Legal Rules, Legal Reasoning, and Nonmonotonic Logic

by

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To Rich, because I started seriously doing philosophy in your class ten years ago and you've helped me every step of the way since.

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Chapter 1

Common Law Judicial Reasoning and Analogy: A Defense

1. Introduction

A major difference between common law jurisdictions such as the U.S. and Britain and civil law jurisdictions such as France and Germany is the role of past cases. In civil law jurisdictions a judge is free to ignore the results of past cases in reaching her decision, while a common law judge lacks this freedom. Common law jurisdictions treat past cases as precedent, which means that in at least some instances a past case compels a particular result in a current case. Various theories have arisen in attempts to precisely characterize the influence of precedent and explain how judges reason with precedent.[1]

This paper focuses on a prominent class of such theories, namely, the "rule-based" theories favored by Fredrick Schauer, Larry Alexander and Emily Sherwin.[2] These theorists characterize a particularly strong manner in which precedent could influence a reasoner, which they call "precedential constraint."[3] They argue that precedential constraint is essential to any common law/precedential

1 LARRY ALEXANDER & EMILY SHERWIN, DEMYSTIFYING LEGAL REASONING (2008) [hereinafter Alexander & Sherwin, *Demystifying*].

2 *See, e.g.*, Alexander & Sherwin, *Demystifying*, *supra* note 1; FREDERICK SCHAUER, PLAYING BY THE RULES: A PHILOSOPHICAL EXAMINATION OF RULE-BASED DECISIONS IN LIFE AND LAW (1991) [hereinafter Schauer, *Playing by the Rules*]; Larry Alexander, *Constrained by Precedent*, 63 S. CAL. L. REV. 1 (1989).

3 Frederick Schauer, *Precedent*, *in* ROUTLEDGE COMPANION TO PHILOSOPHY OF LAW 123, 130 (2012) [hereinafter Schauer, *Precedent*].

system of reasoning.[4] Further, they argue that precedential constraint is incompatible with an analogical account of how judges reason with precedent.[5]

In this paper I argue that even if we accept the rule theorists' characterization of precedential constraint and accept that it is an essential feature of judicial reasoning, we can still explain this with an analogical theory of common law reasoning. More specifically, I argue that analogical theories are no worse than rule-based ones when it comes to precedential constraint and are better when it comes to the judicial practice of distinguishing. Since rule-theorists have alleged no other deficiency of analogical theories, we can tentatively conclude that analogical theories are superior, because they are better than rule-based theories with respect to some judicial practices and no worse than rule theories with respect to other judicial practices.

2. Precedent and Theories of Common Law Judicial Reasoning[6]

In common law systems, precedent can influence judicial decisions in a number of ways. It can strengthen a judge's belief that the case should be decided one way. That is, a judge may (i) think that, ignoring past decisions, the plaintiff should prevail and (ii) ultimately decide for the plaintiff after this conviction is strengthened by reviewing past decisions. It can also determine how a judge decides a case that she would not otherwise know how to decide. For example, ignoring past decisions, a judge may have no idea whether she should decide the case for one party rather than the other until she consults precedent. Additionally, precedent can constrain the reasons for an outcome in addition to the outcome itself. For example, a judge can (i) think that, ignoring past decisions, a case should be

4 *Id.*

5 LARRY ALEXANDER & EMILY SHERWIN, DEMYSTIFYING LEGAL REASONING 31-104 (2008); Schauer, *Precedent*, *supra* note 3; Frederick Schauer, *Why Precedent in Law (and Elsewhere) Is Not Totally (or Even Substantially) About Analogy*, 3 PERSP. ON PSYCHOL. SCI. 454, 454-60 (2008) [hereinafter Schauer, *Analogy*].

6 Since I am only interested in theories of precedent, I am only interested in common law systems. All further references to judicial reasoning refers only to common law judicial reasoning and likewise for references to judges, cases, and so on.

decided for one party on the basis of certain reasons and (ii) ultimately decide for that party but give different reasons because of the way a past case or cases were decided.

Finally, precedent can constrain a judge to reach a decision when she would otherwise rule to the contrary. For example, a judge can (i) think that, in absence of precedent, a case should be decided for one party, and (ii) decide the case for the other party because of the way in which a previous case or cases were decided. A concrete example is helpful. Suppose the current case before the judge is a claim by Betty that Abel's adult book store is a nuisance. Further, suppose there is an earlier case holding that adult book stores are not nuisances. If that earlier case has the force of precedent, then the court must decide in favor of Abel, though it would otherwise have decided in favor of Betty. In this case, the influence of precedent is rather strong: it overrules the judge's initial opinion that the case should be decided the other way.

This final form of precedential influence is the rule-theorists' "precedential constraint."[7] That is, precedential constraint only occurs when precedent prevents a judge from deciding the case according to her own lights. The challenge of explaining precedential constraint is crucial for theories of judicial reasoning; the response to this problem determines the overall character of the theory.[8]

Before reviewing the types of theories of judicial reasoning, I should clarify the purpose of a philosophical theory of judicial reasoning, focusing only on reasoning with precedent and ignoring for now the obvious fact that even common law judges also decide cases where no precedent applies. A philosophical theory of judicial reasoning falls on the descriptive side of the normative/descriptive divide (or the descriptive end of the normative/descriptive spectrum). The theory is not an account of

7 *See* Alexander & Sherwin, *Demystifying*, *supra* note 1, at 31-104; Schauer, *Precedent*, *supra* note 3; (2012); Schauer, *Analogy*, *supra* note 5.

8 *See, e.g.*, Alexander & Sherwin, *Demystifying*; Grant Lamond, *Precedent and Analogy in Legal Reasoning*, *in* THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N. Zalta ed., 2008), http://plato.stanford.edu/archives/fall2008/entries/ legal- reas-prec/ [hereinafter Lamond, *Precedent and Analogy*]

how judges ought to reason, because that account might not explain any actual judicial behavior. One might think that judges should never reason using precedent, or that they should never over-rule or distinguish precedents. Yet a theory using those principles misses the mark, as it ignores too much of judicial practice.

