be informed of what the law is, and its importance is underlined by Fuller's naming it his only substantive natural law rule. Although Fuller normally says that substantive laws are subject to organization much like a system of exchange, this rule of promulgation, like all of the morality of aspiration, is regulated along the lines of marginal utility. All the laws will not be understood or ever read by all the people, but laws should be generally available and adequately published so that they may be subject to public criticism. Note that this is Fuller's own distinction. Other aspects of Fuller's natural law that might possibly be called "substantive" can be found at 152-186.

(3) the rules must not be retroactive;[37]
(4) the rules must be understandable;[38]
(5) the duties imposed by the rules must not conflict;[39]
(6) compliance with the rules must be possible;[40]
(7) the rules must not be changed with disorienting frequency;[41] and
(8) there must be a congruence between the rules as formulated and their implementation.[42]

Fuller's natural law theories have been appreciated and recommended by

classical law scholars, but it is difficult to reconcile Fuller's conception of polarity

---

[37] Fuller, *Morality of Law, supra* note 3, section I at 51-62. Laws should be generally prospective, so that people are on notice of what is prohibited before they are punished for their actions. But Fuller recognizes that a functioning legal system must occasionally employ retrospective laws as corrective measures; e.g. to make up for poorly drafted legislation. Overruling a precedent can also be a form of retrospective rule.

[38] *Ibid* at 63 FN 21. Fuller says that the necessity of legal clarity underlines one of the weaknesses in positivist theory: "recognizing that laws may vary in legal clarity would entail a further recognition that laws can have varying degrees of efficacy" and "that the unclear statute is, in a real sense, less a law than the clear one." See also at 64: One of the best ways to achieve clarity is through common sense standards of judgments that we use in ordinary life.

[39] *Ibid* at 65-70. It is obvious that laws should not contradict one another, but it can be challenging to define a contradiction in law and to provide some resolution. See at 69: Fuller's demonstration of how judges might resolve contradictions in law reveals yet another example of how legal systems are reliant upon "a host of considerations extrinsic to the language of the rules themselves."

[40] *Ibid* at 70-79. The principle of impossibility takes on more than the idea that people cannot be compelled to do that which they cannot. It is into this category that Fuller stows the principles which guide lawmakers as they tread the difficult course between harsh justice and one that fails to be evenhanded. The category of impossibility recognizes the extreme difficulties involved in "tempering the standard of the reasonable man in favor of certain obvious deficiencies" and "formalizing definitions of these." (at 72). Fuller also includes under this heading the adjunct system of rules that are meant to heal the effects of inadvertence; e.g. unjust enrichment.

[41] *Ibid* at 79. Although people desire constancy in the law, so that our system of rules do not change too frequently, this concept is perhaps the "least suited to formalization in a constitutional restriction." Retrospective legislation and frequent changes in the law are both caused by legislative inconstancy. (at 79-81). The category of constancy charts the course between never allowing for changes, and making changes too often.

[42] *Ibid* at 81-91. This last of the "desiderata" is one that Fuller describes as "the most complex of all" the principles laid out thus far: the congruence between the official actions of the state and its declared rules. Just as there are many types of error or corruption that can disrupt this congruity, so there are many procedural devices to maintain it; e.g. habeas corpus and the right of appeal. Once again we are confronted with the limits of formality when we attempt to create rules about rules: how may courts be permitted to discover legislative intent? At 91, Fuller states: "With all of its subtleties, the problem of interpretation occupies a sensitive, central position in the internal morality of the law."

and his theories of natural law.[43] While Fuller acknowledges the place of the external

morality of law, his theory of natural law concerns only the inner morality, and is

largely neglectful of that substantive portion. Does this set of scissors cut with only

one blade?

4. Hart/Fuller Debate

Although it is this concept of "inner morality" that distinguishes Professor

Fuller's natural law theory, Fuller is perhaps best known for taking part in the

Hart/Fuller debate, in which he argued that the law is dependent upon external norms,

or the "external morality", for its own interpretation.[44]

Hardly a discussion of Fuller goes by without a mention of the famous

Hart/Fuller debate. This "debate" began with a pair of articles which proposed

antithetical views on the philosophy of law, and which were published simultaneously

in the Harvard Law Review contrasting Fuller's theory of natural law to Hart's theory

of positivism.[45] This debate is variously described as a distinction between what the

---

[43] See John Finnis, "The "Natural Law Tradition" (1986) 36 J Legal Educ 492 at 494. [Finnis, "Natural Law Tradition".] See also D'Amato, "Substantive Natural Law", *supra* note 27.

[44] Frederick Schauer, "A Critical Guide to Vehicles in the Park" (2008) 83 NYU L Rev 1109 [Schauer, "Critical Guide"]. "It is the most famous hypothetical in the common law world." Teachout, *supra* note 3 at 1076-77 posits: "[Fuller] had a significant impact … on the thought and writing of … H.L.A. Hart, the great English positivist with whom Fuller engaged in famous debates over the relationship of morality and law." Fuller, "Positivism and Fidelity To Law" *supra* note 20 at 663: "It is rather because, for example, whether the rule be intended to preserve quiet in the park, or to save carefree strollers from injury, we know, "without thinking," that a noisy automobile must be excluded."

[45] Positivism: "The doctrine that all true knowledge is derived from observable phenomena, rather than speculation or reasoning." Legal positivism: "The theory that legal rules are valid only because they are enacted by an existing political authority or accepted as binding in a given society, not because they are grounded in morality or in natural law." Black's Law Dictionary, 3d ed. The principle articles are: Fuller, "Fidelity to Law", *supra* note 20, and HLA Hart, "Positivism And The Separation Of Law And Morals" (1957) 71 Harv L Rev 593. [Hart, "Separation of Law and Morals"] Note: Technically the Hart/Fuller debate only *started* with these two articles, but it did not end there. After the exchange was published in 1958, Hart published his book, *The Concept of Law* (Oxford: Clarendon Press, 1961) [Hart, *Concept of Law*], in which he criticized Fuller's position. Fuller replied to Hart in *The Morality*

law *is* (positivism) and what the law *ought* to be (natural law), and similar divides

between the text of a rule and its purpose, or the letter of the law and its spirit.[46]

4.a. Positivism

 Professor Hart's essay, "Positivism and the Separation of Law and Morals" as

the title suggests, presents the positivist argument that law should not be confused

with morality; i.e. that there is a need to distinguish law as it 'is' from the law as it

'ought' to be. An issue that is central to Hart's analysis deals with the problem of the

"penumbra", which is when a judge is asked to decide whether a word is to be given a

meaning that is within the rule or statute.[47] Hart describes this problem using the

astronomical analogy[48] of penumbral meanings lying outside of the "core" meaning of

the word in the rule:

> "There must be a core of settled meaning, but there will be, as well, a
> penumbra of debatable cases in which words are neither obviously applicable
> nor obviously ruled out."[49]

 The initial target of Hart's essay was not natural law, but rather the school of

"legal realists"[50], who had over-represented the indeterminacy of law by stressing the

---

of Law (New Haven: Yale University Press, 1964) [Note that I am using the 1969 version, infra] in a chapter called "The Concept of Law". Hart reviewed Fuller's book in 1965 HLA Hart, "Lon L Fuller: The Morality of Law" (1965) 78 Harvard L Rev 1281). Finally, in 1969 Fuller published a revised edition of *Morality of Law, supra*, note 3, section I, which contained a new chapter "Reply to Critics", and which contained a detailed response to Hart's review.

[46] Schauer, "Critical Guide", *supra* note 44 at 1115.

[47] Penumbra: "A surrounding area or periphery of uncertain extent." *Black's Law Dictionary, 3d ed*. [See HLA Hart, "Separation of Law and Morals", *supra* note 45 at 606-615.

[48] The term "penumbra" was coined in 1604 by Johannes Kepler (1571-1630), referring to the "partial shadow outside the complete shadow of an eclipse," from L. pæne "almost" + umbra "shadow".

[49] Hart, "Separation of Law and Morals", *supra* note 45 at 607.

[50] Legal realism is "[t]he theory that law is based, not on formal rules or principles, but instead on judicial decisions that should derive from social interests and public policy *Blacks' Law Dictionary*.", 3d ed.

"difficult appellate cases at the edges of the law".[51] These cases at the edges, or

"penumbral" cases, "necessarily involve determinations of what the law ought to

be".[52] The realist view of law was an invitation for judges to include, within their

conception of legal rules, the purpose, i.e. the morality, that lies behind the rule.

4.a.1. Vehicles in the Park

     In contrast, Hart said that a word must have a "core of settled

meaning"…"some standard instance in which no doubts are felt about its

application".[53] Hart insisted that "the hard core of settled meaning is law in some

centrally important sense" that was distinct from those penumbral meanings.[54] No one

could doubt that these core meanings are what the law 'is'[55], and Hart believed that

there is something about the nature of law that is inconsistent with leaving these core

cases open to evaluation in the light of purported morals:

---

[51] Schauer, "Critical Guide" *supra* note 44 at 1109. Note: Some of the difficulty in following the Hart/Fuller debate comes from the many legal schools of thought that are juxtaposed, sometimes without a clear representation of whose ideas are being defended and whose are being criticized. I have already noted that Fuller is representing his natural law theory in response to Hart's essay, which was meant to critique the school of legal realism. In addition, Hart, himself a positivist, is defending the views of the "Utilitarians", who just happen to share, with the positivists, the "same insistence on the separation of law and morals". (Hart, "Separation of Law and Morals" *supra* note 45 at 601.) Hart describes the Utilitarian doctrine as emphasizing the "purely analytical study of legal concepts" and of law's "distinctive vocabulary"; and the famous "imperative theory…that law is essentially a command."

     Ostensibly, Hart's point is to show how criticism of the Utilitarians does not implicate the positivist view, but Hart spends a lot of time defending the Utilitarians. Another twist is thrown into Hart's commentary when he defends Utilitarian judges against charges of "formalism". (at 610-12.)

[52] Schauer, "Critical Guide", *supra* note 44 at 1110.

[53] Hart, "Separation of Law and Morals", *supra* note 45 at 607.

[54] *Ibid* at 614.

[55] *Ibid* at 612: "[N]o one who wished to use these vices of formalism as proof that the distinction between what is and what ought to be is mistaken would deny that the decisions stigmatized as automatic are law; nor would he deny that the system in which such automatic decisions are made is a legal system. Surely he would say that they are law, but they are bad law, they ought not to be law. But this would be to use the distinction, not to refute it…."

> "[T]o assert mysteriously that there is some fused identity between law as it is and as it ought to be, is to suggest that all legal questions are fundamentally like those of the penumbra. It is to assert that there is no central element of actual law to be seen in the core of central meaning which rules have, that there is nothing in the nature of a legal rule inconsistent with *all* questions being open to reconsideration in the light of social policy."[56]

Hart's unfortunate example of a core meaning was the word "vehicle":[57]

> "A legal rule forbids you to take a vehicle into the public park. *Plainly this forbids an automobile*, but what about bicycles, roller skates, toy automobiles? What about airplanes? Are these, as we say, to be called "vehicles" for the purpose of the rule or not?[58]

This example was meant to demonstrate an instance when it was impermissible for a judge to resort to morality in order to interpret law.[59]

4.a.2. Memorials in the Park

In his "Reply to Professor Hart", Fuller pointed out that, in order to know whether a bicycle is a "vehicle" within the ordinary meaning of a statute and thus is prohibited from the park, first it is necessary for the judge to know the *purpose* behind the statute: i.e. what "ought" to be prohibited from the park.[60] Hart's reliance upon the core meaning as that which jumps to the mind of the ordinary man is very much dependnt upon what the *purpose* of the rule is.

> "If the rule excluding vehicles from parks seems easy to apply in some cases, I submit this is because we can see clearly enough what the rule "is aiming at in general"…"[61]

---

[56] *Ibid* at 615.
[57] Schauer, "Critical Guide", *supra* note 44 at 1119.
[58] Hart, "Separation of Law and Morals", *supra* note 45 at 607. [Italicized for emphasis.]
[59] Schauer, "Crtical Guide", *supra* note 44 at 1114. "The rule excluding vehicles from the park was just that example, and the application of that rule to clear cases in the core was for Hart just that morality-free legal act."
[60] Fuller, "Fidelity to Law", *supra* note 20 at 662-667.
[61] *Ibid* at 663.

As a counter-example, Fuller proposed that a veteran's memorial was to be built in the park, which consisted of a truck, in perfect working order, which had been used in World War II.[62] Would such a vehicle be permitted within the park? Or was this a vehicle a "standard instance", within the core, and thus plainly forbidden?[63]

The flaw in the positivist argument is demonstrated in the most 'crisp' manner when following the letter of the law produces a poor outcome, forcing the judge to choose between a straightforward reading and justice.[64] Fuller provides this crisp example in the hypothetical where a statute makes it a misdemeanor to sleep in the train station.[65] Two men are brought before the judge: one is a passenger who was waiting for a train, which was much delayed, and who fell asleep; the second is an obvious 'forgotten man' of no means and no home, who has settled in at the station, with a pillow and blanket, but was arrested before he had actually fallen asleep.

Fuller proposes that the "obvious instance" that this rule is supposed to prevent is that of a homeless man sleeping on a station bench, and forcing passengers to stand while they wait for their trains.[66] But following the letter of the law would give the result that the sleeping passenger is in violation of the statute; whereas the homeless man, though plainly evincing an *intention* to sleep, was not asleep and thus not subject to the fine.

Both the war memorial and sleeping-in-the-station examples demonstrate that

---

[62] *Ibid*.
[63] *Ibid* at 662-663
[64] Schauer, "Critical Guide", *supra* note 44 at 1116.
[65] Fuller, "Fidelity to Law", *supra* note 20 at 664.
[66] *Ibid*.

"there are no purpose-independent, clear, easy, or core cases."[67] The strength of these examples comes from the obvious contradiction between what the law is intended to do, and the result when the letter of the law is followed: what the law 'is' does not deliver the 'just' result. In order for the law to accomplish its intended task, the judge must look to what the law 'ought' to be.

<u>5. Vagueness</u>

Hart's example of core and penumbra was borrowed from an article called "Vagueness", by Bertrand Russell, whom we shall meet again in the section where we discuss formal systems.[68] "Vagueness" offers many insights into the philosophy that lies behind the is/ought distinction, and perhaps the whole Hart/Fuller debate could be avoided by reading Russell instead. It is curious to find that Russell inspired Hart, because a careful reading of "Vagueness" renders a result that supports Fuller:

> "Someone might seek to obtain precision in the use of words by saying that no word is to be applied in the penumbra, but fortunately the penumbra itself is not accurately definable, and all the vaguenesses which apply to the primary use of words apply also when we try to fix a limit to their indubitable applicability."[69]

<u>6. Riggs v Palmer: Law or Justice?</u>

Riggs v Palmer provides a very crisp 'real-world' example of a court that was forced to choose between following the letter of the law and the interests of "justice".[70] In *Riggs,* 16 year-old Elmer Palmer poisoned his grandfather, Francis,

---

[67] Schauer, "Critical Guide", *supra* note 44 at 1128.
[68] *Ibid* at 1125. Bertrand Russell, "Vagueness" (1923) 1 Australasian J Phil 84. [Russell, "Vagueness"]
[69] Russell, "Vagueness", *ibid* at 87. [Italics added for emphasis.]
[70] *Riggs v Palmer*, (1889) 115 NY 506, 22 NE 188 (CA) [*Riggs*]. (Note that the Court of Appeals in NY is that state's highest court, whereas other states usually designate their highest court as the 'supreme' court. The Supreme Court of NY is that state's court of appeals.)

after Francis had manifested some intent to change those provisions in his will that were favorable to Elmer. The other beneficiaries sued when convicted murderer Elmer Palmer tried to claim the property left to him under the will.

The relevant statutes had prescribed all the ways that a will could be altered or revoked, prohibiting inheritance in cases of fraud, duress or incapacity, but the legislature had neglected to write a law prohibiting a man from inheriting after killing the testator.[71] There was no positive law that would prevent defendant Palmer from coming into his ill-gotten gains, and Palmer had the plaintiff's complaint dismissed in the lower court and on appeal. Both the majority and dissent in *Riggs* had this same understanding of the statute of wills.[72] There was even prior case law where a widow had been allowed to keep her dower, which she had come into after murdering her husband.[73]

Fortunately, or unfortunately for the positivists, "justice" prevailed, and the high court decided that the devise in the will should be declared ineffective to pass title to the enterprising young poisoner. The court based its reasoning on the "universal law", "the general principles of natural law and justice", and on the

---

[71] *Ibid* at 517: "The words of the section of the statute are: "No will in writing, except in the cases hereinafter mentioned, nor any part thereof, shall be revoked or altered otherwise," etc. Where, therefore, none of the cases mentioned are met by the facts, and the revocation is not in the way described in the section, the will of the testator is unalterable. I think that a valid will must continue as a will always, unless revoked in the manner provided by the statutes." See Schauer, "Critical Guide", *supra* note 44 at 1118.

[72] *Riggs*, supra note 70 section II, Justice Earl at 509: "It is quite true that statutes regulating the making, proof and effect of wills, and the devolution of property, if literally construed, and if their force and effect can in no way and under no circumstances be controlled or modified, give this property to the murderer." And Justice Gray at 517:"The statutes of this state have prescribed various ways in which a will may be altered or revoked; but the very provision, defining the modes of alteration and revocation, implies a prohibition of alteration or revocation in any other way."

[73] *Ibid* at 514, referring to *Owens v Owens* 100 (1988) NC 240, 6 SE 794.

common law maxim that no one should be permitted "to acquire property by his own crime".[74]

Although positivists dislike speaking of "justice" because of its moral implications, it is hard to imagine what courts are supposed to be accomplishing when they enforce laws by rote. Surely it is wrong that a murderer should profit from his crime. But if justice is done outside of the positive law, how can this be discerned without recourse to morals?

7. Law and Logic

Along with the Is/Ought dispute, another key distinction between the positivist view and Fuller's natural law theory is the place of logic in law. Hart's discussion of logic comes in the context of *a defense against charges* that positivism imagines that "a legal system "is a closed logical system" in which correct legal decisions can be deduced by logical means … without reference to … moral standards…"[75] Hart says that this description of positivist theorists was misconceived because it ignored those penumbral situations where the law was unclear, and when judges could properly shape their decisions to meet the "growing needs of society…"[76] But in making his defense against taking things to "a dryly logical extreme" and being excessively analytical, Hart minimizes the place of logic as a means of shaping legal theory:

> "But logic does not prescribe interpretation of terms; it dictates neither the stupid nor intelligent interpretation of any expression. Logic only tells you

---

[74] *Riggs, supra* note 70 at 511-13.

[75] Hart, "Separation of Law and Morals", *supra* note 45 at 602.

[76] *Ibid* at 608-9.

hypothetically that *if* you give a certain term a certain interpretation then a certain conclusion follows. Logic is silent on how to classify particulars ‑ and this is the heart of a judicial decision."[77]

7.a. Practical Reason

In contrast to positivism, logic takes a very central role in natural law. Indeed,

practical reason is the hallmark of natural law:

> "A sound theory of natural law is one that undertakes a critique of practical viewpoints, in order to distinguish the practically unreasonable from the practically reasonable…. A theory of natural law claims to be able to identify conditions and principles of practical right-mindedness, of good and proper order among men and in individual conduct." [78]

Natural law theory "is the result of a disciplined effort to clarify the meaning of

ethical concepts in terms of the ultimate ontological structures which they

exemplify… In light of such analysis, universal moral principles may be rationally

justified as founded on real facts…":[79]

> "Norms are founded on facts. The good for any entity depends upon the nature of that entity…. Hence, the natural end of any process or tendency can be adequately determined only by a comprehensive knowledge of the nature to be realized and completed. Norms are not purely arbitrary and preferential. They are grounded on nature."[80]

Fuller's natural law theory also recognizes the importance of logic: the

opportunity for reasoned argument is the "distinguishing characteristic" of

---

[77] *Ibid* at 610.
[78] Finnis, *Natural Law*, *supra* note 14 at 18. cf John Wild, *Plato's Modern Enemies and the Theory of Natural Law* (Chicago: University of Chicago Press, 1953) at 83: Practical reason attempts to determine the proper norms for conduct—not merely what is, *but also what ought to be*. [Italics added for emphasis.]
[79] Wild, *ibid* at 81.
[80] *Ibid* at 83.

adjudication.[81] Also Fuller's "inner morality" of law is largely based on the idea that logical coherence is infused within the fabric of the law.[82] But in section IV I will show how Fuller's treatment of reason differs sharply from the classical theory.

Fuller did not refute Hart on this point by an extended lecture on the epistemology of ethics, but rested primarily in his own assertion:

> "Professor Hart seems to assume that evil aims may have as much coherence and inner logic as good ones. I, for one, refuse to accept that assumption…. I shall have to rest on the assertion of a belief that may seem naive, namely, that coherence and goodness have more affinity than coherence and evil." [83]

Fuller believed that actors within a logical system would pull their actions toward "goodness" when they are forced to explain their decisions rationally.[84] To Fuller it seemed incongruous to say that the *rational* process of the common law "work[ing] itself pure from case to case" was headed toward a future legal system that was "a more perfect realization of iniquity."[85]

7.b. Russell, Whitehead and the Meanings of Words

Fuller invokes both Russell and Whitehead in philosophical support of the prominent place of logic in law.[86] Russell's article on "The Cult of Common Usage"

---

[81] Lon L Fuller and Kenneth I Winston, "The Forms and Limits of Adjudication" (1978) 92 Harv Law Rev 353 at 364. [Fuller, "Forms and Limits"]

[82] Fuller, *Morality of Law*, *supra* note 3, section I at 100.

[83] Fuller, "Positivism and Fidelity to Law" *supra* note 20 at 636.

[84] *Ibid*. Finnis validates this claim: "A tyranny devoted to pernicious ends has no self-sufficient *reason* to submit itself to the discipline of operating consistently through the demanding processes of law, granted that the rational point of such self-discipline is the very value of reciprocity, fairness, and respect for persons which the tyrant, *ex hypothesi*, holds in contempt." Finnis, *Natural Law*, *supra* note 14 at 273.

[85] Fuller, "Fidelity to Law", *supra* note 20 at 636. Fuller is citing Lord Mansfield, from *Ochymund v Barker* (1744) 26 ER 15; 1 Atk 21 [*Ochymund*]; at 33: "a statute very seldom can take in all cases, therefore the common law, that works itself pure by rules drawn from the fountain of justice, is for this reason superior to an act of parliament."

[86] Fuller, "Positivism and Fidelity to Law", *supra* note 20 at 669.

pointed out the futility of relying on "words used in their ordinary meanings" as a

substitute for philosophy.[87] Russell said that even the simplest words, e.g. 'cat' or

even 'word' itself, could not be defined without "(a) a logical theory of classes, and

(b) a psychological understanding of intention."[88]

Whitehead's sentiments took a similar stance, and showed how our human

ability to reason and to create arguments is dependent upon the "repeated word"

within the argument having some invariable meaning.[89] In order to remedy our

"defective language", we invent logical methods, such as algebra, but our insight is

still shrouded in vagueness.[90] We attempt to find "meaningful relations amid the

accidents of history", and use inventions of necessity, numbers for example, to

describe our notion of things.[91] It is through the concurrence of our "necessary"

formal mathematical principles or symbolic logic with the "accidental factors" that

we derive meaningful composition.[92]

In addition to providing these frameworks for discerning meaning out of the

vagueness of the penumbra, *logical words* themselves *are less vague* than those

---

[87] Bertrand Russell, "The Cult of Common Usage" (1953) 3 Brit J Phil Sci 303. [Russell, "Common Usage"]
[88] *Ibid* at 306-7.
[89] Fuller "Positivism and Fidelity to Law", *supra* note 20 at 669, citing Alfred North Whitehead, "Analysis Of Meaning", in *Essays In Science And Philosophy* (New York: Greenwood Press, 1947), 122, 127. Whitehead's essay was originally published under the title, "Remarks", (1937) 46 Philosophical Review 178. [Whitehead, "Remarks"] See the quoted passage at 183.
[90] Whitehead, "Remarks", *supra* note 90 at 183.
[91] *Ibid* at 179-80. "And yet there is no necessity that any special relationship of numbers be in any one instance exemplified. In this way we can observe the curious interweaving of accident and necessity. [para] The notion of 'many things' is a slippery one. There are these ten fingers and there are the ten commandments. In what sense do these fingers and the ten commandments together constitute twenty things? We are here brought up against the difficulty of the subtle change of meaning in familiar notions according to the context in which they occur." *Ibid* at 180.
[92] *Ibid* at 183-4. "And apart from composition there is no meaning, that is to say, there is nothing."

"words which apply to all parts of time and space":[93]

> "There is… less vagueness about logical words than about the words of daily life, because logical words apply essentially to symbols, and may be conceived as applying rather to possible than to actual symbols."[94]

8. Conclusion

I have given a very brief description of Fuller's system of natural law: chiefly the notion of polarity, morality within the law, and the role of logic. Polarity describes Fuller's method of examining those necessary antinomies of law, and trying to achieve some sort of reconciliation between them.

The Hart/Fuller debate was the context for the discussion of positivism and natural law, and the example of the memorial in the park demonstrated how the moral purpose of law was necessary to determining its meaning.

Fuller's view of logic carries on the natural law tradition as practical reason, and shows how logic is necessary to have a basic understanding of language. Fuller also demonstrated the necessity of a purposive view of law in order to make a proper evaluation of a legal judgment. But as I shall show later, Fuller's view of logic was not internally consistent. Further, despite this requirement of a cohesive legal purpose, Fuller's view of natural law is very different in some respects from the classical theory. Fuller's theory lacks an explanation of substantive natural law, and this will be shown to lead to moral relativism.

In the next section I will explain Gödel's theorem and briefly describe the attributes that are relevant to law. Gödel's Theorem, by its own terms is limited to

---

[93] Russell, "Vagueness", *supra* note 68 at 87.
[94] *Ibid* at 88.

the realm of natural numbers, and therefore doesn't actually *prove* anything about Hart or Fuller or law, and so the next section will *highlight the fact* that Manderson's claim is made only in analogy. In order to fully understand this analogy it is important to pay close attention to both the major elements of Gödel's Theorem and also to Gödel's method.

"[I]t can be proved rigorously that in every consistent formal system that contains a certain amount of finitary number theory there exist undecidable arithmetic propositions and that, moreover, the consistency of any such system cannot be proved in the system."   -- Kurt Gödel

Chapter III: Gödel's Theorem

1. Introduction: History of Gödel's Theorem

Although the main question this paper asks is whether Gödel's Theorem is analogous to Fuller's statements concerning the natural law, this section will show that the Incompleteness Theorem does not envision a legal system at all. This can be easily demonstrated by discussing the history of Gödel's Theorem and providing a brief description of what Incompleteness actually means. The history of the Theorem can be summarized through three major advancements in mathematics: 1) demonstration through axioms; 2) axiomization of mathematics; and 3) the development of formal logic.

1.a. Axioms

The first advancement underlying the development of Gödel's Theorem was the axiomatic method. This was demonstrated by the Greek philosopher Euclid in *Elements of Geometry*.[1] The axiomatic method in *Elements* involves proving geometric equivalences through logical deduction: "Axioms", or "postulates", are accepted without proof, and from these other sentences are deduced.[2] Axioms are "general propositions, the truths of which are self-evident, and which are so fundamental, that they cannot be inferred from any propositions which are more

---

[1] Berto, Francesco, *There's Something About Gödel: The Complete Guide To The Incompleteness Theorem*, (Oxford, UK: Wiley-Blackwell, 2009) at 13.
[2] *Ibid* at 13.

elementary; in other words, *they are incapable of demonstration*."[3] The deductive

chains of inference are called "proofs"[4]; and the resulting sentences, or logical

deductions, are called "theorems".[5]

The next step in this chain was the axiomization of arithmetic, credited to

Dedekind and Peano.[6] This involved the phrasing of the natural numbers, and the

operating rules, i.e. addition and multiplication, in the form of axioms.[7] For example,

Peano used just five axioms to describe the set of natural numbers.[8]

1.b. Formal Logic

The last advancement linked to the historic underpinnings of Gödel's theorem

was the development of the modern formal logic system by Frege.[9] Formal language

systems were envisaged by philosophers to be "antidotes to the deficiencies of natural

language", which was often vague or equivocal, and which lacked the rigor necessary

---

[3] John Casey, *The First Six Books of the Elements of Euclid* (Dublin: Hodges, Figgis & Co, 1885) at 12. [Italics added for emphasis.]