Instead, a philosophical theory of judicial reasoning is an attempted explanation, at a particular level of description,[9] of the reasoning employed by common law judges in deciding cases. However, discerning what should count as data to be explained by a theory of judicial reasoning is not straightforward. Unfortunately, a judge sometimes reaches a decision because he was bribed, or because he refuses to rule for minorities, or because he didn't want a hearing to overlap with his tee-time.[10] When constructing a theory, the theorist has to determine which of these activities count as genuine instances of judicial reasoning. In fact, thinking of activities as simply in or out of the data set is slightly naive. More realistically, the theorist must determine the centrality or importance of the behaviors to the practice of judicial reasoning. Decisions due to governing precedent or the equities of the parties are more central to judicial reasoning than decisions due to bigotry and bribery, and final judgments due to bribery seem more central than scheduling orders determined by peak golfing hours and so on. One might plausibly think this prioritizing of the data is a normative enterprise, perhaps based on the behavior of idealized judges.

Further complicating matters, some theorists write of judges as "decision maker[s] operating under a *norm* [emphasis added] of precedent."[11] I think it is accurate to characterize precedential

9 This caveat is necessary to avoid confusion. A theory explaining the sequences of neural firings occurring when judges make decisions is clearly not a philosophical theory of judicial reasoning, despite explaining the same data. We are looking for an explanation in the language of cognitive or folk psychology, not neuroscience or chemistry.

10 Some in the Legal Realist camp may argue that all judicial reasoning is in fact like this, i.e. all decisions are reached due to prejudice or self-interest, or class-interest, and so on. If that's right, then a theory of judicial reasoning takes on a different tone, as it becomes an account of what judges think they are doing in making decisions, or what they present themselves as doing, or maybe what they ought to do. I disagree, but it matters little here, where my purpose is to argue that one theory, which Realists reject, is stronger than another, which they also reject.

11 Schauer, *Analogy*, *supra* note 5, at 458.

constraint as a norm of judicial reasoning, but the goal of a theory of judicial reasoning is not to justify that norm but rather to explain what it is and how judges follow it. Whether these considerations show that a theory of judicial reasoning is ultimately normative is not terribly important for my purposes. The issue here is no different than what theorists in various sciences face. Linguistics provides an illustrative example. As Scholz *et al* note,

> [E]very linguist accepts that some idealization away from the speech phenomena is necessary… [linguists] are almost always happy to idealize away from sporadic speech errors.…Notice, then, that … the results of a corpus search are generally filtered through the judgments of an investigator who decides which pieces of corpus data are to be taken at face value and which are just bad hits or irrelevant noise. [12]

Of course not all idealizations are universally accepted, as we can see in the linguistic controversy regarding how thoroughgoing the competence/performance distinction is.[13]

However, in the domain of legal reasoning I think there is rough agreement that things like bribery and overt bigotry are low priority data and if we all roughly agree on what counts as central to judicial reasoning, then we can start comparing theories.[14] Of course, one need not (and probably ought not) set strict boundaries at the outset, as trade-offs between the amount of data explained (explanatory power) and other theoretical virtues such as simplicity can be made during the development and refinement of a theory. In fact, as we will see, explanatory coverage is my reason for favoring analogical rather than rule-based theories.

We are now positioned to consider some theories of judicial reasoning. In particular, I want to examine two types of such theories: rule-based theories and analogical theories. Admittedly, differences abound between theories within each category and many prominent theories[15] do not fit

12 Barbara C. Scholz, Geoffrey K. Pullum, & Francis J. Pelletier, *Philosophy of Linguistics* §2.1, *in* STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N. Zalta, ed., 2011), http://plato.stanford.edu/entries/linguistics/.
13 *Id.* §2.
14 Forms of Legal Realism may be outliers, see *supra* note 4.
15 *See, e.g.* RONALD DWORKIN, LAW'S EMPIRE (1986).

neatly into either category. Nonetheless, each type characterizes a substantial set of prominent theories.[16]

Rule-based theories explain judicial reasoning as the process of extracting rules from past cases and following those rules in current cases.[17] How the extraction process works varies amongst the individual theories,[18] but the reasonable ones claim it depends on the intentions of the author(s) of the past opinions[19]. Once the rules are extracted, judicial reasoning is simply a matter of seeing which rule applies in the current case. For example, suppose there is a past case that says "in residentially zoned neighborhoods, adult bookstores constitute a nuisance," and no other past cases. In the case between Abel and Betty, all the judge must do is determine whether Abel's business is an adult bookstore and whether it is located in a residential neighborhood. If both those conditions are met, then she must follow the rule and hold that the bookstore is a nuisance. If either one is not met, then she is free to decide the case as she pleases.

On the rule based view, precedential constraint occurs when "the decision maker feels constrained and compelled to make what she now believes to be the wrong decision."[20] This may not be the most intuitive way of putting the point, but the idea is this: as we mentioned above, when a judge is constrained by a rule of precedent, she is deciding the case contrary to how she would decide it if there were no precedents. Further, adds the rule theorist, she is not deciding to apply the rule due to concerns for the consistency, or predictability, or integrity of the law, or any other concerns related to

16 On the rule-based side see Alexander & Sherwin, *Demystifying*, *supra* note 1; Schauer, *Playing by the Rules*, *supra* note 2. On the analogical front see Scott Brewer, *Exemplary reasoning: Semantics, Pragmatics, and the Rational Force of Legal Argument by Analogy*, 109 HARV. L. REV. 923 (1996); Phoebe Ellsworth, *Legal Reasoning*, *in* THE CAMBRIDGE HANDBOOK OF THINKING AND REASONING 685 (Keith J. Holyoak & Robert G. Morris Jr., eds., 2005); John Horty, *The Result Model of Precedent*, 10 LEGAL THEORY 19 (2004) [hereinafter Horty, *The Result Model*].

17 *See* Alexander & Sherwin, *Demystifying*, *supra* note 1, at 31-64, 131-237; *see generally*, Schauer, *Playing by the Rules*, *supra* note 2.

18 See Alexander & Sherwin, *Demystifying*, supra note 1, at 12 n.11, 21 n.38, for a comparison of their view on the extraction process with that of Schauer.

19 *See* Larry Alexander & Saikrishna Prakash, *Is That English You're Speaking? Some Arguments for the Primacy of Intent in Interpretation*, 41 SAN DIEGO L. REV. 967 (2004).