[4] *Ibid* at 13: "The Demonstration is the *proof*, in the case of a theorem, that the conclusion follows from the hypothesis; and in the case of a problem, that the construction accomplishes the object proposed." [Italics added for emphasis.]

[5] Berto, *supra* note 1 at 13. Also see Casey, *supra* note 3 at 12: "Propositions which are not axioms are properties of figures obtained by processes of reasoning. They are divided into theorems and problems. *A Theorem is the formal statement of a property that may be demonstrated from known propositions.* These propositions may themselves be theorems or axioms. A theorem consists of two parts, the hypothesis, or that which is assumed, and the conclusion, or that which is asserted to follow therefrom. Thus, in the typical theorem, If X is Y, then Z is W, … the hypothesis is that X is Y , and the conclusion is that Z is W ." [Italics added for emphasis.]

[6] Berto, *supra* note 1 at 14.

[7] *Ibid* at 15: Peano's five axioms of Natural numbers are rendered as the following: "(P1) Zero is a number. (P2) The successor of any number is a number. (P3) Zero is not the successor of any number. (P4) Any two numbers with the same successor are the same number. (P5) Any property of zero that is also a property of the successor of any number having it is a property of all numbers."

[8] *Ibid* at 15: "(P1) Zero is a number. (P2) The successor of any number is a number. (P3) Zero is not the successor of any number. (P4) Any two numbers with the same successor are the same number. (P5) Any property of zero that is also a property of the successor of any number it is a property of all numbers."

[9] *Ibid* at 16.

to avoid a false deduction – from a true premise to a false conclusion.[10] Another

related problem with natural language was that of paradox: an argument starts with

rational principles and proceeds through valid reasoning to a contradictory

conclusion.[11] As shall be shown later, many paradoxes are the result of a natural

language's limited ability to refer to itself in a meaningful way.[12]

The *ideal* formal language is one "where rigorous science could be

formulated: languages whose syntax was to be absolutely precise, and whose

expressions were to have completely precise and univocal meanings."[13] Through the

use of formal languages, logicians and mathematicians can make statements about

systems, and offer logical proofs by translating sequences into an artificial symbolic

language. An example of a formal expression can be seen in the statement of the

Russell Set, R:

$$R = \{x|\ x \notin x\}$$

which translates into English: "R is the set of all and only those things x that are not

members of themselves."[14]

1.c. Formal Systems

Combining all of these advancements brings us to the concept of a formal

system: an axiomatic system, whose axioms are expressed in a formally defined

---

[10] *Ibid* at 15-16.
[11] *Ibid* at 4.
[12] *Ibid* at 10-13.
[13] *Ibid* at 16.
[14] *Ibid* at 31. Note: There is a paradox contained within this expression. Can you see it? Answer: "R $\in$ R $\leftrightarrow$ R $\notin$ R, that is R belongs to itself if and only if it doesn't." *Ibid* at 32.

language, and rules of reasoning that are used to derive the theorems of the system.[15]

Along these lines, axioms such as those created by Peano could be then translated

into a formal language. Thus, the axiomatic statement: "Any two numbers with the

same successor are the same number"; becomes: "$\forall x \forall y(x' = y' \rightarrow x = y)$".[16]

After the development of this formal method, mathematicians were expressing

an ambition to provide a purely logical foundation for arithmetic, which Bertrand

Russell termed "Logicism".[17] Various longstanding conjectures, such as those posed

by Fermat[18] and Goldbach[19], had caused some to wonder "whether there is any

guarantee that all arithmetical problems posed by mathematicians can be solved…."[20]

In 1900, the greatest mathematician of the age, David Hilbert, gave a talk that

outlined the state of mathematics at that time.[21] Hilbert pointed out that many of the

notions commonly taught in math actually lead to paradox, and complained that this

was intolerable for mathematics, which he saw as the "paragon of reliability and

truth".[22] Hilbert proposed to address this crisis by producing a complete

---

[15] Torkel Franzén, *Gödel's Theorem: An Incomplete Guide to Its Use and Abuse* (Wellesley, MA: A K Peters, Ltd. 2005) at 16. [Franzén, *Gödel's Theorem*]

[16] Berto, *supra* note 1 at 58-60. It should be noted that the term "axiom" has a slightly different understanding than that which is used in everyday language. Axioms in formal systems are not assumed to be irreducible, but strictly relative to a formal system. "Any sentence A in a formal language can be chosen as an axiom in a formal system." Franzén, Gödel's Theorem, *supra* note 12, section I, at 19. Note: Here the example is in predicate logic, while in a later section I describe the basic constructions of law as an example of propositional logic. For the purposes of this paper it will not be necessary to describe all of formal logic in detail.

[17] Berto, *supra* note 1 at 16-17.

[18] Franzén, *Gödel's Theorem*, *supra* note 15 at 11: Femat's conjecture "states that no equation of the form $x^n + y^n = z^n$ with n greater than 2 has any solution in positive integers."

[19] *Ibid* at 10: "Godbach's conjecture, "Every even number greater than 2 is the sum of two primes," has not yet been either proved or disproved."

[20] *Ibid* at 15.

[21] Berto, *supra* note 1 at 39.

[22] *Ibid* at 39; See David Hilbert, "On the Infinite", translation by van Heijenoort, *From Frege to*

formalization of arithmetic: all logical and arithmetical principles of mathematics would be translated into a formal system.[23]

At last I can introduce Kurt Gödel, who in 1931 was working to help complete Hilbert's formalization program.[24] Gödel presented his Incompleteness Theorem in a paper titled "On formally undecidable propositions of Principia Mathematica and related systems I" which showed that Hilbert's program could not be justified within any *single* formal system.[25]

2. 1st Incompleteness Theorem

There are actually two Gödel's Incompleteness Theorems.[26] Gödel's 1st Incompleteness Theorem can be phrased semantically[27] as:

> "Any *consistent formal system* S within which a *certain amount of elementary arithmetic* can be carried out is *incomplete* with regard to statements of elementary arithmetic: there are *such statements* which can neither be proved, nor disproved in S."[28]

Gödel: A Source Book in Mathematical Logic, 1879-1931 (Cambridge: Harvard University Press, 1967) at 375.

[23] Berto, *supra* note 1 at 39-40. One notable effort towards this end was the publication of Russell and Whitehead's three-volume *Principia Mathematica* (PM) in 1910-1913, which proposed a "system of axioms and rules of reasoning within which all of the mathematics known at the time could be formulated and proved." Bertrand Russell and Alfred North Whitehead, *Principia Mathematica*, Vols 1-3, Cambridge: University Press, (1910-1913). [Russell and Whitehead, *Principia Mathematica*] See Franzén, *Gödel's Theorem*, *supra* note 15 at 2. Note: I use the term "crisis" to describe a situation where a field of study can no longer explain its own findings within the existing paradigm.

[24] Berto, *supra* note 1, at 46.

[25] Franzén, *Gödel's Theorem*, *supra* note 15, at 2, 16.

[26] *Ibid* at 2-3.

[27] Note: "[S]emantics has to do with the relationship between the linguistic signs (words, noun phrases, sentences) and their meanings, the things those signs are supposed to signify or stand for. Syntax, on the other hand, has to do with the symbols themselves, with how they can be manipulated and combined to form complex expressions *without taking into account their (intended) meanings*." [Italics added for emphasis.] Berto, *supra* note 1 at 4.

[28] Franzén, *Gödel's Theorem*, *supra* note 15 at 16. Note: This is actually a restatement of Gödel's 1st Incompleteness Theorem in conjuction with Rosser's subsequent proof. Originally, Gödel had stated that the 1st Theorem be ω-consistent. (Omega consistency). ω- consistency is a stronger property than plain consistency. In 1936, Rosser showed that the 1st Incompleteness Theorem could be strengthened so that it was only necessary to show ordinary consistency. See: Franzén, *supra* note 15 at 3. See also

2.a. Consistent

To explain the meaning of this theorem, it is necessary to define the italicized terms.[29] "Consistent", as might be expected, has a technical and precise meaning in the terminology of formal systems.[30] A formal system S is consistent if, for any formula of the formal language L it is built on, the system does not prove both the formula and its opposite: that is, it does not prove a contradiction.[31]

Consistency was a key element in Hilbert's metamathematic scheme. "Metamathematics" is the study of what can and cannot be *proved* in mathematics, and is also referred to as *proof theory*.[32] Hilberg's proposal was to solve the problems of mathematical paradox by "*proving metamthematically the consistency of formalized arithmetic via purely finitary methods*."[33] Thus, consistency is vital to the Hilbert scheme because a system that does not prove any contradictions would therefore be free from paradox.

Kurt Gödel, "On Formally Undecidable Propositions of Principia Mathematica and Related Systems I", translated by Jean van Heijenoort, *Frege and Gödel: Two Fundamental Texts in Mathematical Logic,* (Cambridge: Harvard University Press, 1970) at 98: "Theorem VI. *For every ω-consistent recursive class* κ *of* FORMULAS *there are recursive* CLASS SIGNS *r such that neither v* Gen *r nor* Neg(*v* Gen *r) belongs to* Fig(κ) (where *v* is the FREE VARIABLE of *r*)." [Gödel, "Formally Undecidable Propositions"]

[29] A "formal system" was already described *supra* at note 15.

[30] Franzén, *Gödel's Theorem*, *supra* note 15 at 4, 77. Berto, *supra* note 1 at 136.

[31] Berto, *supra* note 1 at 43.

[32] *Ibid* at 42-3.

[33] *Ibid* at 43. [Italics in original.] See an explanation of "finitary" at 44: "Hilbert was never totally explicit in defining what was meant by "finitary methods". The German word used by Hilbert was finit…. Undoubtedly Hilbert wanted these methods for proving the consistency of formalized arithmetic to be absolutely *safe*….such methods should not involve in any way the concept of actual infinity….[U]nreliable Cantorian infinite sets were indeed at the heart of the set-theoretic paradoxes…." [Italics in original.]

2.b. Certain Amount

I have already described the concept of a formal system, but how much arithmetic is the "certain amount" to which Gödel refers? For purposes of the Gödel theorem, a system S needs to be capable of proving "all arithmetical statements that can [be] established by means of a more or less lengthy mechanical computation."[34] The theory of numbers to which Gödel's Theorem most classically applies is the axiomatized system of natural numbers, Peano Arithmetic.[35]

2.c. Completeness

As with consistency, there is an understanding of *completeness* in a natural language sense, but in formal systems, completeness has a very specific and technical meaning.[36]A formal system S is said to be syntactically complete when, for any given formula, S either proves the formula or proves its negation; i.e. it either proves or refutes the formula.[37] "A syntactically complete formal system…is a system that can "make up its mind" on any formula of its underlying formal language."[38]An incomplete system would be one where some sentence, A, which is in the language of the system, is not *formally decidable* in the system.[39]

2.d. The Gödel Sentence

There are types of statements that Gödel says cannot be either proven or disproven in these types of formal systems. Returning once more to the idea of

---

[34] Franzén, *Gödel's Theorem*, *supra* note 15 at 23.
[35] Berto, *supra* note 1 at 55. See also Gödel, "Formal Undecidable Propositions", *supra* note 28 at 91: "P is essentially the system obtained when the logic of PM is superposed upon the Peano axioms."
[36] Franzén, *Gödel's Theorem*, *supra* note 15 at 4, 77. Berto, *supra* note 1 at 136.
[37] Berto, *supra* note 1 at 48.
[38] *Ibid* at 48.
[39] Franzén, *Gödel's Theorem*, *supra* note 15 at 28; Berto, *supra* note 1 at 48.

paradox, I will introduce the Liar of Epimenides: It seems that the philosopher

Epimenides was a Cretan who was famous for saying that Cretans always lie.[40] The

paradox is that, if Cretans always lie, and Epimenides is a Cretan, then Epimenides is

lying. But if Epimenides is lying, then it can't be true that Cretans *always* lie…

      The sentence that Gödel says cannot either be proven or disproven is closely

related to the liar[41], but with one important difference. Instead of making a claim on

truth, the "Gödel sentence" – "G_S" says, about itself, that it is not "*provable*": i.e. The

Gödel sentence "G_S" says "G_S is not provable in S."[42] Attempting to prove this

sentence will result in problems: If G_S *is* provable in S, then S is not a sound[43] system

because it proves a false sentence: G_S; If G_S is not provable, then G_S is true because

G_S asserts it is not provable. However since G_S is a true sentence that is in the

language of the system S, and G_S is not provable, then S is a semantically *incomplete*

formal system.[44]

3. 2nd Incompleteness Theorem

      The 2nd Incompleteness Theorem is closely related[45] to the 1st, and can be

semantically rendered:

---

[40] Berto, *supra* note 1 at 6. "Although [this] is not a real paradox in the strict sense of a sentence which, on the basis of our *bona fide* intuitions, would entail a violation of the Law of Non-Contradiction, [i]t is a sentence that, on the basis of those intuitions, cannot be true."

[41] Gödel, "Formal Undecidable Propositions", *supra* note 28 at 89.

[42] Berto, *supra* note 1 at 50. See Gödel, "Formal Undecidable Propositions", *supra* note 28 at 89: "We therefore have before us a proposition that says about itself that it is not provable [in PM]…."

[43] Note: A semantically sound system is a formal system that proves only truths. Berto, *supra* note 1 at 49.

[44] *Ibid* at 50.

[45] Note: The 2nd Incompleteness Theorem is a corollary of the 1st Incompleteness Theorem; that is, the 2nd can be deduced from the 1st. See Franzén, *Gödel's Theorem*, *supra* note 15 at 6.

"For any consistent formal system S within which a certain amount of elementary arithmetic can be carried out, the consistency of S cannot be proved in S itself."[46]

The explanation of the 2nd Incompleteness Theorem can be quickly derived from the first. We have already shown that if G_S is provable, then S is not sound. Therefore if S *is sound*, then G_S is *not provable*. We can weaken that statement to one concerning consistency because soundness entails consistency.[47] Thus the conditional statement: "If S is *consistent*, then G_S is not provable in S."[48] Since that statement is provable in S, the consequent of this conditional is G_S itself. (G_S, as you will recall, *states* that G_S is not provable.) Therefore the phrase can be shortened to: "If S is consistent, then G_S."[49]

Now if we were to suppose that S could prove its own consistency, then within the system S would be proof of the claim that "S is consistent."[50] That phrase would in turn be proof of the antecedent of the aforementioned conditional statement: "If S is consistent, then G_S." The application of *modus ponens*[51] would then prove G_S; but the 1st Theorem has already shown that G_S is *not provable* in S.[52] Therefore if S is consistent, then S cannot prove its own consistency.

---

[46] Franzén, *Gödel's Theorem*, *supra* note 15 at 34.
[47] Berto, *supra* note 1 at 49.
[48] *Ibid* at 51. [Italics in original]
[49] *Ibid*.
[50] *Ibid*.
[51] Note: Modus ponens is a rule of inference following the form: If Shelley teaches at Osgoode, then Shelley must be a lawyer. Shelley teaches at Osgoode. Therefore Shelley is a lawyer. In this case: If S is consistent, then G_S. S is Consistent. Therefore G_S.
[52] Berto, *supra* note 1 at 51.

Gödel summarizes the two theorems as follows: "[I]t can be proved rigorously that in every consistent formal system that contains a certain amount of finitary number theory there exist undecidable arithmetic propositions and that, moreover, the consistency of any such system cannot be proved in the system."[53] Understanding the 1st and 2nd Incompleteness Theorems as this conjunction might be helpful because the legal literature does not make any distinction between them.[54] Therefore, this paper will adopt Franzén 's convention of using "Gödel's Incompleteness Theorem" to refer to "the conjunction of these two theorems, or to either separately."[55]

4. Application of Gödel's Theorem to the Law

Gödel's Theorem is not directly applicable to legal systems.[56] This can be clearly shown by breaking the definition of the theorem down into its constituent elements and showing that the common law does not meet any of them.[57] The overarching proof here is that, while there may be similarities in the law to those terms used in the Incompleteness Theorem, the ordinary meaning of the terms is not applicable to how they are understood within a formal system.[58]

---

[53] Gödel, "Formally Undecidable Propositions", *supra* note 28 at 107.

[54] For example, see Mark Brown and Andrew Greenberg, "On Formally Undecidable Propositions of Law: Legal Indeterminacy and the Implications of Metamathematics" (1992) 43 Hastings LJ 1439, which commonly refers to "Gödel's Theorem", without explaining that there are two incompleteness theorems.

[55] Franzén, *Gödel's Theorem*, *supra* note 15 at 2-3.

[56] See Berto, *supra* note 1 at 134: "[T]here exists no connection whatsoever between Gödel's Theorem and social organizations. The same holds for similar attempts to extend incompleteness to juridical…contexts."

[57] An element is a constituent part of a claim that must be proved for the claim to succeed. *Black's Law Dictionary*, 7th Ed.

[58] Franzén, *Gödel's Theorem*, *supra* note 15, at 77.

4.a. The Common Law is Not a Formal System

First, it can be shown that law is not a formal system.[59] It is nothing like a formal system. The law is written in natural language and not in a formal language.[60] While it may seem that the law contains a great deal of formal language, "nobody would seriously claim that there is any such thing as the formally defined language, the axioms, and the rules of inference of [the law]."[61]

Since the law is written in a natural language, it would still be prone to all of the errors that the formal languages sought to avoid.[62] The law retains all the "inherent fuzziness" of natural language, and will never have the complete precision of a formal language.[63] "[N]o expression will ever fully capture the essence, let alone the penumbra, of a right or rule."[64]

The need for a formal system is intrinsic to the Incompleteness Theorem. "Gödel never wanted [the Incompleteness Theorem] to apply to anything but formal systems, that is, formal theories satisfying the Fundamental Property"[65] of formal systems: "S is a formal system only if the set of its theorems is (computably) enumerable."[66] In the introduction to his proof, Gödel describes a formal system:

---

[59] *Ibid* at 78.
[60] *Ibid*.
[61] *Ibid*.
[62] Berto, *supra* note 1 at 15-16.
[63] Steven D Jamar, "This Article Has No Footnotes n1: An Essay On RFRA n2 and the Limits Of Logic in the Law" (1997) 27 Stetson L Rev 559 at 560.
[64] *Ibid*.
[65] Berto, *supra* note 1 at 136.
[66] *Ibid* at 64. See also Gödel, "Formally Undecidable Propositions", *supra* note 28 at FN 70 on 107, "In my opinion the term "formal system" or "formalism" should never be used for anything but [Turing's definition of the general notion of a formal system]….[The] characteristic property [of a formal system] is that reasoning in them, in principle, can be completely replaced by mechanical devices."

"The formulas of a formal system…in outward appearance are finite sequences of primitives signs (variables, logical constants, and parentheses or punctuation dots), and it is easy to state with complete precision *which* sequences of primitive signs are meaningful formulas and which are not. Similarly, proofs, from a formal point of view are nothing but finite sequences of formulas (with certain specifiable properties.)…In particular, it can be shown that the notions "formula", "proof array", and "provable formula" can be defined in the system…"[67]

The law has its own particular understanding of formalism that is incompatible with the meaning understood within the Incompleteness Theorem.[68] In short, the mathematical definitions of formal systems and formalism do not take in the law, and the legal definition of formalism does not describe mathematics.

The startling discovery of the Incompleteness Theorem was that certain formal systems could never be complete: there was always going to be one sentence that was not provable within the system.[69] If the same were asserted about a legal system, i.e. that there is *one* sentence that is not provable, even the most casual legal scholar would reckon that this statement vastly underestimates the number of

---

[67] Gödel, "Formally Undecidable Propositions", *supra* note 28 at 88. [Italics in original; citations omitted.]

[68] Legal formalism: The theory that law is a set of rules and principles independent of other political and social institutions." *Blacks Law Dictionary*, 7th Ed. cf Legal Realism: The theory that law is based, not on formal rules or principles, but instead on judical decisions that should derive from social interests and public policy. See also Gödel, "Formal Undecidable Propositions", *supra* note 28 at FN 70 on 107. Similarly, Professor Weinrib presents formalism as the separation between the juridical and the social/political realms: "The formalist understanding of the juridical, as opposed to the political, centers on the immanence of the legal forms to the intelligibility of the interactions that they order.… The judge is prohibited from orienting the juridical relationship to some external goal of the judge's choosing." Ernest J Weinrib, "Legal Formalism: On the Immanent Rationality of Law" (1988) 97 Yale L J 949 at 987. See also at 971: "Formalism insists on the integrity of the law's justification." *At* 965: "The formalist separation of law from politics reflects this distinction between immanent and instrumental understandings. Politics is differentiated from law to the extent that *politics is the domain of collective instrumentalist purposes*." [Italics added for emphasis.] Also, Oakeshott, "The Vocabulary of a Modern European State" (1975) 23 Pol Stud 409 at 412 : "To call a court 'political' is merely to deny it the character of a court of law."

[69] See Gödel, "Formally Undecidable Propositions", *supra* note 28 at 90: "The precise analysis of this curious situation leads to surprising results concerning consistency proofs for formal systems…"

unprovable sentences:[70] No one could seriously argue that a legal system is anywhere near as rigorous as a formal system. If the law were expressed within a formal system, and only susceptible to Gödelian Incompleteness, it would necessarily be *more* precise than it is currently. To say that the law is flawed because of Gödel's Theorem would be to strain out a gnat and swallow a camel.

4.b. Common Law Systems Lack Formal Consistency

When we speak of the property of consistency, we are once again confronted with the conflict between the common understanding of the term within a legal context and its specific, technical meaning within the Incompleteness Theorem. In addition, there is also a difference between how judgments are made within these two systems.

To review, "[a] formal system S is said to be consistent if, for any formula α of the formal language L it is built on, the system does not allow one to prove both α and $\neg\alpha$."[71] The casual reader might be taken aback to see Greek letters[72] and the odd hook figure[73], but these are the primitive symbols that are the tools of formal logic.[74]

In order to understand this definition more fully, we must look into the distinction between syntax and semantics. Semantics talks about *the relationship between linguistic signs -- words, phrases and sentences; and their meanings* – the

---

[70] "Suffice it to suggest here that the number (or more appropriately the density) of Godelian undecidable propositions in law may vastly exceed the number in mathematics." Anthony D'Amato, "Pragmatic Indeterminacy" (1990-1991) 85 Nw UL Rev 148 at 172-173.

[71] Berto, *supra* note 1, at 43.

[72] α = alpha

[73] $\neg$ is the negative

[74] Gödel, "Formally Undecidable Propositions", *supra* note 28 at 88.

things that the signs are supposed to stand for.[75] Syntax refers to "the symbols

themselves, and how they can be manipulated and combined to form complex

expressions, without taking into account their intended meanings."[76] Where the

common law is more often engaged in a semantic inquiry[77], formal logic systems deal

primarily with syntax.[78] A purely syntactic concept is one that refers "only to the

formal rules of constructing proofs" and makes no reference to "the truth or falsity of

statements in the language" or "the meaning or interpretation of a language".[79]

We already know that a formal system consists of a formal language, a set of

axioms and a set of rules of inference.[80] When we speak of a "formula" within a

formal system, we refer to a finite string of symbols that can be joined with other

strings according to the well-defined rules of the system.[81] A formula, which can be

either a theorem or an axiom, has been translated into a formal language and thus

deprived of any reference to meaning or truth.[82] Deductions in the formal system "are

just the manipulations of strings of symbols that begin with the axioms and, via the

transformations allowed by the rules of inference, produce the theorems."[83] The

---

[75] Berto, *supra* note 1 at 4.

[76] *Ibid* at 4.

[77] See Fuller, "Positivism and Fidelity to Law", *supra* note 20, section II at 662: "The task of interpretation is commonly that of determining the meaning of the individual words of a legal rule, like "vehicle" in a rule excluding vehicles from a park."

[78] Berto, *supra* note 1 at 55. See also J Lacy O'Byrne Croke, *Logic* (London: Robert Sutton, 1906) at 3, 6-7: "Formal Logic is the science of the necessary laws of thought"; it is "concerned only with that which is essential to and distinctive the thinking process." Formal logic "is so far indifferent about the matter of a concept…so that a purely symbolical expression, in which the particular nature of the material elements is kept altogether out of sight, may be made to serve its purpose…."

[79] Franzén, *Gödel's Theorem*, *supra* note 15, section I at 28.

[80] *Ibid* at 72.

[81] Berto, *supra* note 1 at 41.

[82] *Ibid* at 40-1.

[83] *Ibid* at 41.

axioms are accepted without proof, and the theorems are provable within the system.[84] The relations of dependence between the axioms and the theorems are fully "visible": "their properties can be read off from the purely syntactic and structural connections between the … strings."[85]

4.c. Example of a Formal Theorem

Let's make an example for the "formula α". If we want to say "Vehicles are not permitted in the park,"[86] then we can use the formal expression,

$\forall x\, [V(x) \rightarrow \neg P(x)]$

Rendered semantically: "For every object in the universe ($\forall x$), if it is a vehicle ($V(x)$), then it is not permitted in the park, ($\neg P(x)$)."

When we say that a system cannot prove both α and $\neg \alpha$ in L, this means that it cannot happen that the final lines in two formal proofs in L will contain both the string just given and an occurrence of the string,

$\neg \forall x\, [V(x) \rightarrow \neg P(x)]$.

Nor will the proofs contain a similar contradiction,

$\exists x\, [V(x) \rightarrow P(x)]$,

which says that *some* object in the universe ($\exists x$) is a vehicle that may be permitted in the park.

Note that the consistency of a given system L, is mathematically *provable*:[87]

---

[84] *Ibid* at 13, 41.
[85] *Ibid* at 41.
[86] See the discussion of vehicles in the park in section II at 4.a.1.

"Thus, in a general characterization of formal systems, we need to make use of the general notion of a mechanically computable property…[which] applies equally to properties of sentences and finite sequences of sentences in a formal language."

4.d. Contrasting Formal and Legal Consistency

The formal idea of consistency may be contrasted with the common legal understanding. The most obvious application of consistency to a legal system would probably be most apropos to the concept of *stare decisis*.[88] Certainly the law aspires to consistency: "it is built into the very nature of the way we think about the law."[89] "[T]he very word "law" implies a requirement of consistency."[90] But the law might change over time, and thus give a different result at a later date.[91] Also there may be different interpretations of the law for different jurisdictions. While these differences may be the result of the consistency of higher laws, (i.e. a parliament's ability to change its laws, or a government institution being able to create laws within its own sphere), the resulting consistency at the level of case history still falls short of that within a formal system.[92]

---

[87] Franzén, *Gödel's Theorem*, *supra* note 15, section I at 37-8, 133-4. Note: Remember that while the 2nd Incompleteness Theorem states that a formal system expressing Peano Arithmetic cannot prove its own consistency, such a formal system may be provable in *another* formal system. In fact PA is provable in other set theories! *Ibid* at 37-8; 109.

[88] John M Rogers and Robert E Molzon, "Some Lessons About The Law From Self-Referential Problems In Mathematics" (1992) 90 Mich L Rev 992 at 999-1000. *Stare decisis* [Latin "to stand by things decided"] The doctrine of precedent, under which it is necessary for a court to follow earlier judicial decisions when the same points arise again in litigation. *Black's Law Dictionary*, 3d ed.

[89] Rogers and Molzon, *ibid* at 1000.

[90] *Ibid* at 1016.

[91] *Ibid* at 1001.

[92] *Ibid*: "In the case of the different jurisdictions, the different results are but consistent applications of the higher rule (metarule) that a state through its governmental institutions should be able to determine its own…law. In the case of the different points in time, the different results are but consistent applications of the higher law (metarule) that Congress can modify income tax liability from year to year."