20 Schauer, *Analogy*, *supra* note 5, at 458.

the value of maintaining a rule.[21] That is, it's not the case that she would decide for the plaintiff, but ultimately decides for the defendant because doing so renders the law more consistent, or makes the results of legal proceedings more predictable, or has some other benefit in virtue of maintaining a rule. Concerns for predictability, consistency, etc. are reasons for implementing a system of precedential reasoning. They are not, on a rule-theorist's view, reasons relied upon by a judge constrained by precedent. Rather, for such a judge the status of the rule as precedential preempts any reasons for or against applying the rule.[22]

On the rule-based picture the judge acting under precedential constraint applies the rule without thinking that doing so is justified by systematic concerns, since she does not consider those reasons at all.[23] According to this view, a precedent favoring one party is not merely one reason in that party's favor, it is dispositive--the judge must decide for that party. An analog is the constraint of price in decisions about purchases. Suppose I have $400 and I want to buy a suit. The Izod suit is $200, the Kenneth Cole suit is $300, and the Ralph Lauren is $500. As between the Izod and the Kenneth Cole price is a consideration that favors the Izod, but it may be outweighed by other considerations, such as quality of fabric or fit, that favor the Kenneth Cole. However, as between the Ralph Lauren and the other two, price is a constraint. I simply can't afford the Ralph Lauren, no consideration in its favor can outweigh this. No matter how much better the Ralph Lauren is than the other two, I just cannot buy it.

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21 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 41.

22 Rule theorists have an argument for this claim, viz., if all judges only follow precedent when it is justified by the value of maintaining the rule and all judges mutually know this, then the value of maintaining the rule approaches zero, because each judge knows that each rule can be disobeyed at any time and hence sees little value in maintaining such a rule. See Alexander & Sherwin, *Demystifying*, *supra* note 1, at 41; Schauer, *Playing by the Rules*, *supra* note 2, at 190–96. Whether this argument is convincing is outside the scope of this piece.

23 Note that this is does not entail thinking that applying the rule is *not* justified by systematic reasons about the legal system. Suppose a judge has, as precedential constraint requires, judged that the reasons about the particular case favor not applying the rule. Further, she has not thought at all about systematic reasons favoring applying the rule, but nonetheless applies the rule. Then we can say, as Schauer does, that she decided to apply the rule while believing that is the wrong decision. After all, she has recognized reasons for not applying the rule and has not recognized any reasons to the contrary.

Although explaining rule extraction[24] and rule following[25] is a subtle business, the rule-based theory is fairly straightforward. However, one supposed implication[26] of the theory is rather bold: there is no distinction between the practice of distinguishing previous cases and the practice of overruling them, despite the importance of this distinction to legal practitioners[27] and theorists[28] alike. As Alexander and Sherwin admit, "the rule model does not and cannot distinguish between overruling precedent and modifying or 'distinguishing them."[29]

A modification to the previous example illustrates the rule-based theory. Suppose that Abel's neighborhood had been zoned residential but due to liberal zoning exemptions its buildings are now 90 percent commercial. The judge decides to distinguish the current case, holding that "in a neighborhood zoned as residential but overwhelmingly populated with commercial buildings, an adult bookstore is not a nuisance." She was faced with an applicable rule and refused to apply it, instead creating a new rule, namely, that if the building is an adult bookstore, the neighborhood is zoned residential, and the neighborhood is overwhelmingly populated with commercial buildings, then the bookstore is not a nuisance. If she had decided to overrule, rather than distinguish, the previous case by holding, "in neighborhoods zoned as residential, adult bookstores are not a nuisance," then she would still have decided to make a new rule rather than follow the old one. For the rule theorist, the refusal to follow

24 *See* Alexander & Prakash, *supra* note 19; Daniel Dennett, *The Interpretation of Texts, People and Other Artifacts*, 50 PHIL. & PHENOMENOLOGICAL RES., 177 (1990).

25 *See* Ludwig Wittgenstein, PHILOSOPHICAL INVESTIGATIONS (1953).

26 Alexander and Sherwin take this as an implication of a rule-based view. One might think that a rule theory could identify distinguishing as special, limited type of overruling which involved constraints on the content of the new rule. *See, e.g*. JOSEPH RAZ, THE AUTHORITY OF LAW, 186-87 (1979). Alexander and Sherwin argue against this, claiming that the constraints involved would be illusory–for any rule that fails the constraints, a judge can formulate an equivalent one that meets the constraints. Alexander & Sherwin, *Demystifying*, *supra* note 1, at 84–86. Whether the argument is convincing is outside the scope of this paper.

27 *See* Admin. Office of U.S. Courts, Precedents, http://www.uscourts.gov/EducationalResources/ConstitutionResources/SupremeCourtDialogs/JudicialInterpretationDiscussionTopics/Precedents.aspx (last visited Nov. 28, 2012) (stating "American law is based on the principle of precedent.").

28 *See* Schauer, *Playing by the Rules*, *supra* note 2; Lamond, *Precedent and Analogy*, *supra* note 8; Steven Perry, *Two Models of Legal Principles*, 82 IOWA L. REV. 787 (1997).

29 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 114.

the old rule is all there is to both distinguishing and overruling. A judge that may refuse to follow the old rule by distinguishing is no more constrained than a judge that may refuse to follow the old rule by overruling it.

Effacing the distinction between distinguishing and overruling has dramatic consequences, e.g., it renders illusory a critical distinction in U.S. federal and state court structure, namely, the distinction between appellate courts, which have the power to distinguish any precedent and to over-rule precedent established by lower level courts, and district courts, which may only distinguish precedent. If distinguishing is merely over-ruling, then trial courts are no more constrained by precedent than the highest appellate courts. This creates a deep divide between the theory and practice of judicial reasoning by putting a low priority on what appears to be an important distinction.[30]

In contrast, analogical theories try to accommodate the distinction between distinguishing and overruling. Analogical theories are a wide ranging group, but common to all is the thought that the judge observes the facts of a past case, compares them to the current case, and then decides the current case based on the comparison.[31] The idea is that if the facts in the past case are relevantly similar to the current case, then the current case must be decided the same way as the past case. Precedential constraint occurs when the judge decides the cases the same way based on their similarity while thinking it is suboptimal to do so. Distinguishing occurs when the judge decides that a superficially similar past case is in fact not relevantly similar, i.e. when the judge notices an important dissimilarity between the past case and the current one. Overruling occurs when the judge determines that the two cases are relevantly similar, but nevertheless decides the current case differently than the past one. The

30 This criticism is not new. *See, e.g.* Grant Lamond, *Do Precedents Create Rules?*, 11 LEGAL THEORY 1 (2005) [hereinafter Lamond, *Do Precedents*].

31 This follows Alexander and Sherwin. Alexander & Sherwin, *Demystifying*, *supra* note 1, at 64–65. Note that this categorizes a number of theories as "analogical" that do not intuitively seem analogical, such as Horty, *The Result Model*, *supra* note 16 and Raz, *supra* note 26. For Alexander and Sherwin "analogical theories" are all theories that attempt to explain the practice of distinguishing, except for those that use Dworkinian legal principles. Alexander & Sherwin, *Demystifying*, *supra* note 1, at 64–5, 88–9.

judge with the power to overrule can make what she thinks is the best decision.

The ability to differentiate distinguishing from overruling, which judges and other legal practitioners appear to treat as distinct processes, gives analogical theories an advantage over the rule theories. Even assuming that distinguishing is not essential to judicial reasoning, being able to explain it is still a virtue, albeit slight. However, rule theorists have argued that this virtue is illusory because analogical reasoning cannot explain precedential constraint, which is essential to judicial reasoning.[32] Their arguments take two forms: (1) essentially a psychological argument that analogical reasoning cannot explain the mental state required for a judge acting under precedential constraint; (2) a more normative claim about the data to be explained, namely, that distinguishing cannot be part of a system of reasoning that involves precedential constraint and hence any theory that allows distinguishing should be rejected. In what follows I examine these arguments and show that they leave analogical theories no worse off than the rule-based theories. Since the analogical theories are also able to differentiate distinguishing from overruling, I conclude that we should prefer the analogical theories to the rule based ones.

3. The Alleged Psychological Problem with Judicial Reasoning as Analogical Reasoning

The argument against analogical reasoning as judicial reasoning proceeds as follows. Analogical reasoning depends on finding similarities between the source case and a target case. One finds similarities between the two and then extrapolates known features of the source to the target. Let Betty versus Abel be our current (and hence target) case. If the source case involves an adult book store that is not a nuisance, then one extrapolates that the adult book store in the target, i.e. Abel's store, is not a nuisance as well. One may also find a dissimilarity that prevents the extrapolation, e.g. if Abel's bookstore holds loud concerts at night and the bookstore in the source case was quiet, then one

32 *See* Alexander & Sherwin, *Demystifying*, *supra* note 1, at 64–88; Schauer, *Analogy*, *supra* note 5.

might not extrapolate that Abel's loud bookstore is not a nuisance.

However, the story goes, there are infinitely ways in which any one case is similar to any other case and also infinitely many ways in which they are dissimilar. On the one hand, we might have only one previous case,[33] which involved a male plaintiff and held that an adult bookstore is not a nuisance. Then the current judge could say that the adult bookstore is a similarity that requires the same result in the current case. On the other hand, the judge could find that the gender of the plaintiff is a dissimilarity that blocks extrapolating that Betty should prevail. The judge is not constrained because she will always be able to find some respect in which the current case differs from a previous case and use that to distinguish them. Thus it appears that analogical reasoning is incapable of explaining precedential constraint.

The straightforward reply to this argument, offered by legal theorists and psychologists alike, is to claim that not all the myriad similarities and differences between cases are relevant in analogical reasoning.[34] If they were, then analogical reasoning could never get off the ground. No proponent of judicial reasoning as analogical reasoning, or of analogical reasoning generally, thinks that the gender of the plaintiff is a relevant dissimilarity in the previous examples. What is needed is a similarity metric that determines the relevance and degree of similarity between features in the two cases.[35] In the above example, the similarity metric is what tells us that the gender of the plaintiff is irrelevant. It also tells us that (in the context of a nuisance action) an adult bookstore is more similar to an adult

33 The assumption of only one precedential case is unrealistic, but it helps make the critique clear.

34 See Brewer, *supra* note 16; Keith J. Holyoak, Keith & H. S. Lee, *Causal Models Guide Analogical Inference*, *in* PROC. TWENTY-NINTH ANN. CONF. COGNITIVE SCI. SOC'Y 1205 (D. S. McNamara & G. Trafton, eds., 2007); for impositions of criteria for relevant similarities. Brewer takes relevance to follow from the pragmatic goals a judge has in making a decision and the requirement of an analogy warranting rationale for treating the similarities as justifying the extrapolation. Holyoak, writing on analogical reasoning in general, likewise recognizes that the question the reasoner is trying to answer by analogy will influence which "mappings"– pairs of similarities–are relevant.

35 You can collapse these two by assigning a similarity of degree zero to any pair of irrelevant features. More importantly, you can think of relevance as a matter of degree as well. Hence you could multiply the degree of similarity by the degree of relevance to get a measure of relevant similarity.

video store than a children's bookstore.[36]

Fixing a similarity metric will allow us to be bound by analogical reasoning because it provides a basis for claiming some cases are more or less similar than others. If we think of the degree of similarity in terms of numerals, then you can sum the degrees of similarity to get the total measure of the similarity between a target and the source.[37] Furthermore, we can impose a standard of sufficient similarity (SOSS) such that if the total measure of similarity between a source and a target is above this standard and there is no other source with an equal or higher total measure of similarity, then the reasoner must extrapolate from the source. That is, the reasoner must extrapolate from a source if and only if it is the most similar of all the sources that are sufficiently similar to the target.

For example, consider again the case of Betty and Abel, and let the only possible precedent be a case with a male plaintiff holding that an adult book store is not a nuisance. Suppose the similarity metric deems the gender of the plaintiff irrelevant. Further, suppose this past case is above the SOSS with respect to Betty's case. It follows that the judge has to extrapolate that Abel's bookstore is not a nuisance. Hence the judge is bound to rule against Betty,[38] even if she thinks that all adult bookstores should be considered nuisances. She is thus constrained to rule contrary to how she would rule if the past cases did not have the force of precedent.

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36 There could be one master metric that assigns a degree of similarity to a pair composed of a context and a pair of features, or multiple metrics that assign a degree of similarity to pair of features with the choice amongst the metrics determined by context. The two are equivalent for my purposes.