4.e. Judgment

Another major difference between the formal and legal interpretation pertains to how consistency is met within the legal framework, namely judgment.[93] All humans are prone to error, and it may be presumed that a mathematician can make a mistake as often as a judge. But a formal system is mathematically *provably* consistent or inconsistent, whereas the legal system is limited by its natural language, and lacks mathematical rigor.[94] The judgments handed down by courts are not called "proofs" but rather "opinions".[95] If wrong opinions could be corrected by merely showing where a trial judge added wrongly, it hardly seems that there would be any need for an appellate court. The system of appellate courts is based on the idea of maintaining consistency by correcting the errors in the judgments of the lower courts.[96]

In a related vein, another difference can be easily made out that legal judgments *are* capable of proving their own consistency. If a party to a lower court decision feels that the court did not follow precedent, he can appeal that judgment to the higher court.[97] The higher court will then determine whether precedent has been followed, i.e. whether there is consistency in the judgments. Thus the legal system

---

[93] *Ibid* at 1000-1001.

[94] *Ibid* at 1016: [S]ystems or bodies of law…contain rules of law that cannot be derived within the system.

[95] An opinion is a court's written statement explaining its decision in a given case… *Black's Law Dictionary*, 3d ed.

[96] Rogers and Molzon, *supra* note 88 at 1000.

[97] A precedent is a decided case that furnishes a basis for determining later cases involving similar facts or issues. A *binding precedent* is a precedent that a court must follow. Black's Law Dictionary, 3d ed.

determines its own consistency. The 2nd Incompleteness Theorem is plainly not

applicable to the legal system then, because it states that those formal systems, which

fit within the Theorem's definition, cannot determine their own consistency.

<u>4.f. Discretion</u>

Another related subject is that of discretion. Judges have the discretion to fill

the gaps when it is necessary for the decision and the previous decision leaves room.[98]

The resulting decision is still consistent within the meaning of the law, but far short of

the formal meaning.

Yet another, less-often discussed matter of discretion, is the common law

practice of jury nullification.[99]A sovereign jury can decide not to uphold the law if

following the settled law would offend the jury's sense of justice. This type of jury

decision is protected by the Constitution and cannot be overruled on appeal in the

United States.[100] But while jury nullification may strike a blow for liberty, it is also

contrary to the goals of consistency in rules.

In summary, the formal term "consistent" is not applicable to the legal system.

The formal understanding is not attainable within a system using a natural language,

and it is contrary to the legal decision-making framework.

---

[98] Rogers and Molzon, *supra* note 88 at 1001-2. See also Farago, John, "Intractable Cases: The Role of Uncertainty in the Concept of Law" (1980) 55 NYU L Rev 195 at 207.

[99] Jury nullification is a jury's knowing and deliberate rejection of the evidence or refusal to apply the law either because the jury wants to send a message about some social issue that is larger than the case itself or because the result dictated by law is contrary to the jury's sense of justice, morality, or fairness. Black's Law 7th Ed.

[100] *Georgia v Brailsford* (1794) 3 US 1 [*Brailsford*];US Constitution, 5th Am: "nor shall any person be subject for the same offense to be twice put in jeopardy of life or limb…" cf *R v Krieger*, [2006] 2 S.C.R. 501, 2006 SCC 47 at para 27: "It has since then been well established that under the system of justice we have inherited from England juries are not entitled as a *matter of right* to refuse to apply the law — but they do have the *power* to do so when their consciences permit of no other course."

4.g. Completeness Does Not Apply to the Legal System in the Sense That It is Used

in the Incompleteness Theorem

The formal understanding of "completeness" has no counterpart in law. Even

if its ordinary meaning were applied to the legal system, it can be seen to have a

different meaning from what is found in the formal system.

To review, a formal system S is said to be syntactically *complete* when, for

any given formula, S either proves or refutes the formula.[101] An *incomplete system*

would be one where some sentence A, which is in the language of the system, is not

formally decidable in the system.[102]

Although the Incompleteness Theorem talks about incompleteness in formal

systems using Peano arithmetic, it does not imply that *every* formal system is

incomplete.[103] There are also *complete* formal systems: Euclidean geometry is a

complete system in the sense of the Incompleteness theorem, as is the elementary

theory of *real* numbers.[104]

As was shown with consistency, completeness is a formal concept that is

mathematically provable.[105] Another aspect of the proof of completeness is

decidability, which necessitates that *every* theorem of the system is computably

---

[101] Berto, *supra* note 1 at 48.

[102] Franzén, *Gödel's Theorem*, *supra* note 15, at 28; Berto, *supra* note 1 at 48.

[103] Franzén, *Gödel's Theorem*, *supra* note 15 at 25.

[104] *Ibid* at 25, 127.

[105] *Ibid* at 98. "Central to the proof of the second incompleteness theorem is the notion of an ordinary mathematical proof being formalizable in a certain formal system. This means that for every step in the proof there is a corresponding series of applications of formal rules of inference in the system, so that the conclusion of the proof, when expressed in the language of the system, is also a theorem of the system."

enumerable:[106] "This basic property implies that it is always possible to search for a proof of a given sentence A in a mechanical way, and if there is any such proof, it will eventually be found."[107]

This idea of completeness is a foreign one to the law. This can be clearly demonstrated by showing analogues of the formal notion of completeness.[108] For the legal system to be complete in the formal sense, that would mean that every statement that makes sense in a legal system could be held to be decidable by that system, "in the sense that either that statement or its negation can be held to be explicitly or implicitly asserted" in that legal system.[109] "[T]he Constitution is incomplete, since it does not tell us whether or not wearing a polka dot suit is allowed in Congress…. We do not need Gödel to tell us that [the law in] in this sense incomplete. Trivially, any doctrine, theory, or canon is incomplete in this analogical sense."[110]

Testing the law's completeness would also be a more difficult matter. As would be expected, there is no "basic property" that allows every law, or whatever would be the counterpart to the formal system's "theorem" to be computably enumerable.[111]

---

[106] *Ibid* at 72. Note: This is known as the "Basic property of formal systems": The set of theorems of a formal system is computably enumerable.
[107] *Ibid* at 72.
[108] *Ibid* at 78-9.
[109] *Ibid* at 79.
[110] *Ibid* at 79.
[111] Rogers and Molzon, *supra* note 88 at 1016: "Our proposition is thus that systems or bodies of law are inherently incomplete in the sense that they contain rules of law that cannot be derived within the system."

4.h. There is No Arithmetic Element in the Common Law

This element seems the most trivial and obvious, but perhaps the most often overlooked in popular comparisons to Gödel's Theorem. The Incompleteness Theorem is describing formal systems that can "carry out" "a certain amount of arithmetic".[112] We have already shown that the theorem is referring to formal systems containing Peano Arithmetic.[113]

Although there are legal scholars who might claim to invent clever legal analogies that they liken to the Incompleteness Theorem,[114] the legal system does not talk about arithmetic in this formal sense.[115] "The incompleteness theorem is a mathematical theorem precisely because the relevant notions of truth and provability are mathematically definable."[116]

Legal systems only deal with numbers in an ancillary fashion; e.g. delimiting penalties for driving infractions[117], providing sentencing guidelines[118], or statutes of limitations.[119] No legal system attempts to break down the theory of natural numbers

---

[112] Franzén, *Gödel's Theorem*, *supra* note 15 at 16, 34.

[113] *Ibid* at 23, Berto, supra note 1, at 55. Gödel, "Formally Undecidable Propositions", *supra* note 28 at 91.

[114] Brown and Greenberg, *supra* note 54 at 1477-79.

[115] Franzén, *Gödel's Theorem*, *supra* note 15 at 85-6.

[116] *Ibid* at 86.

[117] For example: California Vehicle Code Section 23103 Reckless Driving. (a) A person who drives a vehicle upon a highway in willful or wanton disregard for the safety of persons or property is guilty of reckless driving.

[118] For example: California Penal Code Section 245(a) (1) Any person who commits an assault upon the person of another with a deadly weapon or instrument other than a firearm or by any means of force likely to produce great bodily injury shall be punished by imprisonment in the state prison for two, three, or four years, or in a county jail for not exceeding one year, or by a fine not exceeding ten thousand dollars ($10,000), or by both the fine and imprisonment.

[119] For example: California Code of Civil Procedure Section 335. The periods prescribed for the commencement of actions other than for the recovery of real property, are as follows:… 335.1. Within two years: An action for assault, battery, or injury to, or for the death of, an individual caused by the wrongful act or neglect of another.

into a formal set of axioms, but this is precisely the type of formal system that the Incompleteness Theorem describes.

5. Conclusion: The Incompleteness Theorem is Not Applicable to the Legal System

Generally the terms used in the Incompleteness Theorem have common definitions that are quite different from their formal meaning, and many writers who lack a background in formal logic take the Incompleteness Theorem to have a much broader application. The meanings of the terms within the Incompleteness Theorem are incongruous to how they are understood within the legal system.

The Incompleteness Theorem, by its own definition, is plainly not applicable to the legal system. Any comparisons are therefore based on *interpretations* of the Theorem or upon some analogy, but not upon the Theorem itself. This is an important distinction because the Incompleteness Theorem is based upon a rigorous standard of proof. By invoking the Theorem, many attempt to clothe their opinion in the authority of that rigorous standard of logic, but in this instance their reliance can be plainly shown to be illogical.

In the next section I will examine Roger Penrose's broader interpretation of Gödel's Theorem, which claims that it is impossible to check computationally whether any formalized procedure has been correctly applied. Penrose is important to this thesis because his interpretation was referenced by Manderson as the basis for relating Gödel to the natural law.

"We see now through a glass in a dark manner; but then face to face. Now I know in part; but then I shall know even as I am known." -- I Corinthians 13:12

Chapter IIIa: Penrose, Platonism and Positivism

1. Introduction

In the previous section, I showed why Gödel's Theorem does not talk about the law. This section will make an argument for the wider application of Gödel by analogy to Penrose's theory of the Incompleteness Theorem, and also by reason of the Platonist philosophy behind the Theorem.

The first portion deals with Penrose's interpretation of Gödel's Theorem, which says that systems of rules can never be sufficient to show that they have been properly applied. Penrose is important because Manderson relied on this authority for the link between this Theorem and Fuller's ideas concerning the natural law.[1] Although Penrose's Argument captures the spirit of Gödel's philosophy, many believe that his case cannot be proven because it is too broadly stated.

Next I will discuss how the Incompleteness Theorem was envisioned by Gödel as a Platonist proof, and show that Gödel himself was a Platonist. Although there are many mathematical arguments that claim to refute the Platonist view, these arguments are logically flawed.

The Incompleteness Theorem supports the Platonist view because it shows that true statements about natural numbers cannot be proven within a formal system. While this dos not completely prove the Platonist theory, the inability of to prove the

---

[1] See Manderson, *supra* note 1, section I at 194, FN 15 and FN 19; citing Penrose, *Shadows*, *supra* note 3, section I, Shadows of the Mind.

truth of the natural number system based solely on symbols representing space-time

elements can be seen as evidence that these numbers exist in a higher, more

substantive reality. This view is analogous to Fuller's natural law arguments that a

mute system of rules cannot accomplish justice without some infusion of morals.

Similarly, Fuller and Gödel are seen to be most relevant to one another in their

condemnation of positivism, which is antithetical to Platonism.

2. Penrose's Conclusion G [2]

One major theory promoting the wider application of Gödel's Incompleteness

Theorem is an interpretation by Roger Penrose. Penrose's "Conclusion G" states that,

"Human mathematicians are not using a knowably sound algorithm in order to

ascertain mathematical truth."[3] Although it is a broader statement of Gödel's findings,

it is easy to see how this is related to Gödel. Gödel's Theorem, as you will

remember, had a statement that was true within the formal system, but could not be

proven by the system:

> "Gödel indisputably established … that no *formal system* of sound
> mathematical rules of proof can ever suffice, even in principle, to establish all
> the true propositions of ordinary arithmetic."[4]

Penrose goes on to make the case that Gödel's results are applicable to human

understanding generally:

> "[H]uman understanding and insight cannot be reduced to any set of
> computational rules. For what [Gödel] appears to have shown is that no such
> system of rules can ever be sufficient to prove even those propositions of

---

[2] Penrose's theory is described in this separate section because I do not want to confuse the reader into believing that Penrose is actually part of Gödel's Theorem, or that this theory is widely accepted.
[3] Penrose, *Shadows*, *supra* note 3, section I at 76.
[4] *Ibid* at 65.

arithmetic whose truth is accessible, in principle, to human intuition and insight – whence human intuition and insight cannot be reduced to any set of rules."[5]

Although this theorem is math-based, Penrose approaches the discussion from a broader perspective of artificial intelligence[6] (AI), reasoning that "[i]f thinking is just carrying out a computation of some kind, then… we ought to be able to see [our thinking processes] most clearly in our mathematical thinking."[7] A more generalized corollary of Penrose's conclusion is that "[a]ny set of rules whatever will be insufficient, if by a 'set of rules' we mean some system of formalized procedures for which it is possible to check entirely computationally, in any particular case, whether or not the rules have been correctly applied."[8] This last expression is more relevant to the topic of law because it would tend to prove, as Manderson states[9], that legal meaning could never entirely be reduced to a system of rules.[10]

---

[5] *Ibid* at 65.

[6] *Ibid* at 179-190; also see Penrose, Roger, "Beyond the Doubting of a Shadow: A Reply to Commentaries on Shadows of the Mind", (1996) Psyche Vol 2, No 23 at 8. [Penrose, "Beyond the Doubting"]

[7] Penrose, *Shadows*, *supra* note 3, section I at 64.

[8] *Ibid* at 72.

[9] Manderson, *supra* note 1, section I at 194-5.

[10] For those experienced in these matters it might seem that this corollary sounds familiar to Allen Turing's argument concerning a Turing Machine and they would not be disappointed to find that Penrose's proof is formulated along these lines.

      Allen Turing, (1912-1954), was a contemporary of Gödel's and a student of Alonzo Church. The "Turing Machine" was an imaginary machine that wrote computations on a strip of paper. The Turing "Halting Problem" stated that an algorithm could never be created that could decide, if given a description of any computer program, whether that program will eventually halt or whether it will run for ever.

      See Penrose, *Shadows*, *supra* note 3, section I at 65-77, e.g. "the Gödel-Turing conclusion G". Also see Franzén, *Gödel's Theorem*, *supra* note 12, section I, at 121, "Instead of invoking the second incompleteness theorem, he applies Turing's proof of the unsolvability of the halting problem." There is the obvious reply that Penrose's Conclusion should be attributed more to Turing than to Gödel, but that avoids the substance of the argument. Gödel's Theorem is sufficiently close to Turing so that there is some overlap; Gödel himself invokes Turing when discussing the implications of the Incompleteness Theorem. See Kurt Gödel, "Some Basic Theorems on the Foundations of

2.a. Franzén's Criticism on Conclusion G

There has been a mixed reaction to Penrose's Conclusion G. Franzén finds

Penrose's argument inconclusive, the major question revolving around whether it is

possible to program a computer with all human ability to prove arithmetical

theorems.[11] As has been shown, the Incompleteness Theorem demonstrates that a

formal system describing simple arithmetic, if it is consistent, cannot prove its own

consistency, and so lacks completeness because it lacks this theorem. The human

mathematician in this situation might *know* that the system, for example PA, is

consistent and so can say that *he can prove something that the formal system cannot*.

It is possible to add to a system S, a statement of its own consistency, "S is

consistent" (Con_S), but then that new system, S', would not be the same system as

system S, and would similarly be lacking a statement of *its* consistency.[12] Franzén

---

Mathematics and Their Implications (1951)" in Solomon Feferman *et al* eds, *Kurt Gödel: Collected Works Vol III* (New York: Oxford University Press, 1995) at 309. [Gödel, [1951]]

Penrose's proof, (Penrose, *Shadows*, *supra* note 3, section I at 73-5) is a fairly simple one that even lawyers can understand, and takes the following form: "Suppose…we have some computational procedure A which, when it terminates…provides us with a demonstration that a computation such as $C(n)$ actually does ever stop…. All the possible computations C can in fact be listed, say as C_0, C_1, $C_2, C_3, C_4 C_5$…, and we can refer to C_q as the qth computation. ….The procedure A can now be thought of as a particular computation that, when presented with the pair of numbers q, n, tries to ascertain that the computation $C_q(n)$ will never ultimately halt. Thus, when the computation A terminates, we shall have a demonstration that $C_q(n)$ does not halt….(H) If $A(q,n)$ stops, then $C_q(n)$ does not stop….[Penrose assures us that it is perfectly legitimate to replace q with n as was done in Cantor's theory.] With q equal to n, we now have: (I) If $A(n,n)$ stops then $C_n(n)$ does not stop….Let us suppose that [the listing of all computations performed on the natural number n] is in fact C_k, so we have: (J) $A(n,n) = C_k(n)$. Now examine the particular value $n = k$… [again from Cantor] We have, from (J), (K) $A(k,k) = C_k(k)$ and from (I), with $n = k$: (L) If $A(k,k)$ stops, then $C_k(k)$ does not stop. Substituting (K) in (L), we find: (M) If $C_k(k)$ stops, then $C_k(k)$ does not stop."[!!]

[11] Franzén, *Gödel's Theorem*, *supra* note 15, section III at 122.

[12] See Berto, *supra* note 1, section III at 109. See also Townsend, Mike, "Implications Of Foundational Crises In Mathematics: A Case Study In Interdisciplinary Legal Research" (1996) 71 Wash L Rev 51,

suggests the hypothetical situation of a robot that presses a button, which extends the

robot's inventory of axioms by the statement that its previous inventory was correct.[13]

But as we formulate more involved principles for extending a correct theory to a

stronger theory, we are confronted with questions: about what is mathematically

acceptable; about which different mathematicians will give different answers; and

perhaps, questions where there is no definite answer.[14] If the robot were programmed

to perfectly emulate the human ability to extend a correct theory to a stronger theory,

and give a similar range of answers, we would have "no grounds for the claim that we

as human mathematicians can prove anything not provable by the robot."[15]

Franzén claims it is a mistaken conclusion to say that Gödel's Incompleteness

Theorem shows that it is impossible to understand one's own mind.[16] Saying that a

formal system does not "understand itself" *understates* the difficulty for a system to

prove its own consistency.[17] And though it may be that a system cannot postulate its

own consistency, this can be proven by another system. Franzén analogizes this

---

at 111-112: "It is the case that the sentence is provable in the newly created system. However, this new system also is subject to Gödel's First Theorem so that there now is a sentence undecidable with respect to this new system!"

[13] Franzén, *Gödel's Theorem*, *supra* note 15, section III at 123.

[14] *Ibid*. Also see Townsend, *supra* note 12 at 112: "The reader may then wonder if one can't iterate some type of addition process to avoid the syntactic incompleteness while at the same time keeping consistency…. This iterated addition, however comes at a price. As the statement of Gödel's First Theorem indicates, to keep consistency one must have thrown in so much that the set of non-logical axioms is no longer recursive – roughly speaking, one must have thrown in so much *that one can no longer tell by algorithmic means whether an arbitrary formula is a non-logical axiom*!" [Italics added for emphasis!]

[15] Franzén, *Gödel's Theorem*, *supra* note 15, section III at 123.

[16] *Ibid* at 124.

[17] *Ibid* at 125. [Italics in original.]

situation to the inability for a human to truly say that he never talks about himself: the very utterance of the statement "I never talk about myself" falsifies it.[18]

A more appropriate comparison, according to Franzén, is to show how PA can prove the consistency of every finite subset of its own axioms.[19] This ability of a formal system to shrewdly analyze these individual parts of itself, if applicable to the human mind in the spirit of metaphorical applications of the Incompleteness Theorem, would mean that we can expect to understand ourselves perfectly.[20]

2.b. Conclusion G by Gödel and Berto

Berto finds that Penrose's Conclusion G is very close to what Gödel himself claimed in a speech Gödel made in 1951.[21] Gödel said that the [2nd] Incompleteness Theorem means that it would be impossible for someone to set up a certain well-defined system of axioms and rules and consistently claim that they perceive (with mathematical certitude) all the rules to be correct, *and* that they contain all of mathematics.[22]

Looking once again at the system S, a person can see objectively that the consistency of the system, Con_S, is true.[23] But the Incompleteness Theorem does not allow the system *to prove its own consistency*, so the system, in this subjective limitation cannot and will never be able to capture the totality of arithmetical truths.[24] Gödel surmised that no well-defined system of correct axioms could ever contain all

---

[18] *Ibid* at 125.
[19] *Ibid* at 125.
[20] *Ibid* at 125-6.
[21] Berto, *supra* note 1, section III at 185. Gödel, [1951] *supra* note 10, at 304.
[22] Gödel, [1951], *supra* note 10 at 309.
[23] Berto, *supra* note 1, section III at 186.
[24] *Ibid* at 187.

true mathematical propositions, but that it would be possible to create such a system of all *demonstrable* mathematical propositions.[25]

Berto states that Penrose's Conclusion G, i.e. that human mathematicians are not using a knowably sound algorithm in order to ascertain mathematical truth, is correct if it is understood in this sense.[26] Understood in this sense, Conclusion G does not state that our minds are algorithmic, "but that a formal system embodying all of our mathematical knowledge could not be recognized as correct by us."[27] Reasoning to the converse, if we recognize a formal system S as a correct formalization containing a part of our mathematics, we know that it cannot represent the *whole* of mathematics because we could produce a sound extension of that system by adding to it a statement of its consistency, Con_S.[28]

2.c. Relating Penrose to Law

Penrose's assertions concerning mathematics do not seem unreasonable, given that they closely resemble one of the possible conclusions asserted by Gödel.   It remains another matter, however, to interpret Penrose's argument, as being applicable to the law. To make the leap that Conclusion G applies to the law, it would seem that either: 1) Any theory of law necessarily involves the discussion of natural numbers; or 2) The inability to fully capture the concept of natural numbers within a formal

---

[25] Gödel, [1951] *supra* note 10 at 309: "[A]s to subjective mathematics, it is not precluded that there should exist a finite rule producing all its evident axioms. However if such a rule exists, we with our human understanding could certainly never know it to be such, that is, we could never know with mathematical certainty that all propositions it produces are correct…"

[26] Berto, *supra* note 1, section III at 187.

[27] *Ibid*.

[28] *Ibid*.

axiomatic system is indicative of some human process of thought or perception that is not capable of being encoded within such a system.[29]

If we view Penrose's Argument merely as an analogy, it is easy to relate these similar concepts, and to see how they resonate with Fuller's natural law in the way Manderson described: that a legal system cannot consist merely of laws because it would never be possible to use only positive law to show that "the law" is being correctly applied; therefore the law is dependent upon norms external to the system of law. But if Penrose's claim as a *proof* is overstated as to other, non-Gödelian systems, then it is overstated as to law as well.

I will not attempt to make any sort of argument relating legal matters directly to natural numbers. I shall leave it to the reader to decide whether Gödel Incompleteness has been *proven* to be applicable to systems outside of the narrow confines of its own definition. I have demonstrated that Penrose's interpretation of Gödel is similar to what Gödel proposed.

3. Philosophy Behind Gödel

At this point it is important to discuss the philosophy behind Gödel's Theorem, and to discover the implications of applying Incompleteness to the law. I

---

[29] See Townsend, *supra* note 12 at 134: "[A] great controversy exists in the mathematical community about whether the limitations that Gödel's Theorems places on certain types of formal systems apply to human reasoning as well." See also Howard DeLong, *A Profile of Mathematical Logic* (Mineola, New York: Dover Publications, 1971) at 273: [The thesis that Gödel's Theorem proves that minds cannot be explained as machines] has generated more discussion than any other… on the philosophical import of Gödel's theorem." Also recall the statement made by Augustine, *Free Choice, supra* note 1, section II at Bk II ch 16, section 171: "Whatever changeable thing you may look at, you could not grasp it at all…unless it had some form composed of numbers…"

will also give several examples of legal theorists who attempt to apply Gödel, but who wind up making conclusions that are contrary to Gödel's philosophy.

3.a. Positivism, Gödel and Platonism

Gödel's philosophy essentially contradicts logical positivism. Logical positivism is very similar to what is found in legal positivism, and defined as "the doctrine that all true knowledge is derived from observable phenomena, rather than speculation or reasoning."[30] The philosophy of positivism attempted to demarcate a class of "meaningful propositions in order to exclude those without cognitive content."[31] Positivists felt that ethics, metaphysics, theology and aesthetics were senseless endeavors, and propositions concerning these topics were indistinguishable from nonsense jumbles.[32]

Logical positivism was a thriving philosophy in Vienna during the time Gödel studied at the University there.[33] The various coffeehouses of Vienna were devoted to their own particular intellectual theme, and Gödel had been invited to attend weekly discussions of the "Vienna Circle", whose theme was logical positivism. The Vienna Circle initiates believed that metaphysical thinking was nothing more than confusion based on an inadequate understanding of language.[34]

> "The circle was devoted to the [positivist theme] that physical science, whose ultimate basis is sensory experience, exhausts what can be known, leaving philosophy the task primarily of policing the ever-present tendency of thought

---

[30] Black's Law, 7th Ed.

[31] AC Grayling, *An Introduction to Philosophical Logic*, (Sussex: Harvester Press, 1982) at 48.

[32] *Ibid*. "The principle [the positivits] adopted for use in discriminating between cognitively senseful and senseless propositions was the…'verifiability principle', which states…that the meaning of a statement is the method of its verification…"

[33] Yourgrau, *supra* note 5, section I at 28.

[34] *Ibid*.

to pretend to more knowledge than can be delivered by science."[35]

The positivists saw Hilbert's effort at formalization as an instrument "to assist in their

policing".[36] To the positivists, mathematics was not a realm of concepts and objects,

but "rather a system of techniques for the manipulation of mathematical signs.[37]"

In contrast to the positivists who say that knowledge must come from

observation, Platonism is "the view that some at least of the objects of thought are

apprehended by intellect independently of sense perception and sense data…"[38] In

Plato's view, abstract entities such as numbers, really exist in their perfect form

within some other realm.[39] In stark contrast to positivistic thought, Platonism holds

that Universal ideas alone have reality.[40]

Although he is sometimes wrongly accused of being a positivist, Gödel was a

Platonist.[41] In his 1951 lecture to the American Mathematical Society, Gödel said,

---

[35] *Ibid* at 29.

[36] *Ibid* at 29-30.

[37] *Ibid* at 32.

[38] Peter Coffey, *Epistemology; or the Theory of Knowledge* (London: Longmans, Green and Co, 1917) at 259.

[39] Grayling, *supra* note 31 at 26. See Plato, *Republic, Plato in Twelve Volumes*, Vols. 5 & 6 translated by Paul Shorey (Cambridge, MA: Harvard University Press, 1969) at 597c-d: "Now God, whether because he so willed or because some compulsion was laid upon him not to make more than one couch in nature, so wrought and created one only, the couch which really and in itself is. But two or more such were never created by God and never will come into being."
"How so?" he said.
"Because," said I, "if he should make only two, there would again appear one of which they both would possess the form or idea, and that would be the couch that really is in and of itself, and not the other two."
"Right," he said.
"God, then, I take it, knowing this and wishing to be the real author of the couch that has real being and not of some particular couch, nor yet a particular cabinet-maker, produced it in nature unique."
"So it seems."
"Shall we, then, call him its true and natural begetter, or something of the kind?"
"That would certainly be right," he said, "since it is by and in nature that he has made this and all other things."

[40] Heinz Guradze, "The Epistemological Background Of Natural Law" (1951-1952) 27 Notre Dame L Rev 360 at 363.

[41] Townsend, *supra* note 12 at 141-142.

"[I]t is correct that a mathematical proposition says nothing about the physical or psychical reality existing in space and time, because it is true already owing to the meaning of the terms occurring in it, irresepectively of the world of real things. What is wrong, however, is that the meaning of terms (*that is, the concepts they denote*) is asserted to be something man-made and consisting merely in semantical conventions. The truth, *I believe*, is that *these concepts form an objective reality of their own*, *which we cannot create or change*, *but only perceive and describe*.

…

"[M]athematics describes *a non-sensual reality, which exists independently* both of the acts and [of] the dispositions of the human mind and is only perceived, and probably perceived very incompletely, by the human mind."[42]

Another interesting feature of Gödel's 1951 lecture is his sketch of *a proof that the nominalistic view of mathematics is false*.[43] Nominalism, as Gödel describes it, is the "view that there exists no such thing as a mathematical fact, that the truth of propositions which we believe express mathematical facts only means that an idle running of language occurs in these propositions…."[44] Nominalism takes in the schools of empiricism and positivism, all of which deny the correlation between those universal logical terms (of language) and any thought-objects apprehended as "one-common-to-many".[45] Gödel says that his proof stops short of completely evincing the Platonic view, since he only offers a limited refutation of psychologism and the other

---

[42] Gödel, [1951], *supra* note 10, at 320, 323. [Italicized for emphasis.]

[43] See *ibid* at 322. "The most I could assert would be to have disproved the nominalistic view…" Briefly, Gödel proposes: that if mathematics were the creation of the human mind, then ignorance of these objects is "only through a lack of clear realization as to what we have created"; that if mathematicians are restricted by theorems, which would not be the case if theorems were their own creation; that integers and sets are very different creations, but that these must be created first in order to understand the properties of the third creation: mathematics. See *ibid* at 314-315.

[44] *Ibid* at 319.

[45] Coffey, *supra* note 38 at 312.

possibility, 'Aristotilean realism'.[46] But that is enough, as it shows that Gödel not only thought that mathematical *nominalism is false*, but *provably* so.

Perhaps an even more pointed proof of Gödel's preference for Platonism over positivism is found in a paper Gödel wrote in 1972, where he makes the claim that "abstract concepts are needed for the proof of consistency of number theory":[47] Platonism holds that numbers are forms in another realm, so it would be consistent with that view that those forms cannot be proven through concrete symbols.[48]

The Platonic emphasis comes through clearly when we re-examine Gödel's Theorem with this perspective. Think of when a person makes an argument that they consider to be very obvious, which is to say, the *most concrete*: 'It's as simple as 2 + 2 = 4.' But when Russell and Whitehead attempted to prove the number theory that supports this very basic argument using only concrete symbols, Gödel demonstrated

---

[46] Gödel, [1951], *supra* note 10 at 319-320. See Dale Jacquette, "Psychologism the Philosophical Shibboleth" (1997) 30 Philosophy & Rhetoric 312, at 312 – 313: "[P]sychologism includes any attempt to ground philosophical explanation in psychological phenomena. Psychologism is a family of proposals for invoking different aspects of psychological occurrences in different ways to develop different styles of philosophical theory." See James Franklin, "Aristotelian Realism", in *Philosophy Of Mathematics*, Andrew Irvine Ed (Oxford: Elsivier, 2008) at 101: "Aristotelian, or non-Platonist, realism holds that mathematics is a science of the real world, just as much as biology or sociology are."

[47] K Gödel,1972, "On an Extension of Finitary Mathematics Which Has Not Yet Been Used" in: K. Gödel Collected Works, vol. II, ed by S Feferman *et al*, (New York: Oxford University Press, 1990) at 271. [Gödel, (1972)]: "By abstract concepts, in this context, are meant concepts which are essentially of the second or higher level, i.e., *which do not have as their content properties or relations of concrete objects* (such as combinations of symbols), *but rather of thought structures or thought contents* (e.g., proofs, meaningful propositions, and so on), where in the proofs of propositions about these mental objects insights are needed which *are not derived from a reflection upon the combinatorial (space-time) properties of the symbols* representing them, but rather from *a reflection upon the meanings involved*". *Ibid* at 272-3. [Citations omitted; Italicized for emphasis.] Also see Roman Murawski, "Truth Vs. Provability – Philosophical And Historical Remarks" (2002) 10 Logic and Logical Philosophy 93 at 110-111.

[48] Platonic or Extreme Realism abstract thought-objects are "as such necessarily, universally, eternally, immutably, and indivisibly as intellect conceives them… In this Platonic theory… the world of sense experience would be not only unexplained, inexplicable, unintelligible, unknowable, but would be even illusory and unreal." Coffey, *supra* note 38, at 244 Note that 'realism' in philosophy is different from the realist school of thought in the philosophy of law.

that it was possible to make a statement that was true within the Russell/Whitehead system, but which that same system could not prove.

Note that Gödel did not question whether $4 = 2 + 2$, but rather pointed out that our method of proof is not based solely upon symbols representing space-time properties. We 'know' that natural numbers are complete and consistent, but we cannot make a complete and consistent set of rules to *prove* them. Basic number theory, the paragon of concrete arguments, relies upon something *intangible*. What better example can be made to demonstrate Plato's view of reality as being mere shadows upon a wall, and which points to a higher, more substantive reality?

And Gödel is not alone in his views. Penrose agrees that the Incompleteness Theorem was a refutation of the nominalist view: "What Gödel showed was how to transcend any…system of [formalized] rules."[49] Penrose, who describes himself as a weak Platonist[50] says "the very force of Gödel's logic was sufficient to turn me from the computational standpoint with regard not only to human mentality, but also to the very workings of the physical universe."[51] The "close relationship between the notion of a formal system and Turing's notion of effective computability" was sufficient to prove to Penrose that "human thought and human understanding must be something

---

[49] Penrose, "Beyond the Doubting", *supra* note 6 at 9.

[50] *Ibid* at 20: "[A]t least my own form of Platonism does not demand that I need necessarily go to such extremes."

[51] *Ibid* at 9. Note: "Computationalism is the view that intelligent behavior is causally explained by computations performed by the agent's cognitive system." Gualtiero Piccinini, "Computationalism in the Philosophy of Mind" (2009) 4(3) Philosophy Compass at 215.

beyond computation."[52] And this conviction was due to the scientific method rather than any personal beliefs on the part of Penrose.[53]

And Penrose is not alone. "Platonism is alive and well in mathematics…"[54] Bertrand Russell was a Platonist.[55] Among mathematicians, Platonism is more popular today than it was in Gödel's time, in large part because of Gödel.[56]

3.b. Misuse of Gödel to Question Foundationalist Thinking

Given that Gödel's Theorem espouses the Platonist philosophy, it stands to reason that any wider application of Gödel would take a similarly Platonist view. And yet we see scholars using Gödel's Theorem to make anti-foundationalist attacks on mathematics:

> "It is claimed that the impossibility of proving the consistency of a consistent formal system within the system itself entails some unavoidable uncertainty for the working mathematician: we can never be sure that the formal systems we work with are consistent."[57]

Not only is this an incorrect summary of the theorem, but wrongly states that we should be skeptical of something that has already been proven; i.e. those formal systems in question have actually been proven consistent by the most rigorous

[52] Penrose, "Beyond the Doubting", *supra* note 6 at 9.

[53] *Ibid*: "It was not a question of looking for support for a previously held "mystical" standpoint. (You could not have asked for a more rationalistic atheistic anti-mystic than myself at that time!)"

[54] Townsend, *supra* note 12 at 145.

[55] See Russell, "Common Usage" *supra* note 87, section II at 305: "The word itself is no part of the sensible world; if it is anything, it is an eternal super-sensible entity in a Platonic heaven." See also Russell, "Vagueness", *supra* note 68, section II at 89: "This is one reason why logic takes us nearer to heaven than most other studies. On this point 1 agree with Plato. But those who dislike logic will, I fear, find my heaven disappointing."

[56] See George Boolos, "Introductory note to 1951" in Solomon Feferman *et al* eds, *Kurt Gödel, Collected Works, Vol III*, (New York: Oxford University Press, 1995), at 303-304; Penrose, "Beyond the Doubting", *supra* note 6 at 20; Townsend, *supra* note 12 at 145.

[57] Berto, citing misconceptions of Gödel's Theorem, *supra* note 1, section III at 164.

methods. This attempt to undercut the foundation of math ultimately proves itself to be overly skeptical.

3.c. Mathematical Faith

Two main misconceptions about the Gödel result on consistency are: 1) "that consistency of some or all formal systems…is *doubtful*"; and 2) "that the consistency of these systems cannot be *proved* in the same sense that other mathematical statements can be proved."[58]

But as concerns the formal systems PA or ZFC, "there is no doubt whatsoever about the consistency of any of the formal math systems that we use in mathematics…. [W]e have absolute certain knowledge of the *truth* of the axioms of these systems, and therewith their consistency".[59] And this is not in conflict with Gödel. As has been shown, the property of soundness, i.e. proving that all the theorems of a given system are true, is a stronger property than completeness.[60] And though the Incompleteness Theorem says that a formal system may not prove *its own* consistency, we can show that such a system is consistent if all of its theorems can be proven true *in another system*.[61] So while it is true that PA cannot prove its own consistency, the axioms of PA are proven true in another formal system, ZFC.[62] Moreover, in ordinary math contexts, no one questions the consistency of ZFC, and proving a theorem in ZFC is accepted as having proved that the theorem is true.[63]

---

[58] Franzén, *Gödel's Theorem*, *supra* note 15, section III at 104.
[59] *Ibid* at 105.
[60] Berto, *supra* note 1, section III at 166.
[61] *Ibid*.
[62] Franzén, *Gödel's Theorem*, *supra* note 15, section III at 109.
[63] *Ibid* at 111.

The inability of PA to prove its own consistency does not constitute rational grounds for doubting its consistency.[64] To believe in the consistency of a formal system S on the basis of its proving its consistency, Con_s, is like believing that someone is not crazy on the basis of her claiming that she isn't…"[65] "Gödel's theorem tells us nothing about what is or is not doubtful in mathematics. To speak of the consistency of arithmetic as something that cannot be proved makes sense only given a skeptical attitude towards ordinary mathematics in general."[66]

Francisco Berto speaks of the formal system ZFC as a background theory, and states that essentially all the proofs of ordinary mathematics can be formalized within it.[67] Conversely, if a problem is proven not to be solvable in ZFC, then "mathematicians will have a strong tendency to quit taking it as a mathematical problem."[68] "[M]athematicians are perfectly right in relying on their background theory – for how could they carry out their work otherwise?…[T]his mathematical reliance might be nothing but faith, given a suitably restrictive definition of "faith"."[69]

Berto says that this overly skeptical view goes beyond Gödel, and becomes a trap: first we are asked to prove the consistency of a formal system, and then the skeptic raises doubts as to the principles of demonstration.[70]

---

[64] Berto, *supra* note 1, section III at 165.
[65] *Ibid*.
[66] Franzén, *Gödel's Theorem*, *supra* note 15, section III at 112.
[67] Berto, *supra* note 1, section III at 171.
[68] *Ibid*.
[69] *Ibid* at 172.
[70] *Ibid* at 172-173. See Aristotle's answer to this endless skepticism: "[W]e have just assumed that it is impossible at once to be and not to be… Some, indeed, demand to have the law proved, but this is because they lack education; for it shows lack of education not to know of what we should require proof, and of what we should not. For it is quite impossible that everything should have a proof; the

4. Major Points Concerning Applications of Gödel to Fuller and the Law

This capricious attitude carries over into much of the legal criticism concerning Gödel's Theorem, but there are also many apt comparisons. Gödel's Theorem is perhaps most closely analogized to the Is/Ought debate. Gödelian concepts also resonate strongly within the framework of Fuller's theories of natural law, where he finds fault with the philosophy of positivism.

I have made it very clear that Gödel's Theorem concerns arithmetic, and therefore cannot be said to "prove" anything about law.[71] Gödel created the scenario where a formal statement, 'G', is true, but not provable within the system.[72] Interpreting this as analogy lends a wide variety of verbal expressions: e.g. "[T]ruth is not reducible to (formal or mechanical) proof. Syntax cannot supplant semantics."[73]

While Penrose and others might push for the wider application of Gödel, I need not rely on these associated theories, but rather rest on the strength of the analogy as Manderson has presented.[74] It certainly would be more satisfying to our modernist empiricist penchant to have a mathematical 'proof' of a theory, but it is not necessary. Gödel and Fuller shared similar philosophies, and their similarity does not

---

process would go on to infinity, so that even so there would be no proof." (Translator's Note: Every proof is based upon some hypothesis, to prove which another hypothesis must be assumed, and so on ad infinitum.) Aristotle, *Metaphysics*, *Aristotle in 23 Volumes*, Vol 17, 18, trans Hugh Tredennick, (Cambridge, MA: Harvard University Press, 1933, 1989) at 1006a. [Aristotle, *Metaphysics*]

[71] See Townsend, *supra* note 12 at 134: "[A] great controversy exists in the mathematical community about whether the limitations that Gödel's Theorems places on certain types of formal systems apply to human reasoning as well."

[72] Berto, *supra* note 1, section III at 50. Remember that "Gödel sentence" – "G_S" says, about itself, that it is not "provable": "G_S" says "G_S is not provable in S." See Gödel, "Formally Undecidable Propositions", *supra* note 28, section III at 89: "We therefore have before us a proposition that says about itself that it is not provable [in PM]…."

[73] Yourgrau, supra note 5, section I at 57.

[74] Manderson, *supra* note 1, section I at 194.

depend on the Incompleteness theorem to prove anything about law. Both Gödel and Fuller refuted positivism in their respective fields, which casts doubt on its validity as a philosophy.

4.a. Gödel as Analogy for Fuller

If we view Fuller from the perspective of Hart-Fuller debate, we find that he is very similar to Gödel in that he shows the need for extra-legal means of decision-making.[75] In the Hart-Fuller debate, Fuller represented the natural law view, and stated that the meaning of law is dependent upon external norms for its own interpretation.[76] Before we determine what a law is, we need to know its purpose.[77] We need to know what the rule "ought to be" before we can state what the rule "is".

The sense of the purpose of law can never be completely described by the words of positive law.[78] If we limit ourselves only to positive law, the legal system lacks recourse to this understanding of purpose, and this renders a situation much like the undecidable true sentence in Gödel's Theorem: Truth is not reducible to formal or mechanical proof.[79]

So the law is always dependent upon an external morality that is necessary for social ordering, and this morality is a necessary precondition for the realization of

---

[75] Fuller, "Positivism and Fidelity to Law" *supra* note 20 section II at 645. See D'Amato, "Pragmatic Indeterminacy", *supra* note 70, section III at 26: "Fuller invented a Godelian application of Hart's exemplary statute, one that was undecidable even though by hypothesis it fell within the core."
[76] Schauer, "Critical Guide", *supra* note 44, section II at 1109.
[77] Fuller, "Positivism and Fidelity to Law" *supra* note 20, section II at 665-6.
[78] Fuller, *Morality of Law*, *supra* note 3, section I at 150.
[79] This idea is similar to Fuller's views on the law: Fuller felt that society could not have respect for law unless society had a respect for justice. Fuller, "Positivism and Fidelity to Law" *supra* note 20, section II at 657. Although this is insightful to the matters discussed here, I do not mean to show that Gödel meant that his Theorem *proved* this. The analogy here is my own interpretation of Manderson's comments.

justice.[80] Thus, we can understand Manderson's analogy of "justice" as a "supplement, something both utterly apart from and yet embodied in the operation of law."[81]

Manderson's interpretation of the Incompleteness Theorem also conforms to a Gödelian Platonic interpretation: Manderson does not appeal to merely observable phenomena, but rather "justice", which is "felt to be axiomatic", but which escapes empirical proof: "something both utterly apart from, and yet embodied in the operation of the law."[82]

Manderson's insight into Gödel is outdone by his careful wording concerning Fuller:

> "The most rigorous and analytic theory or system requires a supplement which is both necessary to its functioning and yet cannot be admitted by its structure.
> This supplement is an awareness of the "purposes" which motivate the system, an argument *most closely associated with* Lon Fuller."[83]

Although this argument is "associated with" Fuller, it does not accurately represent Fuller's natural law theory. Fuller's legal philosophy was focused on the internal morality of law, but did not describe the form of the external morality.[84] In this sense, the 'close association' with Fuller is perhaps due mostly to the Hart-Fuller debate, where Fuller strongly defended the need for "substantive aims of legal rules" of law with which his natural law theory was not "concerned".[85]

---

[80] Fuller, *Morality of Law*, *supra* note 3, section I at 5-6, 168.
[81] Manderson, *supra* note 1, section I at 195.
[82] *Ibid*.
[83] *Ibid* at 192, 194. [Italics added for emphasis.]
[84] Fuller, *Morality of Law, supra* note 3, section I at 96.
[85] *Ibid* at 97.

4.b. Philosophy Behind Gödel and Fuller

Examining the philosophy of Fuller reveals another, perhaps even more apt comparison of Fuller to Gödel. Gödel's philosophy was Platonic, and his theory refuted the positivist view. Gödel said that nominalism was provably false. It seems logical that a meaningful analogy of the Incompleteness Theorem to law should take a similar perspective; i.e. that positivism and nominalism were incorrect and/or harmful philosophies. This is an accurate summary of Fuller's legal theory because he is consistently antagonistic towards positivism. Fuller said that positivists present a false view of logic and policy, imagining that they can "trace the patterns of judicial behavior just as they are", stating the "pure, raw, unembellished fact of law".[86] In this process, positivists obscured the underlying policy in settled law.[87] Fuller prophesied that positivism would ultimately destroy itself because it demands the impossible task of creating a "rigidly controlled and "scientifically" accurate statement of law."[88]

Lon Fuller also criticized legal realists for their nominalist beliefs, which Fuller described as a fear of conceptualism, and an inability to reconcile the polarity of law and society.[89] Legal realists demonstrate a "skepticism toward rules" which is expressed by two related fears: 1) Reality is too "complex…to be kept in a straight-

---

[86] Lon Fuller, "Williston On Contracts" (1939-1940) 18 NC L Rev 1 at 13-14.
[87] *Ibid* at 10.
[88] *Ibid* at 14.
[89] Fuller, "Legal Realism", *supra* note, 6, section II at 444. Fuller said that legal realists were essentially engaging in nominalism, which he defined as the "belief that universals exist only in the mind of the individual": "Nominalism starts with the assumption that in the mind of the individual universals have no place, that they are only a sort of social convention making language possible."

jacket of rules"; and 2) Rules are essentially impotent because they are made up of shadowy *concepts* that are essentially the "figments of our own minds".[90]

Because Incompleteness is limited to talking about formal systems of natural numbers, and because the Hart/Fuller debate doesn't offer an accurate representation of Fuller's natural law, it appears that the most relevant aspect of Gödel's Theorem in this analogy is the philosophy behind it: Gödel meant his Theorem to be a refutation of positivism and nominalism,[91] which were also the bugbears of Fuller's philosophy.[92] Like Fuller, Gödel felt that positivism represented philosophy poorly.[93]

4.c. Gödel and Vagueness in Formal Systems

Another characteristic that is common to both the legal system and the formal system described by Gödel is that of vagueness. Vagueness is common to all natural language systems, and it is unavoidable.[94] Formal systems were created with the intention of removing vagueness from the discussions of mathematics.[95] This very basic understanding should be enough to refute the idea that Gödel's Incompleteness Theorem has any direct impact on the law: that theorem talks about formal systems, and the law is not a formal system.[96] But Gödel's Theorem shows that there is a type

---

[90] *Ibid* at 443.

[91] See Gödel, [1951], *supra* note 10 at 320, 323.

[92] See Fuller, "Legal Realism", *supra* note, 6, section II at 444.

[93] Hao Wang, *A Logical Journey: From Gödel to Philosophy* (Cambridge, MA: MIT Press, 1996) at 308.

[94] Russell, "Vagueness", *supra* note 68, section II at 87. [Italics added for emphasis.]

[95] Berto, *supra* note 1, section III at 15-16.

[96] Franzén, *Gödel's Theorem*, *supra* note 15, section III at 2, 16. See D'Amato, "Pragmatic Indeterminacy", *supra* note 70, section III at 176, FN 92: "Although Professor Kress is technically correct in saying that [Gödel's Theorems were] designed to apply to formal systems, my position is that either they apply a fortiori to non-formal systems such as law, or if they don't apply because law is a non-formal system, then for that reason the Indeterminacy thesis is proven."

of vagueness that creeps into formal systems that talk about natural numbers.[97] Every

formal system of that type is susceptible to a Gödel statement about which it cannot

make a decision, rendering the system incomplete and incapable of evaluating its own

consistency.[98]

I believe that formal systems cannot fully explain or "capture" the essence of

natural numbers for a reason that is similar to what makes a legal system incomplete:

there is a source of decision-making that is eternally located outside the system. Other

formal systems, like those of *rational* numbers and Euclidean geometry, can be

complete and consistent; while those involving *natural* numbers are incomplete and

cannot prove their own consistency.[99] This gets at the very nature and purpose of

counting as opposed to that of *measuring*; i.e. numerosity as it differs from ratio:

> "For "measure" refers to the substance of the thing limited by *its* principles,
> *"number" refers to the species*…whereby it is distinguished; For a thing…is
> distinct by its form…"[100]

So in order to count things, it is necessary *to discern their form*, and to make a

determination as to which species they are a part. Anytime I say: "There are X

number of Ys", I am making a *judgment* as to what a Y is; I am defining a set. For

example, let's imagine there are three ladies in a room. One of them is pregnant.

 How many people are in the room? The trouble in answering this question stems

from the vagueness of the word "people".

---

[97] Berto, *supra* note 1, section III at 50. See Gödel, "Formal Undecidable Propositions", *supra* note 28, section III at 89: "We therefore have before us a proposition that says about itself that it is not provable [in PM]…."
[98] Franzén, *Gödel's Theorem*, *supra* note 15, section III at 34.
[99] *Ibid* at 25, 127.
[100] Aquinas, St Thomas, *Summa Theologica*, trans Fathers of the English Dominican Province, (New York: Benzinger Bros, 1921) at I, Q 45 A 7.

In order to have natural numbers, I need rules or principles to create boundaries to the set that I am counting.[101] For this reason it is understandable that Gödelian incompleteness is limited to formal systems involving natural numbers.

5. Conclusion

I started out by discussing Penrose's Argument that systems of rules cannot govern themselves. While Penrose's theory didn't necessarily prove anything about the law, it showed how Fuller's natural law claim, that the legal system is dependent upon external norms, is analogous to Gödel.

I also showed that Gödel's Theorem is essentially Platonist since it proves that number theory cannot be proven by concrete symbols and functions. In a fit of great irony, I left aside the proof that Gödel concretely proves anything about the law, and instead began to build a more abstract argument showing that the Platonist philosophy behind the Incompleteness Theorem is similar to the one behind Fuller's natural law.

I introduced the different philosophies of Platonism and positivism, and showed how they relate both to law and mathematics. I also demonstrated that the Incompleteness Theorem is not an expression of positivism, but rather points to human reason being reliant upon abstract concepts that escape concrete expression. In this way, the Gödel Theorem disproves nominalism. Even if the Gödel Theorem may not be strictly applicable to the law, it is this Platonic interpretation that makes a more appropriate analogy.

---

[101] And as is common with any system of rules or principles, "this principle will be found to fail the more, according as we descend further into detail…" *Ibid* at I, Q 94 A 4.

In the next section I will discuss the shortcomings of Fuller's theory of natural law. If Fuller's statements concerning the external morality of law are to be analogous with the philosophy expressed by Gödel's Theorem, it is vital that the natural law be objective and consistent. I will show how the classical understanding of natural law is superior to Fuller's because it is more consistent and therefore more useful in resolving the problem of legal vagueness.

"Who shew the work of the law written in their hearts, their conscience bearing witness to them, and their thoughts between themselves accusing, or also defending one another…"   -- Romans 2:15

Chapter IV: Natural Law & Legal Consistency

1. Introduction

This thesis set out to inquire whether Gödel's Incompleteness Theorem is an analogous case of Lon Fuller's statements concerning the natural law. In order to answer this completely, it is necessary to understand what is meant by "natural law". I have already shown that Gödel's Theorem rings true with arguments 'associated with' Fuller, most typically in those arguments presented in the Hart/Fuller debate. But when Fuller's natural law system is closely examined, he presents a theory of law that is inconsistent with the goals of the natural law. Generally, this section will show that Fuller's natural law theory contradicts itself and is, in many respects, positivistic. Fuller's positivist view is in obvious contrast to Gödel's determined efforts to prove the Platonic/realist view of mathematical concepts.[1] I will show that he 'classical natural law theory', as it is explained by Aquinas, is more closely analogous to the philosophy of Gödel.[2]

My working premise is that the analogy between Gödel and Fuller rings most true in their underlying philosophies. Consistent with this premise, I submit that Gödel's concept of natural numbers should be of a similar nature to the conceptualization of the natural law. With this in mind, I can use Gödel's relevant beliefs concerning number theory to evaluate Fuller's theory of natural law.

---

[1] Gödel, [1951] *supra* note 10, section IIIa at 314.
[2] "Among the most influential contributions to natural law jurisprudence is Aquinas Treatise on Law [in] Summa Theologiea…" Farago, *supra* note 98 section III at 195, FN1. Following Farago's example, "I will most commonly refer to a model of natural law drawn from this source."

Gödel said that proving the consistency of classical number theory was dependent upon the use of "abstract" concepts, meaning that they did not refer to sense objects.[3] But although Fuller's purely procedural natural law scheme points out the need for an external morality of law, he makes no effort to articulate any means for its discernment.[4] Fuller even goes so far as to question the legitimacy of a "higher law".[5] This is inconsistent with Gödel's concept of *proving* number theory, and this is also a mistaken view of the natural law. Classical natural law theory, consistent with Gödel, says that the natural law is necessary to provide consistency to the positive law.

Along similar lines, Gödel said that the concepts referred to by mathematical terms formed "an objective reality of their own, which we cannot create or change, but only perceive and describe."[6] Fuller's view of natural law ignores the classical law view that the goals of law are fixed antecedently, and instead takes an instrumentalist view, creating the purposes of natural law contingently. This instrumentalist perspective is not in keeping with the proper purpose of natural law, and also contradicts Gödel's view.

Lastly, Gödel said that the implications of the psychologistic view, (i.e. that mathematics are governed by our own thoughts and convictions as they occur in us), would render all mathematical knowledge meaningless.[7] But Fuller's natural law is shown to be relativistic. If natural law is created by man, according to his own thoughts and convictions, then the natural law meaningless as a standard of objective reckoning.

In contrast to Fuller's natural law theory, the classical view of natural law is the most ideal external source of morality, and this is necessary to the proper interpretation of

---

[3] Gödel, [1951] *supra* note 10, section IIIa at 318.
[4] Fuller, *Morality of Law*, *supra* note 3, section I at 96.
[5] Lon Fuller, "Positivism and Fidelity to Law" *supra* note 1 section I at 660.
[6] Gödel, [1951] *supra* note 10, section IIIa at 320.
[7] *Ibid* at 322.

law. The overriding reason for this resonates very strongly with the most elemental proof in logic: that of non-contradiction. Non-contradiction is a quality of truth, and so all true statements are consistent with one another. I argue that the classical view of natural law is superior because it is consistent with the stated purpose of law. The law purports that consistency is the goal, so the law should be consistent with this claim: the procedures of law, *as well as the external morality* should all strive for consistency. Thus, when a court uses terms like "justice" and "truth", it should be understood that these are not terms of art, but *real concepts* that the court is striving to accomplish. This is the necessary understanding of natural law for this analogy to be consistent with Gödel's concept of how formal systems talk about natural numbers.