37 This follows the strategies found in the psychological literature on analogy. See Keith J. Holyoak, *Analogy, in* THE CAMBRIDGE HANDBOOK OF THINKING AND REASONING 117, 134-5 (Keith J. Holyoak & Robert G. Morris Jr., eds., 2005), which ranks mappings between a target and a single or multiple sources by how many constraints, such as similarity, structure, and purpose, the mapping satisfies. See also Brian Falkenhainer et al, *The Structure-Mapping Engine: Algorithm and Examples*, 41 ARTIFICIAL INTELLIGENCE 1 (1989), which uses a structural mapping engine that ranks relations such as "cause(x,y)" and "occupy(x,y)" and then favors mappings which include correspondences between higher-order rankings.

38 She may rule for Betty only if she overrules the past precedent, makes a mistake, or intentionally deviates from common law practice.

4. Schauer's Response

At this point the two major critics[39] of analogical reasoning offer similar but distinct responses. Schauer claims that analogical reasoning can only act as a "friend" but never as a "foe."[40] The idea is that something must guide our choice of a similarity metric[41] and there are only three pertinent situations in which an analogical reasoner may find himself.

Situation 1 (Analogy as a Friend): The reasoner has already made a decision and simply searches for a metric that justifies this decision. For example, a President may think it is best to invade Iraq and then try to convince the public that invasion is the right decision by analogizing Iraq to 1930s Germany.[42] The role of analogy here is post hoc, paralleling the role of most moral reasoning if we follow Haidt.[43] It is a friend to the decision already made.

Situation 2 (Analogy as a Problem Solver): The reasoner has not yet made a decision and uses analogical reasoning to make one. The question that the reasoner is trying to resolve helps to guide the selection of the metric.[44] For example, a President might be trying to decide whether to invade Iraq. Since he is trying to decide whether one country should invade another, he is guided to a metric that makes similarities in army size relevant and similarities in average rainfall irrelevant. He then constructs analogies between Iraq and 1930s Germany and 1960s Vietnam. He finds the latter analogy compelling and becomes convinced that he should not invade Iraq.

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39 *See Demystifying*, *supra* note 1, at 64–88; Schauer, *Analogy*, *supra* note 5.

40 *See* Schauer, *Analogy*, *supra* note 5.

41 Schauer puts it in terms of a choice of a source but in the context of this paper I think the critique is best understood as dealing with the choice of the metric. *See* Schauer, *Analogy*, *supra* note 5. In the legal context there are only a finite number of potential sources, because there are only a finite number of prior cases in the jurisdiction. Further, most of these cases will be immediately excluded as irrelevant by the metric, e.g. a felony murder case is not going to be relevant to Betty's nuisance claim.

42 This example is based on one found in Holyoak, *supra* note 37, at 125–127.

43 See Jonathan Haidt, *The Emotional Dog and Its Rational Tail: A Social Intuitionist Approach to Moral Judgment*, 108 PSYCHOL. REV. 814 (2001) which argues that most moral reasoning is a post hoc justification of intuitions.

44 "Selection" is perspicacious here, but I do not want to suggest that the selection of a similarity metric is a consciously directed process. It is not as if the reasoner must have a bunch of metrics in mind and then thinks, "I pick that one."

Situation 3 (Analogy as a Foe): The reasoner has already decided on one course of action, but analogical reasoning causes him to take a contrary course of action. For example,. a President is initially convinced he should not invade Iraq, but nonetheless decides to invade Iraq because of its similarity to 1930s Germany. Schauer denies that this situation ever occurs, because the decision for one course of action will cause the selection of a metric favorable to that course of action. Since precedential constraint can only occur in situation 3, it follows that analogical reasoning cannot explain precedential constraint.

To scrutinize Schauer's response we need to look at the psychology underlying precedential constraint. For rule theorists, as discussed above, the judge acting under precedential constraint makes "what she now believes to be the wrong decision."[45] Despite thinking the decision is wrong, the judge intentionally decides to follow the precedent. Making sense of this seemingly paradoxical[46] state of mind has led Schauer as well as Alexander and Sherwin to suggest that precedential reasoning involves a sort of self-deception.[47] I do not wish to take a stand on this issue. I think psychologists are much better equipped for that task.[48] Rather, I want to consider how the analogy theorist can reply even if he accepts this bit of the rule theorists' speculative psychology.

It is easiest to think of this rule-theorists' psychological theory in terms of a split mind. One part of the reasoner's mind thinks that A is the best course of action in circumstance C, while another part of it thinks that C falls within the scope of a rule that prescribes a non-A course of action. The reasoner is constrained by precedent when he decides to follow that rule without changing the other part of his mind.

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45 Schauer, *Analogy*, *supra* note 5, at 458.

46 It's an instance of akrasia , but likely not of weakness of the will. *See* Richard Holton, *Intention and Weakness of Will*, 96 J. PHIL. 241 (1999) (addressing the distinction between akrasia and weakness of the will).

47 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 18; Schauer, *Analogy*, *supra* note 5, at 459–460.

48 So does Schauer. Schauer, *Analogy*, *supra* note 5, at 459–60.

Unfortunately for Schauer, a similar theory is available to the analogical theorist. One part of the reasoner's mind thinks that A is the best course of action. Another part reasons analogically; it selects a similarity metric guided by the question of what to decide in C. It finds a source analog that rises above the standard of sufficient similarity and thus accepts the extrapolation from that source. The extrapolation recommends a non-A course of action. The reasoner is constrained by precedent when he decides to follow the extrapolation without changing the other part of his mind.

Still, Schauer may object that bias in selection of the similarity metric renders analogy incapable of grounding precedential constraint. The reasoner's judgment that A is the best course of action will, according to the objection, unavoidably cause the reasoner to select a metric that supports an A course of action. In terms of the split mind psychology, the objection is that the part of the reasoner's mind that performs the analogical reasoning cannot be insulated from the part that judges A to be the best option.

The reply to this criticism is to point out (i) that we have no reason to think that the selection of similarity metrics is unavoidably biased in this way, and (ii) the same problem arises for rule theories. After all, if the part of the mind that performs analogical reasoning cannot be insulated from the part that thinks A is the best course of action, then why should we think that the part performing rule extraction and application can be so insulated? There is no reason to think that rule-based reasoning is uniquely insulated from beliefs about the best course of action.

One might object that the process of rule extraction has a safeguard against bias insofar as the meaning of a rule is determined by facts such as the intentions of those who declared the rule. There are two ways this objection could run. First, it could depend on there being a uniquely correct meaning for the rule. The objection is then that the lack of a uniquely correct similarity metric makes the choice of metrics more susceptible to bias. Yet, no one has ruled out an objectively correct similarity metric for which analogical reasoning searches. I won't argue for that here, but it is a live option and it puts

analogical reasoning on par with the rule-theorist.

Further, even if there is no uniquely correct similarity metric, it does not follow that the process of choosing a metric is more vulnerable to bias. It doesn't seem that whether or not there is a uniquely correct metric has in itself any effect on susceptibility to bias. Consider a manager with a bias against women who is deciding which employee to promote. Suppose there are two employees eligible for promotion, one man and one woman. The woman is the more effective employee and hence ought to be promoted, but the manager's bias favors the man. Now suppose that there are four employees, two men and two women. Suppose that the two women are equally effective and each is more effective than either man, so promoting either woman would be proper. Does anyone think that the manager is now less likely to biasedly promote a man? [49]

The second way to take the objection is that it depends on treating extracting a rule as a search for a fact, namely, the intentions of the past judge. The objection holds that such a process is more impartial than the process of selecting a similarity metric. But it seems we can treat the selection of a similarity metric as a search for a fact, namely, the fact that the cases are relevantly similar (or dissimilar). I do not see any reason to reject such facts. They may be difficult to characterize (perhaps depending on intersubjective agreement within a community), but facts about the past judge's intentions faces similar difficulties. Admittedly, it is harder to be biased when the evidence is manifest. If facts about the past judge's intentions were clear and conspicuous, then rule extraction would be relatively unbiased. However, facts about those intentions are notoriously difficult to discern. Hence even this extraction process faces the same difficulties as the choice of similarity metric.

49 Of course, if anything goes and there is no distinction between good and bad metrics then the choice of metric is arbitrary. But this is not Schauer's objection, since there is no need to worry about bias if a decision is arbitrary.

5. Alexander and Sherwin's Response

Alexander and Sherwin offer a different response to the analogical theorist who wishes to use a similarity metric.[50] Rather than claiming that a similarity metric cannot ground precedential reasoning, they claim that the similarity metric makes the reasoning non-analogical. Alexander and Sherwin argue as follows:

> Analogical decision making based on factual similarity between cases is either intuitive or deductive. If the process of identifying important similarities is intuitive, the precedent case does not constrain the outcome of the new case in any predictable or even detectable way [i.e. it is not a form of reasoning at all]. If the process is deductive, the rules or principles that govern similarity, rather than the outcome of the precedent case, determine the result of the new case.[51]

In terms of a similarity metric, the argument is that either (i) the metric is intuitive and hence incapable of underlying a reasoning process or (ii) the metric is composed of (or determined by) rules/principles and the reasoning is not genuinely analogical, since these principles and not the outcome of the past case constrain the judge. Further, they argue that these principles must be either principles of morality or legal rules extracted from past cases.[52] Hence, what might seem like analogical reasoning is reduced to either general moral reasoning or rule-based reasoning.

Let's begin with (ii). Suppose our metric says that in nuisance actions adult bookstores and adult video stores are significantly similar. How did we arrive at this metric? If we deduced it from the principle that both adult bookstores and adult video stores are nuisances then the principle is sufficient to determine the result and analogy adds nothing.[53] That seems to be the kind of principle Alexander and Sherwin have in mind. However, a metric could be deduced from principles that are not sufficient to determine the result of the case. For example, we can deduce that adult bookstores and adult video

50 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 68–88.
51 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 81.
52 They argue that a third option, a Dworkinian extraction of the principles that best cohere with the past decisions will not yield genuine constraint because any weighing of the principles is permissible and any result can be reached with the right weighing. I disagree, but that's outside of my project here.
53 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 170–171.

stores are importantly similar for nuisance from the principles "presenting the same danger to neighboring children is a similarity relevant to nuisance actions" and "adult bookstores and adult video stores present the same danger to neighboring children." Yet these principles do not by themselves determine the result in the case, because they do not tell us whether adult bookstores or adult video stores are nuisances. Even assuming no further relevant similarities, these principles would only allow a judge to conclude that adult bookstores and adult video stores must be treated alike in nuisance actions. The result in the past case determines whether this means both are or are not nuisances.

It is not clear why Alexander and Sherwin think these non-determinative principles are illegitimate. If we combine these non-determinative principles with the results in the past case, we get determinative rules, which look just like the rules favored by rule-theorists. Additionally, it seems plausible that we do reason our way to non-determinative principles. For example, moral reasoning[54] can lead us to principles such as "the gender of the victim is not relevant to how the murderer should be punished." I think the real dispute here is how judges acquire the rule: on the analogical picture you get principles of similarity and then combine them with the result to get the determinative rule while on the rule theory you extract the determinative rule wholesale, without making any judgments about similarity. However, as I explain below, it's unlikely that extraction of rules could be done without any similarity judgments.

Now let's consider (i), Alexander and Sherwin's claim that intuitive processes are incapable of underlying genuine reasoning. They justify this by appeal to Haidt's characterization of a reasoning process as "slow and effortful…intentional and controllable…consciously accessible and viewable."[55] Yet, they have no problem with analogical reasoning if it is merely rapid rule following.[56] They seem to

54 A fully fleshed out analogical theory will have to specify whether the principles are derived from moral reasoning or past cases or some other source, but nothing about analogy compels selecting one of these source rather than another.
55 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 10 n.3 quoting Haidt, *supra* note 43, at 818.
56 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 72. See Steven R. Quartz, *Reason, Emotion, and Decision-*

think rapid rule following is not genuinely intuitive. However, such a distinction cannot be drawn using Haidt's characterizations since rapid rule following certainly is not "slow and effortful."[57]

Strangely, Alexander and Sherwin think it is acceptable for an intuitive judgment of similarity to "spark" moral reasoning about which principles justify that intuitive judgment, because this reasoning is just moral reasoning, not a distinctly analogical form of reasoning.[58] For this to be plausible the force of the intuitive "spark" cannot be too strong, lest the moral reasoning end up serving as a mere post hoc justification–the rationalist tail wagged by the analogical dog. However, even if the intuitive judgment (the spark) is easily defeasible, it could still significantly influence the reasoning process. For example, the intuitive judgment could make salient certain features of the case that remain at the fore of the judge's mind even after the he rejects the judgment. Hence, the conclusions of sparked moral reasoning regarding a case may differ significantly from the conclusions one would get from spark-free moral reasoning about that same case. Perhaps sparked moral reasoning should be considered an independent, analogical, form of reasoning rather than a subspecies of moral reasoning.