2. Natural Law & The Common Law

Before I discuss these matters further, I should be clear what I mean by "natural law". The classical theory of natural law shows how practical reason is used to discern the proper goals for law, and as a means for evaluating legal fitness. This view comports with Gödel's belief that abstract concepts are necessary to prove the consistency of number theory.[8]

There are many misconceptions about natural law that are employed as arguments for its elimination as a source of reason and law; e.g. that natural law is based on the Bible or religious law.[9] This misunderstanding of natural law has led to a positivist method of interpreting the law and human rights. But the common law was fashioned from the principles of the natural law; and the rights embodied in the US Constitution

---

[8] Gödel, [1951] *supra* note 10, section IIIa at 318.
[9] See e.g. *Southern Pac Co v Jensen*, 244 US 205, 222 (1917), J Holmes dissent: "The common law is not a brooding omnipresence in the sky, but the articulate voice of some sovereign or quasi-sovereign that can be identified…"

grew out of the common law.[10]

<u>2.a. Natural Law *Telos*</u>

The understanding of natural law dates back to the ancient Greeks:

"Greek philosophers reasoned by analogy from the cosmic order, with its constantly recurring and universal phenomena of physical nature, to an idealized social regime actualized by law. Right and justice were based upon the harmony or fitness involved in the nature of things. *These notions were universally valid. They were not a matter of human will.*"[11]

Aristotle provided a foundation of natural law, showing how the proper end of something was related to its 'nature'. Generally, all things exist by their 'nature' or by other causes.[12] In answer to 'why' an object of a particular nature comes to be in its state, Aristotle listed four causes: 1) substance (e.g. the bronze of a statue); 2) form (e.g. number; this relates to the 'forms' of Plato); 3) primary or proximate cause (e.g. the father of the child); and

"4) in the sense of *end* or *'that for the sake of which'* a thing is done, e.g. health is the cause of walking about. ('Why is he walking about?' we say. 'To be healthy', and, having said that, we think we have assigned the cause.)"[13]

It is this last point which concerns us most, this 'end' which Aristotle calls '*telos*', from which we derive our idea of means-end or teleological arguments.[14] Notice that while there may be many causes that lead to a result, it is only this last one, the *telos*,

---

[10] Brown, *supra* note 10, section II at 11-13. See Fuller, *Morality of Law*, *supra* note 3, section I at 99: "It is [during the seventeenth century] that scholars trace the "natural law foundations" of the American Constitution."

[11] Brown, *supra* note 10, section II at 9. [Italics added.] See also Tamanaha, Brian Z, "How An Instrumental View Of Law Corrodes The Rule Of Law" (2006-2007) 56 DePaul L Rev 469 at 474-7.

[12] Aristotle, *Physics*, translator RP Hardie (Oxford: Clarendon Press, 1930) [Aristotle, *Physics*] at 192b. Something of a given nature has an impulse to grow or change within itself; e.g. A tree might be cut down and fashioned into a bed by a craftsman, but it has no impulse to change into a bed by its own nature. "[N]ature is a source or cause of being moved and of being at rest in that to which it belongs primarily, in virtue of itself and not in virtue of a concomitant attribute." The fact that nature exists is self-evident and Aristotle says is beyond demonstration; at 193a: "That nature exists, it would be absurd to try to prove; for it is obvious that there are many things of this kind, and to prove what is obvious by what is not is the mark of a man who is unable to distinguish what is self-evident from what is not."

[13] *Ibid* at 194b. [Italicized for emphasis.]

[14] [Greek τελειος, teleios, (adj) completed; τελος, telos, (n) end].

which is the "*good*" that gives meaning to those other causes: 'that for the sake of which' means what is best and the end of the things that lead up to it."[15]

Aristotle defined "nature" as happening for a purpose rather than by coincidence.[16] Although some things may appear to be random, this is merely because we do not see or understand all of the causes at work: "It is absurd to suppose that purpose is not present because we do not observe the agent deliberating."[17]

As to necessity, Aristotle wrote that some things must happen to bring about the result, e.g. that the foundation must go below the wall, and the wall below the roof.[18] But the wall of this building goes towards the end or good of making a house, and not the other way around. Aristotle does allow that there are some necessaries that are so intrinsic to the process of becoming that they become part of its definition.[19]

Thomas Aquinas built on this understanding, stating that the *goal of practical reason* was the accomplishment of the human *telos*.[20] Aquinas agreed with Aristotle that the law must make account for the ordering of goods, and its implications of how the individual relates to this ideal community: just laws promoting and preserving virtue and happiness.[21]

Roman jurists also employed these same principles of universal ideals, using them as a basis for law-making and,

---

[15] Aristotle, *Physics*, *supra* note 12 at 195a.

[16] *Ibid* at 198b - 199a. There are, of course, aberrations, such as man-faced ox progeny, but to say that these prove that all nature is coincidence is to argue the exception, and to deny the idea of nature all together: "But the person who asserts this entirely does away with 'nature' and what exists 'by nature'. For those things are natural which, by a continuous movement originated from an internal principle, arrive at some completion…"*Ibid* at 199b.

[17] *Ibid*.

[18] *Ibid* at 199b – 200a.

[19] *Ibid* at 200a – 200b.

[20] Aquinas, *Summa Theologica, supra* note 100, section IIIa at I-II, Q 90 A 2. "Now the first principle in practical matters, which are the object of the practical reason, is the last end…"

[21] *Ibid* Q 90 A 2; (citing Aristotle, *Ethics* at 1129a-b.)

"as a norm with which to criticize the positive law….This *jus naturale* was an objective pattern unaffected by what individual men might think concerning its existence or content."[22]

Despite its history through diverse societies from Greece, through Roman law and on through Christian Europe, natural law is commonly confused with rules from the Bible or religious laws. But this is a misunderstanding: all people are subject to the natural law, not because it is written in the Bible, but because people are rational creatures and endowed with reason. Aquinas described the universal natural law as separate from the Bible, which he termed "divine law".[23] He argued that natural law is imprinted on all people, and residing within each person's ability to reason.[24]

2.b. Natural Law Foundation of Common Law

It was with this understanding of natural law that the common law developed.[25] Although it has been the fashion more recently to anathematize the natural law, English and American jurists have a long history of using the natural law as a second set of principles, apart from the positive law, as both a means of judging the reasonableness of laws, and as a means of reining in the law.[26] Sir William Blackstone echoed the sentiments of Aquinas from centuries before:

"This law of nature… is of course superior in obligation to any other. It is binding over all the globe in all countries, and at all times: *no human laws are of any*

---

[22] Brown, *supra* note 10, section II at 9.
[23] Aquinas describes four types of law: "eternal law", "natural law", "human law", and "divine law". See Aquinas, *Summa Theologica, supra* note 100, section IIIa at I-II, Q 91 A 1 – 4. The Divine law of the Bible is divided into the New and Old Testaments: At A 5: "Divine law is divided into Old and New. Hence the Apostle (Gal. 3:24, 25) compares the state of man under the Old Law to that of a child "under a pedagogue"; but the state under the New Law, to that of a full grown man, who is "no longer under a pedagogue."
[24] *Ibid* at I-II, Q 91 A 2, and Q 93 A 1.
[25] Tamanaha, *supra* note 10 at 469.
[26] Brown, *supra* note 10, section II at 11. Tamanaha, *supra* note 10 at 474.

validity, if contrary to this; and such of them as are valid derive all their force, and all their authority, mediately or immediately, from this original."[27]

This influence of natural law justice upon the common law can be seen as the authority of a judge to invalidate an unjust law. This procedure is most acutely demonstrated in the Courts of Chancery, or Equity, which, in pursuit of justice, could overrule the common law courts.[28] Equity, properly understood, is just another name for natural law.[29]

Leading up to the American Revolution and the era following, courts commonly disregarded statutes that were seen to violate the principles of natural justice.[30] The natural law was specifically invoked when the US Declaration of Independence was written; and the rights enshrined in the US Constitution were essentially those natural rights discovered by the operation of the common law.[31] Natural law concepts are seen in the language of the 5th and the 14th Amendments, and in the due process and equal protection clauses.[32]

While this explicit wording of rights in the Constitution serves the same function of keeping a check upon the positive law, there is one important difference: the natural law rights were understood to exist entirely separate from any written document, and

---

[27] William Blackstone, *Commentaries on the Laws of England*, (Philidelphia: Rees Welsh & Co, 1902) Vol 1 at 41. [Italicized for emphasis.]

[28] Henry James Sumner Maine, *Ancient Law*, (London: John Murray, 1906) at 72. Thus the old doctrine that "Equity flowed from the king's conscience."

[29] *Ibid* at 72: "The theories found in modern manuals of Equity are very various, but all are alike in their untenability. Most of them are modifications of the Roman doctrine of a natural law, which is indeed adopted in terms by those writers who begin a discussion of the jurisdiction of the Court of Chancery by laying down a distinction between natural justice and civil." See Steve Wexler, "Aristotle, Anomaly and Legal Theory", (2011) 7 Int'l Zeitschrift 79 at 86.

[30] Tamanaha, *supra* note 10 at 475.

[31] Brown, *supra* note 10, section II at 11-13. See US Declaration of Independence: "When in the Course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which *the Laws of Nature and of Nature's God* entitle them…" [Italics added.]

[32] Brown, *supra* note 10, section II at 11 – 12.

were not created by that writing.[33] This sentiment can be seen in the 9th Amendment:

"The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people."[34]

2.c. Formalism as Proto-Positivism

The enshrinement of natural law rights on paper led to a change in their operation and a general confusion of law and morals. Judges and legislators began to confuse the common law with the natural law: rather than create laws that conformed to an outside ideal, legislators sought to preserve a specific legal order.[35] But this view of positive law being identical with natural law is incompatible with the Thomistic-Aristotelian tradition.[36] The essential notion of natural law was that a perfect ideal of positive law was impossible, and that a *separate and distinct law of reason* was necessary to subjugate the former:[37]

> "Constitutional restrictions provide a new form of limitation that accomplishes some of the work done by the older understandings, but it does so in a reduced sense. It is law limiting itself, a step higher, but still a *contingent* body of law that can be changed through amendment or reinterpretation, if so desired. Lost in this transformation was the time-honored understanding that *there are certain things the government and legal officials absolutely cannot do with and through law* that the law possesses integrity unto itself and must comport with standards of good and right.[38]

This confusion of natural law with those written rights is essentially what has come to be known as *formalism*:

> "Stripped of all technicalities, this means that *government in all its actions is bound by rules fixed and announced beforehand*-rules which make it possible to

---

[33] Tamanaha, *supra* note 10, at 476.
[34] *Ibid* at 476; US Const, 9th Am.
[35] Brown, *supra* note 10, section II at 13. Justice Holmes famous quotation about the "brooding omnipresence" concerning the common law (*Southern Pac Co v Jensen*, *supra* note 9), is an example of this confusion.
[36] Brown, *supra* note 10, section II at 13.
[37] *Ibid* at 13 – 14.
[38] Tamanaha, *supra* note 10, at 477. [Italics added for emphasis.]

foresee with fair certainty how the authority will use its coercive powers in given circumstances and to plan one's individual affairs on the basis of this knowledge.[39]

This is known as a ""formal" understanding of the rule of law because it focuses only on the formal characteristics of law rather than on its content. The core idea is that the government must abide by legal rules declared publicly in advance."[40]

"As belief in natural law waned, the Supreme Court came to characterize rights and restraints on legislative powers in positivist terms tied to the language of the Constitution."[41] I say that formalism is a sort of 'proto-positivism' because both try to deny any operation outside of their own formal content: positivism denies the moral basis of law; formalism operates similarly when it denies the unwritten natural law basis of rights. Unlike the natural law, which has always existed, the power of the Constitution was perceived as being rooted in the popular will of the people: essentially all of its provisions could be changed by amendment.[42]

3. Law, Logic and Practical Reason

Another significant distinction from positivism, and which I mentioned earlier, is the central role that logic takes in natural law.[43] *Practical reason* is the very hallmark of natural law.[44] I have already shown how Gödel and Fuller are analogous in their

---

[39] FA Hayek, *The Road to Serfdom*, (London: University of Chicago Press, 2007) at 112. [Hayek, *Road to Serfdom*]

[40] Tamanaha, *supra* note 10, at 485.

[41] *Ibid*, at 477.

[42] *Ibid*.

[43] Positivists present a very limited application of logic: "[L]ogic does not prescribe interpretation of terms; it dictates neither the stupid nor intelligent interpretation of any expression. Logic only tells you hypothetically that *if* you give a certain term a certain interpretation then a certain conclusion follows. Logic is silent on how to classify particulars - and this is the heart of a judicial decision." Hart, "Separation of Law and Morals", *supra* note 45, section II at 610

[44] Finnis, *Natural Law*, *supra* note 14, section II at 18. cf J Wild, *supra* note 78, section II at 83: Practical reason attempts to determine the proper norms for conduct—not merely what is, *but also what ought to be*. [Italics added for emphasis.] See also Wilde at 81: Natural law theory "is the result of a disciplined effort to clarify the meaning of ethical concepts in terms of the ultimate ontological structures which they

condemnation of positivism. But on this topic of practical reason, Fuller's theory of

natural law is not analogous to Gödel, and reveals its positivistic influence.

Fuller acknowledges the importance of logic as 'reason', but he is inconsistent on

this point. For example, Fuller says that the opportunity for reasoned argument is the

"distinguishing characteristic" of adjudication.[45] Fuller also fairly states that the

"quintessence of the natural law point of view" is to adjudge an act against common right

or reason to be void.[46] Professor Fuller even supports my major assertion in this section

when he states that his "procedural" natural law theory is primarily concerned that the

law be "efficacious and at the same time remain what it purports to be."[47]

Yet in his stubborn refusal to admit any substantive theory of natural law,[48] Fuller

claims that logic, as the formal principle of the "law of identity" has no value in dealing

with contradictory laws:

> "But is there any violation of logic in making a man do something and then
> punishing him for it? We may certainly say of this procedure that it makes no
> sense, but in passing this judgment we are tacitly assuming the objective of giving
> a meaningful direction to human effort."[49]

It might be possible to forgive Fuller for attempting to trade off the difference

---

exemplify…In light of such analysis, universal moral principles may be rationally justified as founded on real facts…"

[45] Lon L Fuller and Kenneth I Winston, "The Forms and Limits of Adjudication", 92 Harvard Law Review 353, (1978), at 364. [Fuller, "Forms and Limits"]. Fuller believed that a logical system also has the effect of causing actors within this system to pull their actions toward "goodness" when they are forced to explain their decisions rationally. Fuller, "Fidelity to Law" at 636. Finnis says this is a relevant claim: "A tyranny devoted to pernicious ends has no self-sufficient *reason* to submit itself to the discipline of operating consistently through the demanding processes of law, granted that the rational point of such self-discipline is the very value of reciprocity, fairness, and respect for persons which the tyrant, *ex hypothesi*, holds in contempt." Finnis, *Natural Law*, *supra* note 14 at 273.

[46] Fuller, *Morality of Law supra* note 3, section I at 100.

[47] *Ibid* at 97.

[48] *Ibid*: "[W]e are concerned, not with the substantive aims of legal rules, but with the ways in which a system of rules for governing human conduct must be constructed and administered…"

[49] *Ibid* at 95-6.

between "formal logic" and "practical reason",[50] except that it contradicts his own

statements regarding "logic" and "policy" in law, moving along together:

> "[O]ne may … speak of a decision being primarily determined by "logic" or primarily determined by "policy", meaning, in the second case, to refer to the situation where policy and logic are working together, and *where the assistance of logic is more or less taken for granted*. But this is a dangerous way of speaking and easily leads to such absurdities as the notion that legal logic can function *in vacuo* without premises shaped by considerations of policy (a belief which legal realists have sometimes been willing to attribute to their, opponents), *or the notion that in the determination of policy, logic is not involved*, and one must here depend wholly upon intuition and hunch....[51]

It is absurd to suggest that a lawmaker is using something other than logic in

determining that it would be better not to punish someone for following the law, but this

is the labored result of Fuller's attempt to disconnect natural law theory from discerning

anything substantive. Fuller needs to show that all of natural law is based on procedure,

and so he attempts to show that logic can be severed from policy before anyone

concludes that logic or reason could deduce those substantive truths about human

morality.[52] In carrying on this pretence, Fuller tries to control this obvious deficit by

nominalist measures: "[I]nstead of speaking of "contradictions" in legal and moral

argument we ought to speak of "incompatibilities."[53] Or we should say these laws are

"repugnant" or "inconvenient", or that there is a "clash of ... two provisions" in the law.[54]

But if someone did not understand what a judge meant by a law being "repugnant", the

---

[50] See Wilson Huhn, "The Use and Limits of Syllogistic Reasoning in Briefing Cases" (2002) 42 Santa Clara L Rev 813 at 818. In general, we can say that legal reasoning is syllogistic in form and evaluative in substance; or more simply, legal logic follows paths that are *reasonable*, but are often based on policy, societal norms or other factors that do not *entail* the judge's conclusion in the same manner as in a formal logic argument.

[51] Fuller, "Williston on Contracts", *supra* note 86, section IIIa at 9. [Italicized for emphasis.]

[52] Fuller, *Morality of Law supra* note 3, section I at 96 betrays a certain naïveté in his discussion when he distinguishes his procedural version of natural law as being entirely "terrestrial" and having nothing to do with the "brooding omnipresence". [Have any others pointed out this naïveté?]

[53] *Ibid* at 69.

[54] *Ibid* at 68-9.

obvious answer would be that the law *contradicted* the stated goals of the Constitution, or some other source of law. Clearly Fuller is using nominalist wordplay, (or political correctness, or Newspeak), *to hide the pervasive influence of reason in the law*.

4. Fuller's Positivist Denial of Absolutism

While Fuller is presented as a champion of natural law, his denial of substantive natural law is based on an unwillingness to accept the concept of absolutes. The denial of absolutes, or the ability to know about them, stems from positivist thought.[55] Fuller's natural law theory stands in contrast to the analogous view of Gödel: mathematical concepts that we can neither create nor change.[56]

Fuller acknowledges that there may be "some constancy in the nature of man himself", but he is unwilling to assert any particulars, as those might prevent some from accepting his particular theory of 'eunomics':

> "In stating the case for eunomics I have tried to keep it distinct from the natural law problem first discussed, that is, whether "the nature of man" can furnish a meaningful standard for ethical judgments. One may emphatically reject this standard and yet accept eunomics."[57]

Fuller admits knowing of "no "absolute": "Human life is in this sense as close to an absolute as anything we have, yet it furnishes little guidance to [rationing scarce

---

[55] Fuller's reluctance to embrace moral absolutes does not prevent me from defining them: "Let us mean by an absolute moral principle a judgment or precept as to what it is good for us to do that always has force or a judgment as to what we must not do that admits of no exceptions." Ralph McInerny, *Ethica Thomistica*, (Washington: Catholic Univ Press, 1982, 1997) at 47. For a review of eunomics, discussed earlier, see Fuller, "American Legal Philosophy", *supra* note 27, section II at 477: "Because of the confusions invited by the term "natural law," I believe we need a new name for the field of study I am here recommending. I suggest the term "eunomics," which may be defined as the science, theory or study of good order and workable arrangements. Eunomics involves no commitment to "ultimate ends.""
[56] Gödel, [1951], *supra* note 10, section IIIa at 320.
[57] Fuller, "American Legal Philosophy", *supra* note 27, section II at 480-1.

resources]."[58] It is obvious from this that Fuller's evaluation that he is not *consciously*

committed to either the "relativist" view or the "absolute" view:

> "The expressions "absolute" and "relative" …are simply unanalyzed terms of censure and praise… Neither term seems to me to present anything like a justiciable issue."[59]

But Fuller's refusal to acknowledge the existence or absolutes, or even the difference

between absolute and relative, ultimately places him in the relativist camp.

I think I am safe in declaring that Fuller's view is agnostic. Agnosticism is the

denial of the "validity of metaphysical knowledge, i.e. knowledge of any domain of

reality beyond that of sense experience."[60] Through reason it is possible to see that those

things known only by sense are limited to the relative.[61] The idea that the human mind

cannot know absolutes, and that it is limited only to the relative, is a positivist dogma that

is the natural result of limiting knowledge to only sensual data.[62] Therefore, by denying

any knowledge of the absolute, Fuller has limited himself only to sensualist knowledge,

and this type of thinking is indicative of positivism.

While Fuller does not say that extra-sensory knowledge is not possible, he

achieves the same result by admitting no knowledge of any absolute. It is difficult to

understand Fuller's comment that "absolute" and "relative" not presenting "a justiciable

issue" in anything but a nominalist sense. Fuller's intent is shown by his omission of a

substantive theory of natural law and the universal *telos to support it*, and this is a denial

---

[58] *Ibid* at 480.
[59] *Ibid* at 480.
[60] Coffey, *supra* note 38, section IIIa at 18.
[61] *Ibid* at 328.
[62] *Ibid*. Coffey says that this positivist dogma "derives any plausibility it has from its ambiguity." See also at 329, where Coffey (citing Maher, *Psychology*, (NY: Longmans,1902) says that our sense of reason should recognize the absolute by the fact that we can recognize the relative *to be relative*.

of the natural law described by Aquinas, and Aristotle before him.[63] As I shall show,

Fuller's denial of absolutes has the expected result: his natural law morality is relativistic.

4.a. Moral Relativism

Fuller's idea of a popularly conceived morality, rather than one based in the

natural law, confuses the idea of "morality" and leads to moral relativism.[64] Also, Fuller's

disregard of the traditional conception of the law as an immanent order leads to doubts of

judicial objectivity and tends to undermine the notion of the rule of law.[65] It is fitting,

then, that D'Amato accounts Fuller's as a positivistic theory of natural law.[66]

Fuller rejects the traditional notion of substantive natural law, which finds a

different result not only in *what* morals may be selected, but also in their temporal

quality. Traditional natural law,

> "holds that some things are right for all times and all places, other things are
> always wrong, and two reasonable people could not differ about which was which
> because if they differed then one of them would not be reasonable."[67]

Professor Anthony D'Amato demonstrates how "morality" could be discussed as

being universally valid, or as being relative.[68] Universally valid laws, e.g. condemning

the torture of an innocent child, or as we saw in *Riggs*, the killing of a person for the

killer's personal profit, are labeled 'M-1'; but relative "morality", M-2, is used to

describe something that is 'immoral' in some societies, and 'moral' in others. D'Amato

---

[63] Fuller, *Morality of Law supra* note 3, section I at 96-98. At 96: "[W]e are concerned, not with the substantive aims of legal rules…" At 98: "[T]hinkers associated with the natural law tradition.…[were chiefly concerned] with…substantive natural law, with the proper ends to be sought though legal rules.…Aquinas is probably typical in this respect."

[64] D'Amato, "Substantive Natural Law", *supra* note 27, section II at 202-204.

[65] Brian Z Tamanaha, *supra* note 10 at 469-70.

[66] D'Amato, "Substantive Natural Law", *supra* note 27, section II at 202.

[67] *Ibid* at 204.

[68] *Ibid*, at 205. D'Amato uses the example of extramarital sexual intercourse between consenting adults. This practice may not be frowned upon today, but one hundred years ago the opposite opinion was quite commonly held.

says that whatever a person uses as the latter example of "morality", M-2, is for that person, not really 'morality' at all, but is rather 'custom'.[69] In contrast, a person referring to M-1 morality is talking about something that this person would feel is wrong or right, no matter where it occurred.[70] A *reasonable* person would feel an inner compulsion to stop a child from being tortured. So M-2, or "moral relativism" is really a misleading term because it doesn't really describe morality.[71]

Practical reason shows that this method of determining human good is illogical:

> "[C]ontemporary [skepticism] about the basic human goods …[is] based on a logically illicit slide…from "is" to "ought". For example: …
> - X is not universally /commonly regarded as good/obligatory, so X is not good/obligatory.
>
> Explicit natural law theory was launched by Plato and Aristotle, *precisely as a critique of non sequiturs such as these*."[72]

There is a similar misconception in the modern account of natural law, which confuses the human good as identified by the "requirements of practical reasonableness", with the perceived benefits bestowed on a large number of persons:

> "[O]utside the contexts established by simple goals … there is, in situations of morally or political significant choice, *no* net greatest good or lesser evil to be identified by aggregative calculations or assessments. The belief that there is is not merely practically chimerical, but incompatible with free choice, and incoherent."[73]

And yet Fuller is guilty of both of these errors. In his essay, "Reason and Fiat in Case Law", Fuller uses the example of people shipwrecked on a desert island to show how natural law principles are developed.[74] The man chosen to be the judge would discover the natural law by making sure,

---

[69] *Ibid*, at 205.
[70] *Ibid*, at 205-6.
[71] *Ibid*, at 207.
[72] Finnis, "Natural Law Tradition", *supra* note 43, section II at 493. [Italics added for emphasis.]
[73] *Ibid*, at 494.
[74] Fuller, "Reason and Fiat", *supra* note 4, section II at 377-81.

"that his decisions were *right - right for the group, right in the light of the group's purposes and the things that its members sought to achieve through common effort*. Such a judge would find himself driven into an attempt to discover the natural principles underlying group life, so that his decisions might conform to them. He would properly feel that he, no less than the engineers and carpenters and cooks of the company, was faced with the task of mastering a segment of reality and of discovering *and utilizing its regularities for the benefit of the group*."[75]

Fuller's natural law, as the desert island judge discovers, is good because it is universally *regarded* as good. The requirements of practical reasonableness in Fuller's view are identified by aggregative calculations. Fuller's natural law is arbitrary, as it is relative to the shipwrecked group, arrived at by an informal consensus. This philosophy of shared purposes is not enough to prevent the group from committing an immoral act: the morality arrived at in this scheme is the M-2 moral relativity.[76] "[Fuller] seems to want a philosophy that is based on morality but he also wants one that is neutral."[77]

5. Naturalist Fallacy

A theory of natural law that is analogous to Gödel's Theory should be logically consistent, and this is what we find in the classical theory as presented by Aquinas. Fuller's theory, once again, falls short of the mark.

One of the chief complaints about natural law is the so-called 'naturalist fallacy', which asserts that there is a logical error involved in "deducing conclusions about what ought to be from premises that state only what is the case; or the other way about."[78] The "naturalist fallacy" refers to reasoning that, upon close inspection, involves tautology. The term might best pertain to the work of philosophers and natural law theorists who have not studied Aquinas.

---

[75] *Ibid*, at 378. [Italics added for emphasis.] See also D'Amato, *supra* note 26, at 210-11.

[76] D'Amato, "Substantive Natural Law", *supra* note 27, section II at 213.

[77] *Ibid* at 218.

[78] Anthony Flew, *A Dictionary of Philosophy*, (New York: St Martin's Press, 1984) at 240.

The discovery of this alleged fallacy is credited to David Hume, but the term was invented, and the logical error more fully described by G. E. Moore.[79] Taking them in order, Hume noted that in "every system of morality" he had ever encountered, there was always a leap in reasoning from the "is" to the "ought" without ever establishing how the latter was proven.[80]

Moore's explanation is perhaps just a more generalized statement of Hume's discovery, but his work is widely considered the most influential on this topic.[81] Moore says that the problem with natural law theory comes about when an illogical equivalence is made between some "natural" quality and its goodness; i.e. there is a non-necessary deduction of a normative aspect from a descriptive one:

> "For whatever we may have proved to exist, and whatever two existents we may have proved to be necessarily connected with one another, it still remains a distinct and different question whether what thus exists is good; whether either or both of the two existents is so; and whether it is good that they should exist together. To assert the one is plainly and obviously *not* the same thing as to assert the other. We understand what we mean by asking: Is this, which exists, or necessarily exists, after all, good? In the face of this direct perception that the two questions are distinct, no proof that they *must* be identical can have the slightest value."[82]

Here is an example of the type of reasoning Moore is describing: Suppose that I am defending the United States to a Canadian, explaining that the United States is 'good'

---

[79] GE Moore, *Principia Ethica*, (Cambridge: Cambridge University Press, 1903, 1959).

[80] Hume, David, *A Treatise of Human Nature*, L Selby-Bigge, ed (Oxford: Clarendon Press, 1888) at 469. "[T]he author proceeds for some time in the ordinary way of reasoning, and establishes the being of a God, or makes observations concerning human affairs; when of a sudden I am surpriz'd to find, that instead of the usual copulations of propositions, is, and is not, I meet with no proposition that is not connected with an ought, or an ought not. This change is imperceptible; but is, however, of the last consequence. *For as this ought, or ought not, expresses some new relation or affirmation, 'tis necessary that it shou'd be observ'd and explain'd; and at the same time that a reason should be given*, for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it." [Italics added for emphasis.]

[81] McInerny, *supra* note 55 at 49.

[82] Moore, *supra* note 80 at 10-15 (§10-§12).

because it kills all the terrorists.[83] In other words, my point that the "United States is good" is tantamount to saying that "The United States kills all the terrorists." But if 'good' = 'killing all the terrorists', then saying that the United States is good *because* it kills all the terrorists is equivalent to saying that the United States is good because it is good. This is, of course, a tautology.

Basically, Moore is saying there is a "gap between fact and value that cannot be closed by citing facts about the valued thing": The relation between the properties of the thing in question and our calling it 'good' are wholly contingent.[84] Moore reasons that if the properties of the thing are not related to its 'goodness', "so far as the meaning of good goes, anything whatever may be good".[85]

Moore's and Hume's critique might well apply to those confused theories of natural law, which were not founded upon Aristotle or Aquinas, and which owed more to the bias of the authors than to logical consistency. For example, Moore criticizes Herbert Spencer's positivistic, Darwinian explanation of natural law, which supposed that Europeans were more highly evolved than American Indians, thus enabling them to survive better. As Moore put it: "We can kill them more easily than they can kill us."[86] In this example, Moore says that Spencer is using the theory of evolution unreasonably; making the leap that "more evolved" is the same as "good".[87]

---

[83] I have reworked McInerny's example of why a Yugo was a good car, in McInerny, *supra* note 55, at 49-50. Note: I am both a US and a Canadian Citizen, so I could very well be talking to myself.

[84] *Ibid* at 50.

[85] Moore, *supra* note 80, at 20 (§14).

[86] *Ibid* at 47 (§30). Moore is referring to Herbert Spencer's "The Data of Ethics", in *The Principles of Ethics*, *Vol I* (New York: Appleton, 1898).

[87] Moore, *supra* note 78, at 48 (§30). "The survival of the fittest does not mean … the survival of what is fittest to fulfil [sic] a good purpose best adapted to a good end: at the last, it means merely the survival of the fittest to survive; and the value of the scientific theory…just consists in shewing [sic] what are the causes which produce certain biological effects. Whether these effects are good or bad, it cannot pretend to judge." In addition to misunderstanding logic, Moore accuses Spencer of basing his 'social Darwinist'

5.a. Refutation of Hume

The simple answer to Hume's supposition that the 'ought' cannot be derived from the 'is', is to suppose the contrary. Instead of human beings sharing a common nature, "such that certain things are true of any of them insofar as they are human"; we should assume that human beings are just random products of natural selection, with "no built in purpose that we might discover."[88] Very simply, Hume is asking us to suppose that "[t]he way things are gives us no clue as to what we ought to do".[89] Besides being ridiculous on its face, this makes a mockery of the entirety of law: for if this is the case, how should people be held to account for anything?

5.b. Criticism of Moore

Fifty years had passed before anyone noticed that Moore's 'naturalist fallacy' was, itself, largely based on a logical fallacy that ignored the difference between predicative and attributive adjectives:[90]

> "[I]n a phrase 'an A B' ('A' being an adjective and 'B' being a noun) 'A' is a (logically) predicative adjective if the predication 'is an A B' splits up logically into a pair of predications 'is a B' and 'is A'; otherwise … 'A' is a (logically) attributive adjective."[91]

Thus, I can take the sentence "She is a tall lawyer", and divide that into "she is tall" and "she is a lawyer." But if I say that "She is a *good* lawyer", it would not be the same thing as saying that "she is good", and "she is a lawyer".[92] This is because 'good'

---

theory upon a misunderstanding of Darwin: "But it is to be noted that this forms no part of Darwin's scientific theory." *Ibid* at 47. But the title of the book explaining Darwin's theory about evolution seems to lend itself very easily to this sort of fantasy. See Charles Dawin, *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life*, (New York: Appleton, 1875).
[88] McInerny, *supra* note 55 at 48.
[89] *Ibid*.
[90] PT Geach, "Good and Evil" (1956) 17 Analysis 33.
[91] *Ibid*, at 33. McInerny, *supra* note 55 at 50.
[92] See McInerny, *supra* note 55 at 50.

and 'evil' are *attributive* adjectives, not *predicative*.[93] Therefore, this relation between

'good' and 'lawyer' can only be figured out by looking into what it means to be a

lawyer.[94] Apparently several generations of positivists had been fooled by a simple

grammatical error.[95]

5.c. Aquinas' Superior Logical Foundation

All of these confused ideas about the natural law, and logical fallacies might have

been avoided if philosophers had studied Aquinas more closely. Aquinas firmly

establishes the groundwork for natural law that leaves no room for a logical attack via

naturalistic or any other fallacy.

As I noted in the earlier discussion regarding the law of non-contradiction, there

are always certain self-evident premises that must be admitted into any proof. Aquinas

plainly states that "the first principles of natural law, which specify the basic forms of

good and evil and which can be adequately grasped by anyone of the age of reason (and

not just by metaphysicians), are per se nota (self-evident) and indemonstrable."[96] It is

oddly inconsistent that skeptics will willingly accept self-evident principles that the

natural sciences and all theoretical disciplines rest upon, but then object to the use of

---

[93] Geach, *supra* note 91 at 33. Note: Geach says that there are exceptions, but they prove the rule, at 34.
[94] McInerny, *supra* note 55 at 51. The idea that Moore uses about describing things with 'natural' and 'non-natural' attributes also fails because "nobody has ever given a coherent and understandable account of what it is for an attribute to be non-natural." Geach, *supra* note 91 at 35.
[95] See McInerny, *supra* note 55, at 51: "Fifty-three years had intervened between Moore's egregious mistake and Geach's grammatical correction."
[96] Finnis, *Natural Law*, *supra* note 14, section II at 31. See Aquinas, *Summa Theologica, supra* note 100, section IIIa at I-II, Q 91 A 3: "Now it is to be observed that the same procedure takes place in the practical and in the speculative reason: for each proceeds from principles to conclusions, as stated above ... Accordingly we conclude that just as, in the speculative reason, from naturally known indemonstrable principles, we draw the conclusions of the various sciences, the knowledge of which is not imparted to us by nature, but acquired by the efforts of reason, so too it is from the precepts of the natural law, as from general and indemonstrable principles, that the human reason needs to proceed to the more particular determination of certain matters."

these same principles, or at least strongly analogous versions of such, when they are used to establish the principles of practical reason.[97]

Aquinas' discussion of the first principles includes, notably, an explanation of what it means to be self-evident: "Any proposition is said to be self-evident in itself, if its predicate is contained in the notion of the subject".[98] There is no middle term required to explain the conjunction between the subject and predicate because it is immediately apparent from the meaning of the terms that the proposition is either true or false.[99] In this can be seen the difference between apprehension and judgment, because it is necessary to understand the meanings of the *terms* of a proposition before we can create a meaningful proposition from those terms.[100]

Aquinas establishes his first principles in a specific order, and calls our attention to the logical relation being demonstrated between them.[101] The first universal notion that must be apprehended, says Aquinas, is *being itself*, "the notion of which is included in all things whatsoever a man apprehends."[102] It is upon this first notion, Aquinas adds the principle of *non-contradiction*, citing Aristotle's *Metaphysics*: "It is impossible *for the same attribute* at once to belong and not to belong to the same thing and *in the same*

---

[97] Finnis, *Natural Law*, *supra* note 14, section II at 31-2.

[98] Aquinas, *Summa Theologica, supra* note 100, section IIIa at I-II, Q 94 A 2.

[99] See McInerny, *supra* note 55 at 41.

[100] *Ibid* at 41. Note that it is possible for a person not to understand the essence of the terms being discussed, in which case such a proposition would still be self-evident, but not to that particular reader. Aquinas, *Summa Theologica, supra* note 100, section IIIa at I-II, Q 94 A 2. cf *Summa* at I, Q2 A1: "If, however, there are some to whom the essence of the predicate and subject is unknown, the proposition will be self-evident in itself, but not to those who do not know the meaning of the predicate and subject of the proposition." Thus, "A thing can be self-evident in either of two ways: on the one hand, self-evident in itself, though not to us; on the other, self-evident in itself, and to us." (This has often been my own experience in reading papers on philosophy.)

[101] Aquinas, *Summa Theologica, supra* note 100, section IIIa at I-II, Q 94 A 2: "Now a certain order is to be found in those things that are apprehended universally."

[102] *Ibid* at I-II, Q 94 A 2.

relation".[103] Essentially Aquinas is saying that first of all, *we know*, "and then secondarily and reflectively *know the way we know*".[104] Thus, as beings, we first grasp our own being, and then "the good is the first thing grasped by [the] mind in its practical function of directing some operation."[105]

It may seem to some that mentioning the "good" at this point is merely begging the question, but that notion does not apprehend the essence of being, and what this entails: "*We desire to do what we are actually doing*."[106] This would seem self-evident enough. The other half of this step is provided by the maxim: "whatever is desired is desired in the form of good":[107]

> "We shall…find ourselves talking nonsense if we try to describe a people whose custom it was, when they wanted A's, to choose A's they thought bad and reject A's they thought good."[108]

Certainly, it may be said that a person might be mistaken in desiring something *that he only thinks* is perfective and fulfilling.[109] But this mistake does not refute the fact that our actions are based on the assumption that the object of our desire deserves the "formality under which it is desired"; i.e. that it is "perfective and fulfilling."[110]

---

[103] *Ibid* at I-II, Q 94 A 2. [Italics added] Aristotle, *Metaphysics*, *Aristotle in 23 Volumes*, Vol 17, 18, trans Hugh Tredennick, (Cambridge, MA: Harvard University Press, 1933, 1989) at 1005b "Clearly, then, it is a principle of this kind that is the most certain of all principles. Let us next state what this principle is. "It is impossible for the same attribute at once to belong and not to belong to the same thing and in the same relation"; and we must add any further qualifications that may be necessary to meet logical objections. This is the most certain of all principles, since it possesses the required definition;" cf Aquinas, *Summa Theologica, supra* note 100, section IIIa at I, Q 2 A3: "Now it is not possible that the same thing should be at once in actuality and potentiality in the same respect, but only in different respects."

[104] McInerny, *supra* note 55, at 42. [Italics added]

[105] *Ibid* at 42. See Aquinas, *Summa Theologica, supra* note 100, section IIIa at I-II, Q 94 A 2: "Now as being is the first thing that falls under the apprehension simply, so good is the first thing that falls under the apprehension of the practical reason, which is directed to action: since every agent acts for an end under the aspect of good."

[106] McInerny, *supra* note 55, at 37. [Italicized for emphasis.]

[107] Geach, *supra* note 91, at 38: "quidquid appetitur, appetitur sub specie boni."

[108] *Ibid* at 39.

[109] McInerny, *supra* note 55, at 37.

[110] *Ibid*.

It is the very nature of the 'good' that fills this two-fold role of being both desired

and normative:

> "The first principle of practical reason is grounded in the knowledge of the notion
> of goodness…. The good is that which all things seek. This is what 'good' is
> taken to mean, just as 'being' means that which exists. But something is *sought*
> *insofar as it is completive or perfective of the seeker*. Thus 'good' *does not simply*
> *designate an object of pursuit; it gives the formality under which the object is*
> *sought or pursued: as completive, as perfective*."[111]

Reviewing these in order, I can derive Aquinas' next principle:

1. I exist; it is the nature of existence that a thing cannot both exist and not exist
   in the same way and at the same time;
2. Therefore, the rule of non-contradiction.
3. It is also in the nature of being that I seek after the '*good*';
4. Therefore, "this is the first precept of law, that "good is to be done and
   pursued, and evil is to be avoided.""[112]

 It is easy to see that "[t]he first principle of *practical* reasoning [is] analogous to the first

principle of reasoning".[113]

The remaining precepts of natural law follow from this, and are ordered according

to their natural inclination: [114]

1. Preserving human life, and of warding off its obstacles;
2. Sexual Intercourse (Marriage/procreation);[115]
3. Education of offspring;
4. To know the truth about God; and
5. To live in society.

"If the human good is the good that is peculiar and proportionate to the kind of

agent he is", then it is perfective of man as a *rational agent*.[116] Therefore man's

---

[111] *Ibid* at 42.

[112] Aquinas, *Summa Theologica, supra* note 100, section IIIa at I-II, Q 94 A 2.

[113] McInerny, *supra* note 55, at 42.

[114] Aquinas, *Summa Theologica, supra* note 100, section IIIa at I-II, Q 94 A 2. Note that the order of these
precepts lists first those things that man shares with all creatures, then those that are shared with animals,
and finally, those which are particular to man. McInerny, *supra* note 55 at 45.

[115] Aquinas uses the latin phrase, "coniunctio maris et feminae", or literally, "the union of the male and the
female".

[116] McInerny, *supra* note 55 at 45.

perfection is the perfection also of his rational activity. So, while mankind shares with other creatures the survival instinct, the inclination to reproduce is more particularized because it is only a part of the human good "insofar as [it is] humanized, that is insofar as [it is] pursued, not just instinctively, but as the aim or goal of conscious action."[117]

This is only a summary of Aquinas' first principles of natural law, found in the *Summa Theologica*. There is much more to be found on this topic, but this is sufficient to show how Aquinas' reasoning was far superior to those more modern theorists in resolving the problems of how good is, at once, sought after and also used to evaluate other things. Note also that the natural law is not understood to be an invention of Aquinas, or of Aristotle, but is the ordered property of existence. Therefore it is more proper to say that principles of *natural law* were 'discovered' by these scholars.

5.d. Fuller's Criticism of Naturalistic Fallacy

Fuller's view was in agreement with some concepts of the classical theory of natural law, i.e. that fact and value were inseparable when interpreting events. But Fuller did not presuppose universal human goods that were discoverable by rational inquiry. Instead he viewed fact and value as two necessary aspects for showing the efficacy of rules, and thus Fuller proved their inseparability from an instrumental perspective. This instrumentalist understanding of law is not consistent with Gödel's concept of math terms forming an objective reality, and is subject to the naturalist fallacy.

Fuller's instrumentalist view is shown in his example of the boy on the beach, whose actions were inexplicable to an observer, until it was understood that the boy was trying to open a clam.[118] Once we knew the boy's purpose, we were better able to judge

---

[117] *Ibid*.
[118] Fuller, Lon, "Human Purpose and Natural Law" (1956) 53 Jour of Phil 697 at 697-8.

whether his actions were 'good'. Fuller's other example was to compare the role of a judge to that of the mechanic, who was more capable than the English professor in deciphering the instructions on how to assemble a machine.[119]

In these examples Fuller showed the limitations of both language and the positivistic theory to make out the meanings of law. But both of these examples were limited to the instrumental view of the law; i.e. that the legal system was more *functional* when it was understood that fact and value were inseparable. But Fuller does not explain how these are discoverable goods with inherent value, apart from their usefulness to judges in understanding law.

5.e. Contingent/Antecedently Fixed *Telos*

Fuller's refusal to promote any substantive component in his natural law theory[120] is incompatible with one of the traditional core beliefs of natural law: that positive laws must have a moral content or a person would not be obligated to obey.[121] Again Fuller is more in keeping with the traditional *positivist* view, that law is as it *is*, and not as it *ought* to be.[122] If a legal system functioned well procedurally, it is hard to imagine that Fuller's natural law would declare void any iniquitous law.

As I have already noted, Fuller's natural law theory does not describe the external morality, but rather promotes eunomics, which is not premised on any *telos*, and is

---

[119] Fuller, "American Legal Philosophy", *supra* note 27, section II at 469-70.
[120] Fuller does include a vaguely worded admonition to open channels of communication. See Fuller, *Morality of Law*, *supra* note 3, section I at 186.
[121] See SB Drury, "HLA Hart's Minimum Content Theory of Natural Law" (1981) 9 Political Theory 533 at 534: "A morally iniquitous law cannot be valid." Also see Aquinas, *Summa Theologica, supra* note 100, section IIIa at I-II, Q 96 Art 4, (citing Augustine): "[A] law that is not just, seems to be no law at all." See also Cicero, *Laws*, trans CD Yonge, (London: George Bell & Sons, 1878) Book II, V: "[W]e cannot call that the true law of a people, of whatever kind it may be, if it enjoins what is injurious, let the people receive it as they will. For law is the just distinction between right and wrong, made conformable to that most ancient nature of all, the original and principal regulator of all things, by which the laws of men should be measured, whether they punish the guilty or protect and preserve the innocent."
[122] Drury, *supra* note 122 at 534.

necessarily contingent.[123] A proper *telos* is not contingent, but is antecedently fixed.[124]

A human telos is supposed to serve as a moral agent. Moral conduct might promote some seemingly worthwhile achievement, but all actions premised on eunomics, or "the success of the community", are not necessarily moral.[125] Fuller denies that there can be any use of practical reason to discern these values antecedently because the "morality of duty … is essentially a morality of the in-group."[126] Fuller admits that he presents an unresolved dilemma, because the moral code he describes is "essentially arbitrary".[127] Any choice that contradicts the antecedently fixed basic premises of natural law, fails within a teleological framework, and tends to confound the very idea of a natural law.

6. Abandoning the Natural Law Causes a Confusion Over Rights

As with Gödel's statement that proving the consistency of classical number theory was dependent upon the use of abstract concepts, the abstract concepts of natural law provides direction for both the substance of the law and its procedure. The moral order of law is based on practical reason. I will give a brief demonstration of how abandoning the natural law understanding of rights has resulted in confusion of the meaning and proper boundaries of rights.

---

[123] Fuller, "American Legal Philosophy" *supra* note 27, section II at 477.
[124] Aquinas, *Summa Theologica, supra* note 100, section IIIa at II-II, Q 47, A 6. "[J]ust as, in the speculative reason, there are certain things naturally known, about which is understanding, and certain things of which we obtain knowledge through them, viz. conclusions, about which is science, so in the practical reason, certain things pre-exist, as naturally known principles, and such are the ends of the moral virtues, since the end is in practical matters what principles are in speculative matters." "[T]he ends of moral virtue must of necessity pre-exist in the reason."
[125] Fuller, *Morality of Law*, *supra* note 3, section I at 182. "Within a functioning community, held together by bonds of mutual interest, the task of drafting a moral code is not difficult. It is comparatively easy to discern in this situation certain rules of restraint and cooperation that are essential for satisfactory life within the community and for the success of the community as a whole."
[126] *Ibid*.
[127] *Ibid*.

"Inalienable" means that the right cannot be lost: it cannot be taken by a legislature, nor can a person give it away.[128] To be clear, saying that a right is "inalienable" means that it is impossible to alienate the *right*, but not the object of that right.[129] For example, a convict may lose his life because he has committed a capital offense, but he must be executed according to law.[130] If the sheriff acts on his own authority, and exchanges the proscribed means of death for another, the sheriff has committed a homicide. This is because the murderer must surrender his life, but not his *right* to life.

The only complete and consistent theories of inalienable rights come from the natural law.[131] It is obvious and tautological to assert that inalienable rights come from a system of law that exists prior to the positive law.[132] If the positive law established rights, then they could hardly be *inalienable* because the positive law could be changed. "The natural inalienable right to life presupposes law that determines when the taking of life is lawless."[133]

---

[128] Blackstone, *supra* note 27, at Bk I, p 54. Craig Stern & Gregory Jones, The Coherence Of Natural Inalienable Rights, (2007-2008) 76 UMKC L Rev 939 at 951.

[129] *Ibid* at 952.

[130] Blackstone, *supra* note 26, Book IV at 178-9.

[131] Rommen, Hemnch Albert, *The Natural Law: A Study in Legal and Social History and Philosophy*, translated by Thomas R. Hanley, (Indianapolis: Liberty Fund, 1998, 1946), at 216, FN 50, citing Thomas P Neill, *Weapons for Peace,* (Milwaukee: Bruce Publishing Co, 1945), p 155: "It is from natural law, and from it alone, that man obtains those rights we refer to as inalienable and inviolable. Man's only right, in the last analysis, is the right to be a man, to live as a human person. Specific human rights, then, are all based on man's right to live a human life….Human rights can have no foundation other than natural law. Legally, of course, they come from the state, but if a legal 'right' is truly to be a right it must be based on natural law--which is only another way of saying that it must be based on man's *v*ery nature. And since they are based in human nature they are really inalienable and morally inviolable. Only the Creator of human nature can take them away, and God could do that without contradicting Himself only by changing human nature itself. Thus the soundest, the only foundation of those human rights so flagrantly violated today is natural law. The only foundation for a sound structure of government and of all social institutions is natural law."

[132] Stern, *supra* note 129 at 955, 970-1.

[133] *Ibid* at 981.

6.a. Consistency in Natural Law Theories of Inalienable Rights

The consistent theories of inalienable rights rely on the truth of a moral order that imposes natural limits on those rights.[134] These can be seen in a number of ways. For example, inalienable rights can be viewed as coming from the shared nature of human beings.[135] If human beings cannot alter these rights, then they are beyond human will.[136] Therefore, if we say that autonomy means limitless self-rule, then a theory of inalienable rights based on human nature would not allow autonomy over those rights.

Similarly, one can conceive of inalienable rights as being "endowed by their Creator" as it is claimed in the Declaration of Independence.[137] As described by this theory, God is the grantor and only He can determine whether they may be alienated.[138]

Another theory posits that inalienable rights are derived from a natural duty that is imposed upon human beings: if the duty is absolute, then there must be an inalienable right to fulfill that duty.[139] One example of this can be found in the freedom of worship:

> "It is inalienable also, because what is here a right towards men, is a duty towards the Creator. It is the duty of every man to render to the Creator such homage and such only as he believes to be acceptable to him."[140]

It is easy to see the operation of reason in these various theories because they are consistent, and can be made consistent with one another. They also enjoy the benefit of describing their own natural and reasonable limit: "All of these presuppositions embrace commitments to some moral order that forbids the exercise of complete autonomy."[141]

---

[134] *Ibid* at 971.
[135] *Ibid* at 957.
[136] *Ibid* at 958.
[137] The Declaration of Independence para. 2 (US 1776).
[138] Stern, *supra* note 129 at 960.
[139] *Ibid* at 964.
[140] James Madison, "Memorial and Remonstrance Against Religious Assessments" (1785) in John J Patrick, ed, *Founding the Republic: A Documentary History* (Westport, CT: Greenwood Press, 1995) at 90.
[141] Stern, *supra* note 129, at 971.

6.b. Incomplete Positivist Theories of Inalienable Rights

In contrast to those consistent natural law theories are the positivist views of

rights, which have "a broad commitment to personal autonomy that is contrary to the

existence of such a law of nature."[142] Hobbes' view of inalienable rights abandoned the

classical natural law theory of justice, and instead focused on the power of politics.[143]

Hobbes' theory of rights is premised on the belief that a natural state of war exists

between all men.[144] In Hobbes' view, the inalienable rights of human beings are not self-

limited, but rather everyone has a right to everything:

> "[E]very one is governed by his own Reason; and there is nothing that he can
> make use of, that may not be a help unto him, in preserving his life against his
> enemyes; It followeth, that in such a condition, *every man has a Right to every*
> *thing; even to anothers body*."[145]

In order to get "themselves out from that miserable condition of "Warre"," the people

must surrender their power to a government "to keep them in awe, and tye them by feare

of punishment to the performance of their Covenants".[146] But this view is far from

complete. It suggests total autonomy within each person, and a sovereign with powers

that do not stop "much short of absolutism".[147]

This war-based theory is left in a perpetual state of tension, between a government

of absolute power and a citizen's inalienable right to everything, that Hobbes could not

---

[142] *Ibid* at 956.

[143] Gary Glenn, "Inalienable Rights And Positive Government In The Modern World" (1979) 41 J Politics 1057 at 1062-3. Thomas Hobbes, *Leviathan* (London: Cambridge University Press, 1904, 1651) Ch XIV at 86. [Hobbes, *Leviathan*]

[144] Hobbes, *Leviathan, ibid* at 87: "And because the condition of Man…is a condition of Warre of every one against every one…"

[145] *Ibid*. [Italics added for emphasis.]

[146] Ibid, Ch XVII at 115.

[147] Glenn, *supra* note 144, at 1066. At 1072: "Despite immense effort, Hobbes never succeeded in fully overcoming this tension between natural rights and justice. His doctrine moves from one horn of the dilemma to the other: from one intention to preserve individual rights against the attacks of other individuals, which necessitates a politically absolute sovereign, to the adamant insistence on the inalienable right of individuals not to give up the right to determine the means to their preservation, which makes absolutism impossible."

resolve: the "government may justly order the citizen to certain death, but the citizen cannot be morally obliged to obey."[148] "But the price of … disobedience is acknowledging that the individual and government are in a state of war."[149]

Certainly the classical theories of natural law were more noble minded and more consistent than what Hobbes proposed. "Whereas the classics taught men the more noble morality that it is better to suffer injustice than to do injustice," Hobbes theory of rights teaches that "when push comes to shove, it is better to be a tyrant than to be a slave."[150] The "low morality" of Hobbes' theory "is rooted in its appeal to the merely selfish which abolishes the grounds for nobility. Its morality consists in showing that selfishness rightly understood requires certain low but solid virtues."[151] And Hobbes did not even attempt to justify his theory of rights in law, but rather proposed that *rights and law are inconsistent with one another*.[152]

I have already shown that the United States was founded upon a theory of inalienable rights that are based upon the natural law. But it is easy to see that the creeping presence of positivism has upset the proper understanding of the origin and limits of natural human rights.

6.c. Fuller's Substitution of Materialism for Natural Law

Fuller displays a positivist streak by replacing antecedently fixed *telos* with those more materially centered and arbitrary norms of freedom and eunomics. I have just demonstrated that the positivistic notion of "freedom" is not a proper *telos* as it does not

---

[148] *Ibid* at 1067.
[149] *Ibid* at 1066.
[150] *Ibid* at 1075.
[151] *Ibid* at 1062 FN 8.
[152] Hobbes, *supra* note 144, at 86-7: "For though they that speak of this subject, use to confound Jus, and Lex, Right and Law; yet they ought to be distinguished; because Right, consisteth in liberty to do, or to forbeare; Whereas Law, determineth, and bindeth to one of them: so that Law, and Right, differ as much, as Obligation, and Liberty; which in one and the same matter are inconsistent."

permit a workable theory of conflicting rights. Yet Fuller defended positivist JS Mill's

statement on the preeminence of freedom over any government action that is not

preventing harm to others.[153] Fuller's natural law theory assumes this bias toward the

positivist fundamental premise of "freedom" axiomatically, rather than discovering goods

through reasoned judgment.[154]

This is similar to Fuller's derivation of his aforementioned "eunomics". Fuller

justifies "arranging the forms of [Mankind's] social life" according to eunomics on the

premise that we are limited "by scarcity" and are "compelled to order the resources

---

[153] Mill stated that, "the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others. His own good, either physical or moral, is not a sufficient warrant." John Stuart Mill, *On Liberty* (Boston: Ticknor & Fields, 1863) at 23.

James Fitzjames Stephen refuted Mill on this point, offering the example of taxes which are used for a public museum, and which are not fundamentally different from using taxes to support a church. James Fitzjames Stephen, "Liberty, Equality, Fraternity", (New York: Holt & Williams, 1873) at 16.

Fuller came to Mill's defense: "Certainly [Mill] did not intend to assert that the government should never use funds raised through taxes – enforced, if necessary, by coercive measures—to provide facilities that will enable the citizen to improve himself." Fuller, *Morality of Law supra* note 3, section I at 169.

Fuller was not channeling the deceased positivist philosopher, but rather claiming that Stephen had confused the issue by identifying law "with every conceivable government act." Fuller, *Morality of Law supra* note 3, section I at 169. But this is another inconsistency in Fuller's philosophy. Stephen's example gives: 1) An involuntary tax; 2) For the betterment of the citizens. Fuller says that, "law is the enterprise of subjecting human conduct to the governance of rules." Fuller, *Morality of Law supra* note 3, section I at 106. It is hard to see how a coercive tax scheme escapes Fuller's definition of law.

It is true that Stephen's example does not compel a man to visit the museum, but neither would that case compel a man to appreciate what he sees. Fuller should have defined "law" differently if he did not intend to have such a broad interpretation.

[154] See Fuller, *Morality of Law supra* note 3, section I at 168. Stephen's criticism of Mill seems to apply to Fuller's conjecture as well: "I find no proof and no attempt to give the proper and appropriate proof of it." Stephen, *supra* note 154 at 15. "His doctrine could have been proved if it had been true. It was not proved because it was not true." Stephen's thoughts on Mills over indulgence in freedom are shown by his introductory quote from Aeschylus' Prometheus Bound: "Sweet it is to pass all the length of life amid confident hopes, feeding the heart in glad festivities. But I shudder as I look on you, racked by infinite tortures. You have no fear of Zeus, Prometheus, *but in self-will you reverence mortals too much*." Aeschylus, *Prometheus Bound*, translated by Herbert Weir Smyth, (Cambridge, MA: Harvard University Press. 1926) at 535-542. [Italics added for emphasis.]