Still, we must consider why Alexander and Sherwin claim the judgment of similarity cannot be purely or primarily intuitive. They argue that the process will fail to be reasoning at all, and per Haidt's definitions, they are correct. The question then becomes, why should we think reasoning ought to conform to the definitions put forth by Haidt? It has been argued that Haidt's demarcation of reasoning and emotion is inadequate in general,[59] but we need only concern ourselves with its relation to judicial reasoning. Alexander and Sherwin assert,

> Members of a community choose an authority to translate values they recognize as reasons for action into particular decisions or rules when their own judgments conflict…[I]t is expected that the process of translation will be capable, at least in principle, of articulation and

Making: Risk and Reward Computation with Feeling, 13 TRENDS IN COGNITIVE SCI. 209 (2009), for a selection of the psychological literature suggesting that this is how some intuitive processes seem to work.

57 Haidt, *supra* note 43, at 818.

58 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 73–4.

59 *See* Cordelia Fine, *Is the Emotional Dog Wagging its Rational Tail, or Chasing It?*, 9 PHIL. EXPLORATIONS 83 (2006).

> justification. Otherwise, the choice of an authority is no different than a flip of a coin. This leads to the normative point: judicial decision making, as an exercise of authority, ought to… entail more than blind, untested, untestable intuition.[60]

If judicial reasoning is based on purely intuitive judgments of similarity, then authority becomes a mere coin-flip, unjustifiable and unresponsive to any societal values. As Alexander and Sherwin point out, their response is no longer psychological, but (slightly) normative. They claim that a theory of judicial reasoning need only explain decisions that reflect the values recognized by the community and that purely intuitive judgments cannot explain that data.

We could respond by claiming that judgments reflecting those values simply do not occur, banishing Alexander and Sherwin's theory to the realm of the purely normative. However, that claim seems empirically implausible and I think a better response is available, namely, that Alexander and Sherwin seem to be conflating being unarticulated with being unarticulable. Of course, one making an intuitive judgment is not articulating a similarity metric or set of principles to himself; he isn't ticking off items on a mental checklist or walking through a deduction from first principles. But this does not mean there is no articulable process at work. Easy examples abound in literature on implicit bias,[61] such as managers that do not articulate, and would reject if articulated, a principle discriminating against Arab Muslim employees but still systematically judge Arab Muslims unfit for promotion.[62] We can articulate the process underlying the managers' decisions, and although in this instance the process clearly lacks justification, it does not lack justification *in principle*.

One might worry that once we articulate the analogical process we have reduced it to rules. However, every form of reasoning goes from a set, P, of premises or evidence to a conclusion, C.

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60 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 75–76.

61 See Anthony G. Greenwald & Mahzarin R. Banaji, *Implicit Social Cognition: Attitudes, Self-Esteem, and Stereotypes*, 102 PSYCHOL. REV. 4 (1995), for the seminal work. The National Center for State Courts offers a summary of current research. *See* NATIONAL CENTER FOR STATE COURTS, HELPING COURTS ADDRESS IMPLICIT BIAS (2012), http://www.ncsc.org/~/media/Files/PDF/Topics/Gender and Racial Fairness/Implicit Bias FAQs rev.pdf.

62 *See* Dan-Olof Rooth, *Automatic Associations and Discrimination in Hiring: Real World Evidence*, 17 LAB. ECON. 523 (2010).

Hence any form of reasoning could be articulated by a rule like "from P, infer C." Yet, we not are all rule theorists. So long as the process is not articulated in terms of indefeasible (strict), outcome determinative rules extracted entirely from individual past cases it is not a "rule based theory" in Alexander and Sherwin's sense of the phrase.[63]

Still, suppose we granted Alexander and Sherwin that the intuitions of similarity depend on an unarticulable process. Must we then conclude, as Alexander and Sherwin do,[64] that analogical reasoning is arbitrary and incapable of implementing social values? No. We could understand legal similarity as a cultivated or learned intuition, a matter of knowing how rather than knowing that. Just as Derek Jeter at age 5 did not track the position of a fly-ball, but now he does so intuitively, one can learn to intuit the appropriate similarity metric in legal contexts.[65] Just as the values of Jeter's previous coaches influence his current catching technique, so the values of the society in which the aspiring lawyer was trained influence his current reasoning. This does not license the use of any particular sort of metric. There may be no single correct catching technique, but there are certainly incorrect ways of doing it. If I try to catch the ball with my teeth rather than the glove, then I am doing something wrong. Likewise, there may be no one "real" metric out in the aether to which we aspire, but the consensus amongst those experienced in judicial reasoning rules out metrics that do things like make similarities in plaintiffs' names relevant.[66]

Further, we can ask whether the rule-based theory offered by Alexander and Sherwin meets their own lofty standards. Recall that according to their view, precedential reasoning depends on extracting rules from past opinions and then deciding to follow such a rule despite thinking it leads to

63 *Supra* at p.15.

64 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 75–76.

65 I am assuming, contrary to fact, that the process underlying tracking a fly ball is inarticulable. *See* Michael K. McBeth & Dennis M. Shaffer, *Baseball Outfielders Maintain a Linear Optical Trajectory when Tracking Uncatchable Fly Balls*, 28 J. EXPERIMENTAL PSYCHOL.: HUM. PERCEPTION AND PERFORMANCE 335 (2002).

66 This is not to suggest there is no single right method to catch a baseball and or single correct metric. The argument is unchanged so long as some methods and metrics are ruled out.

sub-optimal results. A problem arises when we ask how the rules are to be extracted and interpreted. If the prior case says "bookstores are not nuisances," should we understand "bookstores" to include adult bookstores? Thanks to Goodman[67] and Kripke,[68] more devious interpretations loom: should we interpret "bookstores" to mean stores that sold books before 2011 and stores that sell horses thereafter? In response to these concerns, Alexander and Sherwin argue that "the conclusion to draw–and that is almost universally drawn, though by differing routes–is that… [language interpretation] and rules are matters of *knowing how* rather than *knowing that*."[69]

Regardless of whether or not this response is adequate, it shows that the rule-theorists are subject to the same criticism they leveled against analogical theorists. For Alexander and Sherwin, extracting a rule bottoms out in irreducible knowledge how, which supposedly doomed any intuitive account of analogical reasoning. If language interpretation and rules are purely matters of knowing how, then they are just as capable (or incapable) of articulation and justification as other abilities of pure knowledge how, including (supposedly) the ability to identify important similarities. If Alexander and Sherwin's criticism succeeds in defeating analogical accounts, then it defeats the rule-based accounts as well.