 It would be easy enough to refute Mill by providing the example of police officers finding a drunk or drug addict lying in the snow, and locking him up in rehab. But instead, Fuller discusses Mill's axiomatic statement in the context of, "The Problem of the Limits of Effective Legal Action". Fuller, *Morality of Law supra* note 3, section I at 168. One could argue that Fuller meant only for Stephen's refutation to serve as an example of over-reaching in the description of "legal action". But Mill's example is more likely being presented as a suitable premise; to argue otherwise would imply that Mill's proposed limit of legal action appear in that section by happenstance. Fuller is killing two birds with one stone: promoting the premise of freedom, as he argues that the counterexample of "law" that goes beyond Mill's arbitrary guideline is not "law".

available … with skill and prudence."[155] Of course these types of considerations make sense generally, considered in those appropriate times, as policy in the process of practical judgment. But eunomics makes no sense as a replacement of the *telos* of natural law. How can "scarcity" be considered before the subject matter has even been discerned?

It becomes clear that when the positivists try to remove the natural law as the system of external norms, there is left a void that needs to be filled by some orderly system. Fuller's positivistic view has latched onto these 'morality substitutes': freedom and materialism. Positivists seem to like "freedom" because it has a pleasant sound, and apparently everyone considers "freedom" to be outside of "morality", and so this won't be offensive to people who don't believe in "absolutes". Likewise, Fuller's materialist philosophy of "eunomics" is promoted as a suitable replacement for Aquinas' natural law premises because it is entirely "terrestrial",[156] and avoids the danger of a substantive natural law leading to a legal system based on religious orthodoxy.[157]   But of course these substitutes fail because they do not withstand those pitfalls of arbitrariness, relativism and naturalist fallacy.

7. Consistency In Natural Law

In this last section I will make a brief argument that the traditional concept of natural law is the best solution to the inherent vagueness of positive law. Complying with the natural law is the only way to ensure justice, and justice should always be the goal of

---

[155] Fuller, *Morality of Law supra* note 3, section I at 178.
[156] *Ibid* at 96.
[157] Fuller, "American Legal Philosophy", *supra* note 27, section II at 462-3.

the law. It is axiomatic to assert this goal of justice, but to contradict it puts one in the awkward position of arguing that courts should *not* be just.[158]

Similar to Gödel's methodology, I will use consistency as the determining factor. The main point is that the natural law provides consistency to positive law. A corollary to this is that we should do what we purport to be doing; i.e. we should be consistent. The law aspires to consistency, and "it is built into the very nature of the way we think about the law."[159] The courts present that truth and justice are the ultimate goals of the law:[160] The purpose of the rules of evidence is to ascertain truth and secure justice.[161] And legal holdings quite often formulate policy towards "the ends of justice".[162]

The whole system of law is premised upon the natural law, and the foundational documents even make explicit reference to the natural law, so I find it very interesting that I should need to defend either the validity or the existence of natural law. This is further evidence that the people of our age believe "that no appeal to man's nature, or to the nature of things, can ever be more than a cover for subjective preference…"[163] But if I am making an *appeal* to positivists, they should at least allow proper procedure to be granted: Because the natural law shaped the history and provided the foundation of our legal system, this should, at least, establish the *presumption* for natural law to exist, and shift the burden onto positivists to disprove this fact.

---

[158] Or a variation on this theme would be to say that 'justice', and its cousin 'truth', do not exist. The person who says this admits to nominalism. But even if one can bear that shame, one must admit further that the legal system *purports* to deal in justice and truth.

[159] Rogers and Molzon *supra* note 88, section III at 1000. At 1016: "[T]he very word "law" implies a requirement of consistency."

[160] Maine, *supra* note 28 at 72. See Wexler, *supra* note 28 at 86, (citing Aristotle's Rhetoric) "For that which is equitable seems to be just, and equity is justice that goes beyond the written law."

[161] US Fed R Evid 102: "Purpose: These rules should be construed so as to administer every proceeding fairly, eliminate unjustifiable expense and delay, and promote the development of evidence law, *to the end of ascertaining the truth and securing a just determination*." [Italics added for emphasis.]

[162] See for example, *Malloy v Hogan*, 378 US 1(1964) at 29.

[163] Fuller, *Morality Law, supra* note 3, section I at 101.

Another related, though perhaps more esoteric point, is that my argument might appear to be tautologous. I am arguing in support of natural law by showing how it is consistent with the procedures and policies of the common law, which were crafted by people who believed that natural law existed. Skeptics might allow this history, but persist in their belief that this doesn't prove anything beyond the ardent desires of our forebears. I would answer that: this skeptical case would lead to the conclusion that the law is nothing more than an elaborate pretence; and that nothing can convince a solipsist of anything.[164]

7.a. Natural Law is not Relativist; Truth and Justice are Consistent

Perhaps the most obvious statement that can be made is that a relativist legal system is not consistent. This is self-evident. Looking back to the argument concerning morality, M-2 is the relativist morality, which I said was not suitable for natural law *because* it is inconsistent. Note that this is not a circular argument: I am using a standard of consistency. Natural law is not relativist because natural law is consistent.[165] If the natural law is used to cure the vagueness of language inherent in the positive law, how could a relativist version of natural law provide a solution? By its own terms, the relativist version of natural law would provide one solution on a given occasion, and another solution at a different time. How would that external morality be useful?

---

[164] See Russell, "Vagueness" *supra* note 68, section II at 92: "If you are willing to believe that nothing exists except what you directly experience, no other person can prove that you are wrong, and probably no valid arguments exist against your view."

[165] George W. Constable, "Who Can Determine What The Natural Law Is?" (1962) 7 Nat LF 54 at 59: "All understand that traditionally natural law, as the antithesis of ethical relativism, claims to lay down certain general rules of conduct that supposedly apply to all men, at all times, in all places." This statement is slightly erroneous because it gives the mistaken impression that natural law is a "code of rules", which is not the case because the natural law is unwritten. See Crabb, "Airing A Couple Of Myths About Natural Law" (1963-1964) 39 Notre Dame L Rev 137 at 144.

In a similar sense, the concepts of truth and justice are founded on consistency. For example, US Federal Rules of Evidence permit a witness' prior out-of-court statements, to show either that the witness' current testimony is inconsistent, or to rebut charges of the former.[166] The obvious reason for this is the basic logical premise of non-contradiction: true statements do not contradict one another. A witness who contradicts himself has uttered a falsehood at some juncture.

Similarly, the law on perjury shows that the positive law presents reality as being objectively true, and provably so.[167] If all truth were relative, then how could the law say that a person knew the truth and testified to its opposite? The accused could always offer a defense that he understood the truth *differently*. Moreover, the objectivity of truth is not limited to the court's pronouncement on what is true, because if that were the case, a person could never perjure himself *until after* the court had ruled on the truth of a statement; i.e. a person would only be guilty of perjury retroactively.

We also conceive of justice as being consistent.[168] The historical practice of *stare decisis*, or following precedent, is premised on the idea that consistent judgments are just, or at least have a greater certainty of justice.[169] This idea of consistency in legal holdings

---

[166] US Fed R Evid 801 d(1).

[167] California Penal Code § 118. (a) Every person who … willfully and contrary to the oath, states as true any material matter *which he or she knows to be false* … is guilty of perjury.

[168] See Lon Fuller, *Legal Fictions*, (Stanford: Stanford University Press, 1967) at 128: "All theories of law have this in common, that they attribute "law" to one source … and thus introduce a unity into our conception of law. But even when one does not does not subscribe to any particular theory of the "nature of law", one is apt, consciously or unconsciously, to embrace what Ehrlich calls the "fiction of the unity of the law."" Manderson, *supra* note 1, section I at 249, note 25, says that "Fuller finds the idea, even as fiction, a useful means of describing reality."

[169] Christopher Peters, "Foolish Consistency: On Equality, Integrity, and Justice in Stare Decisis"(1996) 105 Yale LJ 2031, 2037. "[S]tare decisis is justified because, and only to the extent that, it serves the interests of justice in a general sense. Consequentialist theories acknowledge that *stare decisis must always be tested for how well it serves the ultimate end of justice* to determine whether it has value in any given case." [Italics added for emphasis] I do not wish to debate the particulars of this point, but only offer it to show that the law presents itself as being consistent.

is very similar to the correspondence theory of truth, which "has it that a proposition is true when it corresponds to the facts; the relation here is between propositions and the way things are in the world."[170]

<u>7.b. Legal Procedure to Ensure Consistency</u>

Of Fuller's eight procedural properties of law, three of them speak about some form of consistency:[171] "the duties imposed by the rules must not conflict"; "laws should not be changed too frequently"; and, "there must be a congruence between the rules as formulated and their implementation". I have already shown how conflicts in law are resolved by the logical principle of non-contradiction, which is inherent in legal thinking.

The inner morality of law "demands that laws should not be changed too frequently", but this principle is probably the least suited to formalization.[172] Fuller says that "there is a close affinity between the harms" resulting from laws that are changed too frequently and *ex post facto* laws; although the latter are probably more universally recognized as being unjust.[173] James Madison, in his defense of the Constitutional prohibition of *ex post facto* laws, "used language more apt for describing the evil of frequent change."[174]

See also Sarah Brosnan & Frans de Waal, "Monkeys reject unequal pay" (2003) 425 Nature 297: "Although there exists substantial cultural variation in its particulars, this 'sense of fairness' is probably a human universal …. Many highly cooperative nonhuman species seem guided by a set of expectations about the outcome of cooperation and the division of resources. Here we demonstrate that a nonhuman primate, the brown capuchin monkey…, responds negatively to unequal reward distribution in exchanges with a human experimenter."

[170] Grayling, *supra* note 31, section IIIa at 126.

[171] Fuller, *Morality of Law, supra* note 3, section I at 63-4, 79-91.

[172] *Ibid* at 79.

[173] *Ibid* at 80.

[174] *Ibid* citing The Federalist, No 44.

Consistency between official action and the declared rule follows as a corollary of the law's consistency, so it is understandable that there are a variety of procedural devices to ensure this consistency:

> "We may count here most of the elements of "*procedural due process*," such as the *right to representation* by counsel and the *right of cross-examining adverse witnesses*. We may also include ... *habeas corpus*, and the *right to appeal* an adverse decision to a higher tribunal. Even the question of "*standing*" to raise constitutional issues is relevant in this connection; haphazard and fluctuating principles concerning this matter can produce a broken and arbitrary pattern of correspondence between the Constitution and its realization in practice."[175]

Certainly Fuller does not object to upholding the pre-eminence of the Constitution and its power to declare void any acts that are contradictory, or repugnant, to its articles and amendments. But as I explained above, this is only a formalized understanding of the operation of natural law. In this respect, the natural law functions as a *process* rather than a substantive code, and the importance of *the philosophy behind the natural law* is revealed. Although it is unwritten, "a true application of natural law principles", on occasion, will "result in a destruction of the positive law."[176] Fuller says that his view of natural law is procedural, but one is left to wonder whether Fuller's natural law system would "destroy" *any* rule in a like manner. This difference lies in Fuller's omission of the Thomistic derivation of the fundamental principles, and the process by which the natural human *telos* can help "discern the acts which are really useful to our species and which fall within the order of the ends, from irrational deviations…"[177]

---

[175] Fuller, *Morality of Law, supra* note 3, section I at 81.

[176] Crabb, *supra* note 166 at 148.

[177] Villey, Michel, "Epitome Of Classical Natural Law" Translated by Guillaume Voilley (2000) 9 Griffith L Rev 74 at 95. "It belongs to us to discern the acts which are really useful to our species and which fall within the order of the ends, from irrational deviations, the pursuit of illusory goals, lost acts, doomed impasses. This is how we frame our moral science: for, acts without final causes, acts which we cannot make reasonable by relating them to ultimate ends, are faults for us, whereas there is virtue in following the reasonable order of which nature spontaneously offers us examples."

7.c. Substantive Natural Law and Purpose

The philosophy underlying the law is an essential ingredient towards meeting the goals of the legal system.[178] Our legal philosophy helps us discover the *substantive aims* of law: the external morality of law that is not captured by the positive law, and which give the law its purpose.[179] I have already demonstrated the goal of consistency in law. It stands to reason that *the most consistent philosophy* would be most effective in engendering those same qualities to the law. I submit that most consistent philosophy is Aquinas' Philosophy *Summa Theologica*: "No other construct of natural law approaches the scholastics in terms of age, tradition, discipline, consistency, or sheer quantity of adherents."[180]

The consistency of natural law comes from its source and subject matter. Using "man's innate rationality" as the source of natural law adds to the law's consistency because it is an *objective* measure of the positive law's validity.[181] The subject matter of the natural law is man's nature, and this adds to the law's consistency inasmuch as man himself is immutable.[182]

---

[178] "Everyone has a "god," an ultimate whose word is final. *This entity declares various "truths", which become the foundation, the premises, of one's legal philosophy*. Hence, all legal systems have a common structure. At the apex are the assumptions and basic values, which are, as it were, accepted on faith. From these are derived moral norms -and ethical principles, and the law reflects this morality. For all law involves the imposition of someone's morality upon others. This, I submit, is how it works in every legal system and why it is absolutely crucial that the presuppositions of a legal order be identified." Edward J Murphy, "The Sign of the Cross and Jurisprudence" (1993-1994) 69 Notre Dame L Rev 1285 at 1289.

[179] Fuller, *Morality of Law, supra* note 3, section I at 96-7.

[180] Crabb, *supra* note 166 at 141.

[181] *Ibid*: "At this stage, the explanation will also offer *the basic linkage conferring a unity on all the natural law concepts as opposed to positivism*. This unity derives from the metaphysical element which they ascribe to the essential nature of law. This element is *something outside of man's control* or creation, inhering in his nature, which functions both as a generator of the system of positive law and as a measure of its validity. On such a premise, it is immaterial where this element itself derives. If, for example, natural law is to be explained as a function of man's innate rationality, it matters not whether one chooses to ascribe this rationality to the deliberate design of a divine creator, or to some kind of a mindless operation of the chemistry of the body, or to any other extra-human cause."

[182] *Ibid* at 145.

Fuller's limited view of natural law as mere procedure renders it inconsistent. If the meaning of the rule is bound up in its purpose, how can the purpose of the rule be discerned from a procedural view of natural law?[183] Ultimately, those substantive aims that are imparted to the law from its underlying philosophy are either based in man's immutable nature; or they are theories that can be altered to suit present circumstances, as long as internal procedures are followed.[184] But it is only the former view that is consistent with what the law purports to be.

The rights of citizens guaranteed by the Constitution are also perceived to be unchangeable, and citizens are encouraged to believe this by the document and the history of its interpretation.[185] But as I have already shown: a right that is given by the positive law can also be taken by the same means. It is only a substantive natural law that will withstand any intrusion.

8. Conclusion

I have shown that the classical natural law theory is analogous to Gödel's philosophical view because both law and natural numbers depend upon abstract concepts to prove their own consistency. Fuller showed that positive law vagueness necessitates an external morality in order for judges to make decisions about the meanings of laws. But Fuller's natural law theory does not account for how this external morality was discovered, and doesn't even acknowledge a higher order.

---

[183] Fuller, "American Legal Philosophy", *supra* note 27, section II at 470. "[T]he meaning of a legal rule lies in a purpose, or more commonly, in a congeries of purposes."
[184] Fuller, *Morality of Law, supra* note 3, section I at 114-5.
[185] See, e.g. US Constitution, 9th Amendment: "The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people." See *Marbury v Madison*, 1 Cranch 137, 163, 2 L.Ed. 60 (1803): "The government of the United States has been emphatically termed a government of laws, and not of men. It will certainly cease to deserve this high appellation, if the laws furnish no remedy for the violation of a vested legal right".

Fuller's natural law is also quite different from Gödel's philosophy because Fuller's morality is relativist, whereas those analogous terms in Gödel's are immutable. On this point the classical natural law view comports more closely with Gödel.

Without proving that the psychological view was untrue, Gödel reasoned that this understanding of mathematical knowledge is meaningless. In a similar way, Fuller's instrumentalist understanding of natural law rendered it meaningless as a means of critique. Once again, the classical natural law view conforms with Gödel's understanding, and I showed how practical reason could objectively determine whether a law was iniquitous.

Different theories of natural law suffer from a number of logical flaws, including the naturalist fallacy, relativism or arbitrariness. Aquinas' theory of natural law avoids these problems, but Fuller's theory does not.

Finally, I talked about how consistency is a basic premise of Gödel's formal logic systems and also in the law. I showed the many ways that the law presents itself as being consistent, and I proposed that the law should do what it purports to do. I then showed that the natural law was necessary to provide this consistency.

"Till at last the child's mind is these suggestions, and the sum of the suggestions is the child's mind. And not the child's mind only. The adult's mind too--all his life long. The mind that judges and desires and decides--made up of these suggestions. But all these suggestions are our suggestions!...Suggestions from the State."
<div align="right">--Aldous Huxley, *Brave New World*[1]</div>

If you want a picture of the future, imagine a boot stamping on a human face -- for ever.
<div align="right">--George Orwell, *1984*[2]</div>

Chapter V: Conclusion

My main conclusions are that Gödel's Theorem, (by its own terms), is not applicable to the legal system, but that the Incompleteness Theorem and Fuller's natural law theory both showed that positivism was not a useful philosophy. Fuller's natural law showed that the positive law is not separable from morals. I gave examples of how positivism distorts the understanding of law, and also how it eliminates the necessary structure and restraint provided by *substantive* natural law.

1. Gödel as Analogy

Writing this paper has given me a clearer understanding of the meaning of positivism and the natural law, and has reshaped my own philosophical view. Initially, I approached this topic from the positivist angle. My thoughts were that lawyers could create some sort of metalanguage, like that of a formal system, and that this symbolic language could be incorporated into legal procedure. I imagined that all of law could be fixed by eliminating the errors of language.

While there may be some usefulness to mapping *ratio decidendi* in formal language, Fuller's writings convinced me that systems of judgment are dependent upon moral values to assess the law. Judges must always know the moral purpose of a

---

[1] Aldous Huxley, *Brave New World*, (New York: Haper Collins, 1932, 2010) at 33.
[2] Orwell, George, *1984*, (New York: Penguin, 1961, 1949) at 267.

rule. A case is only easy for a judge to decide when the moral purpose of the law is

obvious.[3] The opposite conclusion, that the law has no need for morals, is an illusion.

I began my work on this thesis with the assumption that Gödel was applicable

to legal systems, but the wide variety of differing legal opinions on the subject made

it difficult to reach any conclusions. It was only after I read a short essay by Franzén,

that I realized why so many lawyers had such radically different conclusions: because

"the theorem doesn't really apply in these contexts."[4] As I have shown, Gödel's work

is useful as an analogy, but this requires an understanding of the *philosophy* that

underlies the Theorem. Saying that 'truth is greater than proof' implies that

positivism cannot make a complete account for what we know or how we reason.

This limit of a system's ability to prove truth can be seen in analogy to law by

the philosophical example of substance and accidents. The goal of law is the

substance of justice. Positive laws can be seen as mere accidents of justice.

I showed that there is a source of decision-making that is eternally located outside the

system. while those involving natural numbers are incomplete and cannot prove their

---

[3] Fuller, "Positivism and Fidelity to Law" *supra* note 20, section II at 663. "If a statute seems to have a kind of "core meaning" that we can apply without a too precise inquiry into its exact purpose, this is because we can see that, however one might formulate the precise objective of the statute, *this* case would still come within it."

[4] "Many nonmathematicians at once find [Gödel's incompleteness theorem] fascinating and are ready to apply what they take to be the incompleteness theorem in many different contexts. The task of the expositor becomes, rather, to dampen their spirits by explaining that the theorem doesn't really apply in these contexts. But as experience shows, even the most determined wet blanket cannot prevent people from appealing to the incompleteness theorem in contexts where its relevance is at best a matter of analogy or metaphor." Torkel Franzén, "The Popular Impact of Gödel's Incompleteness Theorem" (2006) 53 Notices of the American Math Society 440. [Franzén , "Popular Impact"]

own consistency.[5] This gets at the very nature and purpose of *counting* as opposed to that of *measuring*; i.e. numerosity as it differs from ratio:

> "For "measure" refers to the substance of the thing limited by *its* principles, "*number*" *refers to the species*…whereby it is distinguished; For a thing…is distinct by its form…"[6]

So in order to count things, it is necessary *to discern their form*, and to make a determination as to which species they are a part. Anytime I say: "There are X number of Ys", I am making a *judgment* as to what a Y is; I am defining a set. For example, let's imagine there are three ladies in a room. One of them is pregnant. How many people are in the room? The trouble in answering this question stems from the vagueness of the word "people".

This of course resonated very strongly with Fuller's criticism of positivism, and my thesis began to take shape.

2. Natural Law & Positivism

Looking deeply into the Hart/Fuller debate, I began to see positivism's harmful influence on the law, and how it affected my own thinking. I was quite startled to find that even Fuller's philosophy had been distorted by positivism, most notably in his refusal to include any substantive portion to his theory of natural law.

If Fuller is correct that morality is inseparable from law, then the question becomes: what morals are going to be imposed? To my mind, it seems most appropriate and fair that the morality of law should be determined from *practical*

---

[5] Franzén, *Gödel's Theorem*, *supra* note 12, section I at 25, 127.
[6] Aquinas, *Summa*, *supra* note 95, section II at I, Q 45 A 7.

reason, but the positivists have eliminated the natural law theory from legal reasoning. I believe that this has had disastrous effects.

I would like to spend the remainder of this conclusion pointing out some of the harmful effects that positivism has had upon the law, most notably: a *default morality* that is contemptuous towards traditional morality; the state has become the source of morality; and a society that is spiraling down into slavery and war.

3. Default Morality

I have written that it is the 'proto-formalist' nature of positivism to deny the morality of law outside of the formal content.[7] This formalism tends to operate *against* traditional notions of morality. The attempt to separate "organized religions" from law results in a 'default morality' that is not based in practical reason, and which renders the system agnostic or atheistic.

Fuller said that the positivists were motivated to keep law separate from morality because they believed that a purposeful interpretation of law would lead to an oppressive religious regime.[8] Positivists felt that identifying the law with force would preserve its neutrality.[9] Fuller himself feared this "all embracing orthodoxy", and I think it is this fear of being perceived as a moral dogmatist that kept Fuller from providing a more rational model of natural law.[10]

The most obvious application of separating "morality" from law is the familiar slogan of "separation of church and state", but upon close examination, this

---

[7] See Tamanaha, *supra* note 10, section IV, at 477, 485.
[8] Fuller, "Positivism and Fidelity to Law" *supra* note 20, section II at 670-1.
[9] Fuller, "American Legal Philosophy", *supra* note 27, section II at 462-3.
[10] *Ibid.*

idea is also philosophically incomplete. Within the positivist framework, it is very easy to recognize a formally professed belief, while the opposite passes without notice. Traditional morality has been encoded into religious books and preached for centuries, and so it stands out: traditional morality is cited by "chapter and verse". But what about messages that stand in opposition to traditional morality? Those messages are not from organized religions, and so they are not recognized as "morality". Thus, there is no legal framework within "separating church and state" wherein one can object to ideas that work in opposition to traditional morals. Under this paradigm, the law has seemingly nothing to say about them. And yet, a person with a firm conviction that there is no God can be just as zealous and dogmatic as one who professes the belief of an organized religion.

The philosophical framework separating church and state is incomplete. It is an illusion to use the law to prevent people from invoking God in public and claim that it is a separation of morals from the law. What has really happened is that *there is a new moral value*, which is that "God is not to be invoked". It is not the separation of church and state, but only the separation of God and state. The "church" that is allowed to proliferate in this positivist system is the church of atheism. Any morality may be preached as long as it is not *recognized* as "morality". But the result is the *default morality*: It is not the product of practical reason, but either chance, or subtle subversion.

<u>4. Popular Morality</u>

Without natural law, the state has become the source of morality. Even though modern states may not rely on the traditional natural law as a means of objective reckoning, there is nothing preventing lawmakers from pretending that they are working towards common ends, which are beneficial to all.[11] But removing the traditional notion that proper ends can be decided through practical reason has also eliminated restraint on the law, and replaced objective reason with the arbitrary whims of the state. The rationally derived principles of Aquinas placed the preservation of human life as its highest precept[12], but the modern state distorts this view: using men as a *means* of achieving what the state pretends to be "the good of all", rather than regarding each person as an "end-in-himself".[13]

We can examine the philosophical bankruptcy of this positivist attempt to separate church and state through the lens of the *Lemon* Test, where the court said that government action must have a "secular legislative purpose"[14]; or the similar pronouncement in *Employment Division v Smith*, which upheld "neutral laws of general applicability".[15] In *Smith* the court upheld a state decision to deny

---

[11] See Fuller Forms and Limits, note 44, section IV at 361-2: "In an organization dominated by the principle of common ends, nothing is easier than to slip into the assumption that the other fellow wants what we want, or that he will want the same thing when his perception has developed to the level of our own."

[12] Aquinas, *Summa Theologica, supra* note 100, section IIIa at I-II, Q 94 A 2

[13] See Fuller Forms and limits at 362.

[14] *Lemon v Kurtzman*, [1971] 403 US 602, 91 S Ct 2105, 29 L Ed 2d 745, [*Lemon*] established the "Lemon Test" for determining whether a government action had violated the 1st Amendment protection against Congressional action respecting an establishment: 1. That government action must have a secular purpose; 2. That government action must not have the primary effect of advancing or inhibiting religion; 3. That the government action must not result in excessive government entanglement.

[15] *Employment Division v Smith*, [1990] 494 US 872, 110 S Ct 1595, 108 L Ed 2d 876. [*Employment Division*]

unemployment benefits to a drug counselor who had been fired for eating peyote, as part of a Native American religious ceremony. But the court of *City Of Hialeah,* using the same test, struck down a law that forbid the Santaria practice of sacrificing animals.[16] Why is sacrificing an animal worthy of religious protection while ingesting peyote is not?[17] A positivist can dance all day with that question, but he will never be able to extract a rule free of moral presumption.

Positivists would have us believe that we can only reason as far as that which can be empirically proven, but Fuller showed that there is always going to be morality infused into the law. The framework of legal logic proves this out: "Though law is logical and rational in form, in substance it is evaluative, *the result of intentional value choices*."[18] Judgment, as value choices, is incorporated into every aspect of the law, from the choice of individual words, like "marriage", on up to the selection of the docket for the Supreme Court.

We may claim to have a separation of church and state, but those morals that are chosen by the state are, de facto, the morals of the *state* religion.[19] Speech is limited when it encroaches upon those things held holy by the state. The authority of

---

[16] *Church Of Lukumi Babalu Aye v City Of Hialeah*, [1993] 508 US 520, 113 S Ct 2217, 124 L Ed 2d 472. [*Hialeah*]

[17] "[I]f we peruse the most recent 1,000 cases on free exercise of religion under the first amendment, for example, I would not be surprised if at the very least 999 of them are Godelian undecidables." D'Amato, "Pragmatic Indeterminacy", *supra* note 70, section III at 173, FN 80.

[18] Wilson, *supra* note 50, section IV at 834. [Italicized for emphasis.]

[19] It is reasonable to believe that these societal revisions are not happening by chance, but are part of a purposeful subversion of the traditional order. For the past 150 years, there has been a Marxist revision of the Western intellectual tradition. Townshend, *supra* note 12, section IIIa at 64-5 In keeping with the positivist replacement of abstract concepts with materialist philosophy, the Marxist critique is an organized effort to supplant existing institutions, that promote the idea of life after death, with a more worldly and nihilist philosophy. Randall Kelso, "Godel, Escher, Bach: More Darkness, Or Day For Night", Book Review of *Gödel, Escher, Bach* by Douglas E. Hofstadter, (1981) 1981 Wis L Rev 822.

the state does not come down from God, but rather from those in power. And the state religion makes their secrets holy. This is the religion of positivism.

5. Sliding Into Nothingness

The harm of the materialistic religion of positivism does not have to be imagined, and its effects can be witnessed everywhere. St Augustine's book, City of God, showed how a society that rejected the natural law would spiral down into slavery and war.[20] Augustine was writing about the fall of Rome, but a similar spiral can be seen in our own present society. Mankind was not meant to rule over rational creatures, and so it is through the loss of reason that our society is falling into decline.[21]

The past decade has seen a rapid decline of freedom in the United States, and the country has entered into a state of virtually constant war. Beginning with the so-called "PATRIOT Act", there has been a steady encroachment upon civil liberties.[22] The PATRIOT Act authorizes searches without any showing of probable cause and is an illegal intrusion upon the right to be secure in our persons.[23] More recently, the Congress passed the National Defense Authorization Act, (NDAA), which authorizes the army to arrest and *indefinitely detain* any citizen, without a right to trial.[24]

---

[20] Augustine, *City of God*, Trans Marcus Dods, in *A Select Library of the Nicene and Post-Nicene Fathers of the Christian Church*, Ed Philip Schaff, First Series, vol 2: St. Augustine's City of God and Christian Doctrine, (New York: Christian Literature Company, 1890-1900), [Augustine, *City of God*].
[21] Augustine, *City of God*, Bk 19, Ch 15.
[22] "Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001", [2001] 115 Stat 272.
[23] *Ibid* at § 215.
[24] See "National Defense Authorization Act for Fiscal Year 2012"; HR 1540, (2012); § 1021, 1022.

A decision issued in January 2013 from a federal district court upheld the

federal government's refusal to offer any justification for their *extrajudicial killing* of

a US Citizen by a targeted drone strike.[25] The "Justice" Department refused to release

documents that might explain why the government should be allowed to kill US

citizens, apart from any battlefield, and without any right to trial. Judge Colleen

McMahon upheld this refusal, and compared the recently grown thicket of conflicting

legislation to a "Catch-22":

> "I find myself stuck in a paradoxical situation in which I cannot solve a
> problem because of contradictory constraints and rules – a veritable Catch-22.
> I can find no way around the ticket of laws and precedents that effectively
> allow the Executive Branch of our Government to proclaim as perfectly
> lawful certain actions that seem on their face incompatible with our
> Constitution and laws…"[26]

It might help Justice McMahon to understand what a "Catch-22" actually is.

The term comes from a book by Joseph Heller, and refers to a labyrinthine military

code that prevented a pilot from avoiding further combat missions.[27] The hero of the

book, Yossarian, goes to Doc Daneeka and pleads with the doctor to ground him for a

psychiatric illness. Daneeka admits that there is a rule, which says that he has to

'ground' anyone who is crazy, but he can't rely upon a crazy person's assessment of

their own craziness. If a pilot asks for an assessment, then Daneeka *can't* ground him:

> "'You mean there's a catch?'
> 'Sure there's a catch,' Doc Daneeka replied. 'Catch-22. Anyone who
> wants to get out of combat duty isn't really crazy.'
> There was only one catch and that was Catch-22, which specified that
> a concern for one's own safety in the face of dangers that were real and

---

[25] *New York Times Co et al v US Dept Just*, [2013] 11 Civ 9336, FDSNY. [*New York Times*]
[26] *Ibid* at page 3.
[27] Joseph Heller, *Catch-22* (New York: Simon and Schuster, 1961, 2011).

immediate was the process of a rational mind… All he had to do was ask; and as soon as he did, he would no longer be crazy and would have to fly more missions… If he flew them he was crazy and didn't have to; but if he didn't want to he was sane and had to. Yossarian was moved very deeply by the absolute simplicity of this clause of Catch-22 and let out a respectful whistle.
'That's some catch, that Catch-22,' he observed."[28]

A Catch-22 is an *inescapable paradox*, but in the case regarding the NDAA there is no countervailing principle preventing Judge McMahon from following the Constitution. McMahon even acknowledges the NDAA to be "incompatible with our Constitution..."[29] The United States has a hierarchy of laws, and laws that conflict with the Constitution are not laws. Judge McMahon lacks a basic understanding of logic and of Constitutional law. Her mind is under the fog of positivism.[30]

Illegal spying and the targeted killing of US citizens is bound to increase now that the US Congress has voted to put 30,000 drones over the United States.[31] Not only does the United States make war upon its own citizens, but upon the world. Since 2001, the United States has attacked Afghanistan, Iraq, Libya, Pakistan, and Syria.[32] All of these wars are illegal, and made under false pretenses.[33] The

---

[28] *Ibid* at 56-57.

[29] [*New York Times*] at 3.

[30] This opinion has recently been reversed on appeal. See *New York Times Co v US*, [2014] 13-422, 2d Cir. The appellate court cited a DOJ white paper, (the name and number of which was redacted), and claimed that this document "explains why targeted killings do not violate … the Fourth and Fifth Amendments to the Constitution…" The appellate decision itself is redacted, including part 3 of its conclusion. The DOJ white paper must be disclosed, but redacted to show only its legal reasoning.

[31] H.R. 658 (112th): FAA Modernization and Reform Act of 2012. See Washington Times, February 7, 2012: "Drones over U.S. get OK by Congress".

[32] The United States continues to make drone strikes upon Pakistan without any declaration of war. See e.g. NY Times March 22, 2013: "Four people have been killed in northwestern Pakistan in an American drone attack on a vehicle…"
It is also known that the US Central Intelligence Agency is aiding rebels in Syria; See NY Times June 21, 2012: "A small number of C.I.A. officers are operating secretly in southern Turkey, helping allies decide which Syrian opposition fighters across the border will receive arms to fight the Syrian government…" The Wall Street Journal (March 23, 2012) has also reported that the CIA is

government no longer follows the Constitutional dictate that Congress shall have the power to declare war.[34] Instead, the President exercises this authority upon his own judgment.[35]

We still have elections, but we are given the false choice between the chosen parties of the state, promoted by the six corporations that control 90% of the media.[36] Elections are a choice between *Brave New World* and *1984*, voting on machines that are easily rigged, and don't even create paper ballots that can be recounted.[37]

---

helping the Syrian rebels with military intelligence. The US has threatened to begin bombing Syria because that country's leadership supposedly used poison gas on its own citizens. That threat comes before any conclusive findings by UN inspectors, and despite a prior the statements by a UN commission leader that the Syrian rebels, had used Sarin nerve gas. BBC News (6 May 2013)

[33] "[A] senior general relayed some disturbing news: "We're going to attack Iraq…"
"But why?" I asked…. "Did they discover a linkage [to 9/11]?"
"No, nothing like that…" …
When I returned to the Pentagon six weeks later,… I asked the same general if there was still a plan to go after Iraq.
"Oh, it's worse than that," he said, and held up a memo on his desk. "Here's the paper from the office of the Secretary of Defense outlining the strategy. We're going to take out seven countries in five years!" And he named them, starting with Iraq and Syria and ending with Iran. It was straight out of Paul Wolfowitz's 1991 playbook, dressed up as the search for weapons of mass destruction and the global war on terror." Wesley Clark, *A Time to Lead* (New York: Palgrave Macmillian, 2007)
     As a signatory to the UN Charter, the United States is forbidden to use military force unless it is in self-defense, (Article 51); or it is authorized by the UN Security Council (Article 42). Afghanistan did not attack the United States and UN Resolutions 1368 and 1373 did not authorize the use of military force. The United States invaded Iraq under the false claim that Iraq had "weapons of mass destruction"; and neither would mere possession of such weapons permit the use of military force. In 2011, the United States bombed Libya without any provocation, and without any declaration of war. This is a violation of the "War Powers Resolution", 50 USC, Chapter 1541.

[34] *United States Constitution*, Article I, Sec 8.

[35] "It's long been established that Obama failed to secure a congressional declaration of war, as the constitution and Senator Obama's understanding of it dictated…" See: "How Obama Ignored Congress, and Misled America, on War in Libya" The Atlantic, September 13, 2012,

[36] "These 6 Corporations Control 90% Of The Media In America", Business Insider, June 14, 2012.

[37] "[T]housands of votes instantly disappearing from the electronic count of one candidate, or being added to the count of another, with no paper trail left behind…electronic voting machines whose programs can be breached and hacked … from thousands of miles away… new voting technology controlled largely by corporations with strong partisan ties? Not only can it all happen … there is a viable case to be made that it's already happened -- in both the decade before and the decade since Bush v. Gore." From: "Think the Florida Recount Was Bad? Just Wait Until November 6", The Atlantic, October 22, 2012. See also "How To Rig An Election", Harper's, November 2012.

The voting public gets its information from a media that now legally

disseminates government propaganda.[38] This means that the public consciousness is

shaped by what the average citizen believes to be real news events, but these "news

events" can be fables that were crafted for the purposes of mobilizing public support

for legislation or war.[39] The federal government could foment public support against

private gun ownership by inventing the drama of a mass shooting of school children.[40]

Or the government could gather public support for a more intrusive security state by

creating videos of a "terrorist bomb attack".[41] And this would all be entirely "legal".

Brave New World, *supra*, note 1, foretold a of dystopian future where people are literally created by the State, in test-tubes, and genetically modified to perform specific tasks. The children in that book are conditioned to desire the job and social life that the government has chosen for them. *1984, supra* note 2, tells about a dark future where the government uses propaganda, lies and torture to maintain its power over the population. The people are spied on by the State though their televisions. The State has created a language, Newspeak, that is designed to limit a person's ability to think. People daily participate in the "Two Minute Hate", where the television screen shows the face of a famous terrorist, and everyone is encouraged to express loathing for him.

[38] The 2013 NDAA (HR 4310, 112th) included Amendment 114 (Thornberry, TX), which amended the "United States Information and Educational Exchange Act of 1948 (known as the Smith-Mundt Act) and the Foreign Relations Authorization Act, Fiscal Years 1986 and 1987 to clarify the authorities of the Department of State and the Broadcasting Board of Governors to prepare, disseminate and use *public diplomacy information*". [Italicized for emphasis] Amendment 114 was previously known as HR 5736 (112th). The Smith-Mundt Act prevented the United States government from disseminating propaganda to US citizens.

[39] See Orwell, *1984*, *supra* note 2, at 34: "At this moment, for example, in 1984 (if it was 1984), Oceania was at war with Eurasia and in alliance with Eastasia. In no public or private utterance was it ever admitted that the three powers had at any time been grouped along different lines. Actually, as Winston well knew, it was only four years since Oceania had been at war with Eastasia and in alliance with Eurasia. But that was merely a piece of furtive knowledge which he happened to possess because his memory was not satisfactorily under control. Officially the change of partners had never happened. Oceania was at war with Eurasia: therefore Oceania had always been at war with Eurasia. The enemy of the moment always represented absolute evil, and it followed that any past or future agreement with him was impossible…"

[40] cf Fuller, Forms and Limits, note 44, section IV, at 362: "It is true that, like Tom Sawyer when he got himself out of a fence-painting job, we may persuade the other fellow he wants something that he really does not, *or like the modern advertiser we may elevate this persuasion to the level of a skillful manipulation of mass opinion*." [Italicized for emphasis]

[41] See e.g. "Terrorist Plots, Hatched by the F.B.I.", David K Shipler, NY Times, April 28, 2012: "But all these dramas were facilitated by the F.B.I., whose undercover agents and informers posed as terrorists offering a dummy missile, fake C-4 explosives, a disarmed suicide vest and rudimentary training. Suspects naïvely played their parts until they were arrested."

Amidst this brazen lawlessness, endless war, indefinite detention and extra-judicial killing of its own citizens, the silence of the media is deafening. When I inform people of the NDAA, and the elimination of the right of habeas corpus, they respond with blank stares.[42] Most of the population of the United States seems to be entirely ignorant of this fact.

The people have abandoned the natural law, and they have lost their sense of reason. The Republic of the United States is dying.

> "[A] republic cannot be administered without justice. Where, therefore, there is no true justice there can be no right... For the unjust inventions of men are neither to be considered nor spoken of as rights... Thus, where there is not true justice there can be no assemblage of men associated by a common acknowledgment of right, and therefore there can be no people ...; and if no people, then no [good] of the people, but only of some promiscuous multitude unworthy of the name of people..."[43]

6. Future Research

I have two useful endeavors in mind that might give a greater understanding to this topic. The first is to track the progression a given law by mapping out ratio decidendi in formal logic. I believe that would be helpful not only to demonstrate the weakness of the positivist philosophy, but I predict that the results of this sort of demonstration would only be understood or appreciated by a very small percentage of lawyers.

---

[42] *Ex Parte Tobias Watkins*, [1830] 28 US 193, 3 Pet 193, 7 L Ed 650, at 201-2: "No law of the United States prescribes the cases in which this great writ shall be issued, nor the power of the court over the party brought up by it. The term is used in the Constitution as one which was well understood, and the Judicial Act authorizes this Court and all the courts of the United States and the judges thereof to issue the writ "for the purpose of inquiring into the cause of commitment." *This general reference to a power which we are required to exercise, without any precise definition of that power,* imposes on us the necessity of making some inquiries into its use, according to that law which is in a considerable degree incorporated into our own. The writ of habeas corpus is a high prerogative writ, known to the common law, the great object of which is the liberation of those who may be imprisoned without sufficient cause."
[43] Augustine, *City of God*, *supra* note 11 at Bk 19, Ch 21.

Another relevant topic would be an exploration of the logical basis of our natural rights. I feel that arguments concerning human rights are too often focused on policy, rather than being grounded in the more substantive realm of natural law. By refocusing the debate, I predict that courts could avoid major blunders, such as declaring that corporations are constitutionally protected persons.

BIBLIOGRAPY

LEGISLATION

United States
United States Constitution, Article I, Sec 8.
United States Constitution, 5th Amendment
United States Constitution, 9th Amendment
United States Constitution, 14th Amendment
United States Declaration of Independence.
"National Defense Authorization Act for Fiscal Year 2012"; HR 1540, [2012].
"Uniting and Strengthening America by Providing Appropriate Tools Required to
       Intercept and Obstruct Terrorism Act of 2001", 115 Stat 272 (2001).
US HR 658 (112th): FAA Modernization and Reform Act of 2012.
UN Charter, Article 42, Article 51.
California Code of Civil Procedure § 335.
California Penal Code § 118.
California Penal Code § 245
California Vehicle Code § 23103.

JURISPRUDENCE

Canada
Ochymund v Barker [1744] 26 ER 15; 1 Atk 21.
R. v. Krieger, [2006] 2 S.C.R. 501, 2006 SCC 47.

United States
Al-Aulaqi v Obama, [2010] 727 F Supp 2d 1.
Church Of Lukumi Babalu Aye v City Of Hialeah, [1993] 508 US 520, 113 S Ct 2217.
Employment Division v Smith, [1990] 494 US 872, 110 S Ct 1595, 108 L Ed 2d 876.
Ex Parte Watkins, [1830] 28 US 193.
Georgia v Brailsford, [1794] 3 US 1.
Lemon v Kurtzman, [1971] 403 US 602, 91 S Ct 2105, 29 L Ed 2d 745.
Marbury v Madison, [1803] 1 Cranch 137, 163, 2 L.Ed. 60.
Malloy v. Hogan, [1964] 378 US 1.
Ochymund v Barker [1744] 26 ER 15; 1 Atk 21.
Owens v Owens, [1988] 100 NC 240, 6 SE 794.
New York Times Co et al v US Dept Just, [2013] 11 Civ 9336, FDSNY.
New York Times Co v US, [2014] 13-422, 2d Cir.
Riggs v Palmer, [1889] 115 NY 506, 22 NE 188.
Southern Pac. Co. v. Jensen, [1917] 244 U.S. 205, 222.

SECONDARY MATERIAL: MONOGRAPHS

Aeschylus, *Prometheus Bound*, translated by Herbert Weir Smyth, (Cambridge, MA:
      Harvard University Press. 1926)

Aquinas, St Thomas, *Summa Theologica*, trans Fathers of the English Dominican
 Province, (New York: Benzinger Bros, 1921).

Aristotle, *Metaphysics, Aristotle in 23 Volumes*, Vol 17, 18, trans Hugh Tredennick,
 (Cambridge, MA: Harvard University Press, 1933, 1989).

Aristotle, *Physics*, trans RP Hardie, (Oxford: Clarendon Press, 1930).

Aristotle, *Politics,* Aristotle in 23 Volumes, Vol 21, translated by H Rackham,
 (Cambridge, MA, Harvard University Press, 1944).

Augustine, *City of God*, Trans Marcus Dods, in *A Select Library of the Nicene and
 Post-Nicene Fathers of the Christian Church*, Ed Philip Schaff, First Series,
 vol 2: St. Augustine's City of God and Christian Doctrine, (New York:
 Christian Literature Company, 1890-1900).

Augustine, *On Free Choice of the Will*, trans Thomas Williams, (Indianapolis:
 Hackett Pub Co, 1993).

Berto, Francesco, *There's Something About Gödel: The Complete Guide To The
 Incompleteness Theorem*, (Oxford, UK: Wiley-Blackwell, 2009).

Blackstone, William, *Commentaries on the Laws of England*, (Philidelphia: Rees
 Welsh & Co, 1902).

Boolos, George, "Introductory note to 1951" in Solomon Feferman et al eds., *Kurt
 Gödel, Collected Works, Vol III*. (New York: Oxford University Press, 1995).

Casey, John, *The First Six Books of the Elements of Euclid*, (Dublin: Hodges, Figgis
 & Co, 1885).

Cicero, *Laws*, trans CD Yonge, (London: George Bell & Sons, 1878).

Clark, Wesley, *A Time to Lead*, (New York: Palgrave Macmillian, 2007).

Coffey, Peter, *Epistemology; or the Theory of Knowledge*, (London: Longmans,
 Green and Co, 1917).

Croke, J Lacy O'Byrne, *Logic*, (London: Robert Sutton, 1906).

Darwin, Charles, *On the Origin of Species by Means of Natural Selection, or the
 Preservation of Favoured Races in the Struggle for Life*, (New York:
 Appleton, 1875).

DeLong, Howard, *A Profile of Mathematical Logic*, (Mineola, NY: Dover, 1971).

Flew, Anthony, *A Dictionary of Philosophy*, (New York: St Martin's Press, 1984).

Finnis, John, *Natural Law and Natural Rights*, (New York: Oxford University Press,
 1980).

Franklin, James, "Aristotelian Realism", in *Philosophy Of Mathematics*, Andrew
 Irvine, ed (Oxford: Elsivier, 2008).

Franzén, Torkel, *Gödel's Theorem: An Incomplete Guide to Its Use and Abuse*,
 (Wellesley, MA: A K Peters, Ltd. 2005).

Fuller, Lon, *Legal Fictions*, (Stanford: Stanford University Press, 1967).

Fuller, Lon, *Morality of Law*, (New Haven: Yale University Press, 1964).

Gödel, K. 1972, "On an Extension of Finitary Mathematics Which Has Not Yet Been
 Used", in: *K. Gödel Collected Works*, vol. II, ed by S Feferman et al, Oxford
 University Press, New York-Oxford 1990.

Gödel, Kurt, "On Formally Undecidable Propositions of Principia Mathematica and Related Systems I", translated by Jean van Heijenoort, *Frege and Gödel: Two Fundamental Texts in Mathematical Logic* (Cambridge: Harvard University Press, 1970).

Gödel, Kurt, "Some Basic Theorems on the Foundations of Mathematics and Their Implications (1951)", in Solomon Feferman et al eds, *Kurt Gödel: Collected Works Vol III*, (New York: Oxford University Press, 1995).

Grayling, A C, *An Introduction to Philosophical Logic*, (Sussex: Harvester Press 1982).

Hart, HLA, *The Concept of Law* (Oxford: Clarendon Press, 1961).

Hayek, FA, *The Road to Serfdom*, (London: University of Chicago Press, 2007).

Heller, Joseph, *Catch-22*, (New York: Simon and Schuster, 1961, 2011).

Hilbert, David, "On the Infinite", translation by Jean van Heijenoort, *From Frege to Gödel: A Source Book in Mathematical Logic*, 1879-1931, (Cambridge: Harvard University Press, 1967).

Hobbes, Thomas, *Leviathan*, (London: Cambridge University Press, 1904, 1651).

Hume, David, *A Treatise of Human Nature*, L Selby-Bigge ed (Oxford: Clarendon Press, 1888).

Huxley, Aldous, *Brave New World*, (New York: Haper Collins, 1932, 2010).

Madison, James, "Memorial and Remonstrance Against Religious Assessments", (1785) in *Founding the Republic: A Documentary History*, ed by John J Patrick, (Westport, CT: Greenwood Press, 1995).

Maine, Henry James Sumner, *Ancient Law*, (London: John Murray, 1906).

Manderson, Desmond, *Songs Without Music: Aesthetic Dimensions of Law and Justice*, (Berkley: University of California Press, 2000).

McInerny, Ralph, *Ethica Thomistica*, (Washington: Catholic Univ Press, 1982, 1997).

Moore, GE, *Principia Ethica*, (Cambridge: Cambridge University Press, 1903, 1959).

Orwell, George, *1984*, (New York: Penguin, 1961, 1949).

Penrose, Roger, *Shadows of the Mind: A Search for the Missing Science of Consciousness*, (New York: Oxford University Press, USA, 1996).

Plato. *Republic, Plato in Twelve Volumes*, Vols. 5 & 6 translated by Paul Shorey. (Cambridge, MA: Harvard University Press, 1969).

Rommen, Heinrich, *The Natural Law: A Study in Legal and Social History and Philosophy*, translated by Thomas Hanley, (Indianapolis: Liberty Fund, 1998, 1946).

Russell, Bertrand and Whitehead, Alfred North, and, *Principia Mathematica*, Vol 1-3, (Cambridge: University Press, 1910-1913).

Spencer, Herbert "The Data of Ethics", in *The Principles of Ethics*, *Vol I* (New York: Appleton, 1898).

Wang, Hao, *A Logical Journey: From Gödel to Philosophy*, (Cambridge, MA: MIT Press, 1996).

Wild, John, *Plato's Modern Enemies and the Theory of Natural Law*, (Chicago: University of Chicago Press, 1953).

Yourgrau, Palle, *A World Without Time: The Forgotten Legacy of Godel and Einstein*, (New York: Basic Books, 2005).

SECONDARY MATERIAL: ARTICLES

Brewer, Scott, "Exemplary Reasoning: Semantics, Pragmatics, And The Rational Force Of Legal Argument By Analogy" (1995-1996), 109 Harv L Rev 923.

Brosnan, Sarah & de Waal, Frans, "Monkeys reject unequal pay", (2003) 425 Nature 297.

Brown, Brendan F, Natural Law and The Law-Making Function In American Jurisprudence 15 Notre Dame L. 9 (1939-40).

Brown, Mark, and Greenberg, Andrew, "On Formally Undecidable Propositions of Law: Legal Indeterminacy and the Implications of Metamathematics" (1992) 43 Hastings LJ 1439.

Constable, George W, "Who Can Determine What The Natural Law Is?", (1962) 7 Nat L F 54 (1962).

Crabb, John H, "Airing A Couple Of Myths About Natural Law", (1963-1964) 39 Notre Dame L Rev 137.

D'Amato, Anthony, "Lon Fuller And Substantive Natural Law", (1981) 26 Am J Juris 202.

D'Amato, Anthony, "Pragmatic Indeterminacy", 85 Nw UL Rev. 148 (1990-1991).

Drury, SB, "HLA Hart's Minimum Content Theory of Natural Law", (1981) 9 Political Theory 533.

Farago, John, "Intractable Cases: The Role of Uncertainty in the Concept of Law" (1980) 55 NYU L Rev 195.

Finnis, John "The "Natural Law Tradition"", 36 J Legal Educ 492 (1986).

Torkel Franzén, "The Popular Impact of Gödel's Incompleteness Theorem", (2006) 53 Notices of the American Mathematical Society 440, April 2006.

Fuller, Lon, "American Legal Philosophy At Mid-Century: A Review of Edwin W. Patterson's Jurisprudence, Men and Ideas of the Law", 6 J Legal Educ 457 (1953-1954).

Fuller, Lon, "American Legal Realism" (1934) 82 U PA L Rev 429.

Fuller, Lon, and Winston, Kenneth I, "The Forms and Limits of Adjudication", (1978) 92 Harv L Rev 353.

Fuller, Lon, "Human Purpose and Natural Law", (1956) 53 Jour of Phil 697.

Fuller, Lon, "Positivism and Fidelity to Law – A Reply to Professor Hart", (1957) 71 Harv L Rev 630.

Fuller, Lon, "Reason and Fiat in Case Law", (1945-46) 59 Harv L Rev 376.

Fuller, Lon, (1939-1940), "Williston On Contracts", 18 NC L Rev 1.

Geach, PT, "Good and Evil", 17 Analysis 33 (1956).

Glenn, Gary D, "Inalienable Rights And Positive Government In The Modern World", (1979) 41 Jour Pol 1057.

Guradze, Heinz, "The Epistemological Background Of Natural Law", (1951-1952) 27 Notre Dame L Rev 360.

Haines, Charles Grove, "The Law Of Nature In State And Federal Judicial Decisions" 25 Yale LJ 617 (1915-1916).

Hart, H L A, "Positivism And The Separation Of Law And Morals", (1957) 71 Harv L Rev 593.

Huhn, Wilson, "The Use and Limits of Syllogistic Reasoning in Briefing Cases", (2002) 42 Santa Clara L Rev 813.

Jacquette, Dale, "Psychologism the Philosophical Shibboleth", (1997) 30 Philosophy & Rhetoric 312.

Jamar, Steven D, "This Article Has No Footnotes n1 : An Essay On RFRA n2 and the Limits Of Logic in the Law" (1997) 27 Stetson L Rev 559.
Kelso, Randall, "Godel, Escher, Bach: More Darkness, Or Day For Night", (1981) 1981 Wis L Rev 822.

Kramer, Matthew, "Scrupulousness Without Scruples: A Critique Of Lon Fuller And His Defenders", 18 Oxford J. Legal Stud. 235 (1998).

Murphy, Edward J, "The Sign of the Cross and Jurisprudence", (1993-1994) 69 Notre Dame L Rev 1285.

Murawski, Roman, "Truth Vs. Provability – Philosophical And Historical Remarks", (2002) 10 Logic and Logical Philosophy 93.

Oakeshott, Michael, "The Vocabulary of a Modern European State", 23 Pol. Stud. 409, 412 (1975).

Penrose, Roger, "Beyond the Doubting of a Shadow: A Reply to Commentaries on Shadows of the Mind", (1996) Psyche Vol 2, No 23.

Peters, Christopher, "Foolish Consistency: On Equality, Integrity, and Justice in Stare Decisis" 105 Yale LJ 2031.

Piccinini, Gualtiero, "Computationalism in the Philosophy of Mind", (2009) Philosophy Compass, Vol 4, Issue 3.

Rogers, John M, and Robert E. Molzon, "Some Lessons About The Law From Self-Referential Problems In Mathematics" (1992) 90 Mich L Rev 992.

Russell, Bertand, "The Cult of Common Usage", 3 Brit J Phil Sci 303 (1953).

Russell, Bertand, "Vagueness", 1 Australasian J Phil 84 (1923).

Stern, Craig A & Jones, Gregory M, "The Coherence Of Natural Inalienable Rights", (2007-2008) 76 UMKC L Rev 939.

Tamanaha, Brian Z, "How An Instrumental View Of Law Corrodes The Rule Of Law", (2006-2007) 56 DePaul L Rev 469.

Teachout, Peter Read, "The Soul of the Fugue: An Essay on Reading Fuller", 70 Minn L Rev 1073 (1985-86).

Townsend, Mike, "Implications Of Foundational Crises In Mathematics: A Case Study In Interdisciplinary Legal Research" (1996) 71 Wash L Rev 51.

Villey, Michel, Epitome Of Classical Natural Law, (2000) Translated by Guillaume Voilley, 9 Griffith L Rev 74.

Weinrib, Ernest J, "Legal Formalism: On the Immanent Rationality of Law" (1988) 97 Yale Law Journal 949.

Wexler, Steve, "Aristotle, Anomaly and Legal Theory", (2011) 7 Int'l Zeitschrift 79.

Whitehead, Alfred North, "Remarks", 46 Phil Rev 178, (1937); Analysis Of Meaning, in *Essays In Science And Philosophy* (New York: Greenwood Press, 1947).