Even without considering Kripkenstein-like concerns about language, a serious difficulty with Alexander and Sherwin's view remains. Discussing the interpretation of legal rules, they claim quite plausibly that "exemplars, definitions, and referents ultimately are interrelated and cannot be neatly

67 *See* NELSON GOODMAN, FACT, FICTION, AND FORECAST 74 (4th ed. 1983).

68 *See* SAUL KRIPKE, WITTGENSTEIN ON RULES AND PRIVATE LANGUAGE: AN ELEMENTARY EXPOSITION (1982).

69 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 161. I think this conclusion is neither correct nor universally drawn, but that's beside the point. See ALLAN F. GIBBARD, MEANING AND NORMATIVITY (2012); TED SIDER, WRITING THE BOOK OF THE WORLD 21-44 (2011); David K. Lewis, *New Work for a Theory of Universals*, 61 AUSTL. J. PHIL. 343 (1983), for more convincing responses. Should Alexander and Sherwin reverse course and adopt one of these approaches that I favor, their argument against analogy would be made more consistent, as rule extraction would not bottom out in knowledge-how. Still, their argument would not be convincing. I have argued *supra* at pp.20-21 that even purely intuitive analogy can still meet the normative requirements posited by Alexander and Sherwin. Moreover, the supposition that analogy must be understood as knowledge-how was granted only for the sake of argument. I think it can be characterized using knowledge-that. See the references at *supra* notes 34 and 37.

opposed."[70] An exemplar is useless without some sort of similarity metric to determine to which objects it is relevantly similar. Further, relevant similarity plays a critical role in the standard theory of interpretation of subjunctive conditionals. Following Lewis[71] and Stalnaker[72] the truth value of a subjunctive conditional is determined by the truth of the consequent in the possible world (or worlds, for Lewis) that both satisfies the antecedent of the conditional and is most relevantly similar to the actual world. To determine which world (or worlds, for Lewis) this is requires a similarity metric of the sort rejected by Alexander and Sherwin.[73] For example, if we want to evaluate the assertion "if Nixon pushes the launch button, then there would have been a nuclear war," we consider a possible world that is most relevantly similar to ours – having the same casual laws, for example– except in this world Nixon pushes the launch button. If this most relevantly similar world is one where a nuclear war ensues, then the assertion is true. A court may use such conditionals in its opinion and thus even rule extraction depends, in part, on judgments of relevant similarity.

Hence, the psychologically based objections to judicial reasoning as analogical reasoning all fail to show that an analogical theorist is worse off than the rule theorists raising the objections. I end this section on a cautionary note: this section contains a great deal of speculation and stipulation and very little empirical evidence regarding the mental states required for precedential constraint. A theorist can stipulate that precedential constraint requires any mental states she wishes, but if no actual judicial

70 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 149.
71 DAVID K. LEWIS, COUNTERFACTUALS (1973).
72 ROBERT C. STALNAKER, CONTEXT AND CONTENT (1999).
73 In fact, the notion of "relevance" which Alexander and Sherwin find so troubling with respect to analogical reasoning lies at the heart of pragmatics, from the seminal work of Grice, *see* H. Paul Grice, *Logic and Conversation*, *in* THE LOGIC OF GRAMMAR 64 (Donald Davidson & Gilbert Harman, eds., 1975), to contemporary accounts such as Roberts' account that treats relevance to the question under discussion as an important constraint on interpretation, *see* Craige Roberts, *Information Structure in Discourse: Towards an Integrated Formal Theory of Pragmatics*, 49 OHIO STATE UNIVERSITY WORKING PAPERS IN LINGUISTICS 91 (1996); Craige Roberts, *Solving for Interpretation* (2011), http://www.ling.ohio-state.edu/~croberts/Solving_for_interpretation.Oslo.paper.pdf. This should not come as a surprise. From the lofty philosophical heights of various paradoxes of meaning to more mundane issues of anaphora resolution, language interpretation faces the same difficulty as analogical reasoning: a host of meanings (for language) or mappings (for analogy) are possible and we need to (and often do) pick just one.

behavior meets these requirements she has designed a theory unfit for our (explanatory) purposes. I have tried to show that one can maintain an analogical theory while accepting most of the speculative psychology offered by the rule theorists. Whether these speculations are accurate is a question for psychologists, not dilettantes like me. In the next section I take up a more normative criticism of analogical theories that a philosopher is better suited to address.

6. Distinguishing as Part of Judicial Reasoning

In addition to the critiques dismissed above, analogical theories of judicial reasoning have been attacked as part of broader arguments against all theories that attempt to account for the practice of distinguishing, whether or not those theories depend on judgments of similarity. This broader argument is as follows:

> (P1) Distinguishing is incompatible with precedential constraint. That is, a consistent theory can account for precedential constraint or distinguishing, but not both.
>
> (P2) Any consistent theory of judicial reasoning is better than any inconsistent one.
>
> (P3) Precedential constraint is a more important aspect of judicial reasoning than distinguishing.
>
> (P4) Theories of judicial reasoning that explain the more important aspects of judicial reasoning are better than theories that fail to explain those aspects.
>
> (C1) Any consistent theory that explains precedential constraint is better than any theory that accounts for distinguishing, because such a theory is either inconsistent or fails to explain precedential constraint.

The argument is valid, so only the truth of the premises remains open for objection. I am willing to grant (P2) and (P4) for the sake of argument. The most controversial premises are (P1) and (P3).

Regarding (P3), distinguishing is in some sense dependent on precedential constraint, as there is no need to distinguish without a norm of deference to past cases. Yet it is unclear how that justifies treating distinguishing as less important for judicial reasoning. One might think it is as important as precedential reasoning itself. Further, one might agree that distinguishing is less important than

precedential constraint, but maintain that it is still essential to judicial reasoning. If one accepts that position, then the conclusion of the argument is skeptical: judicial reasoning is incapable of being adequately theorized.

(P1) is supposedly supported by the following argument[74]:

(P5) If a judge has the power to distinguish cases, then she may distinguish cases on the basis of any factual difference.

(P6) Between any two cases there is at least one factual difference.[75]

(C1) Hence a judge with the power to distinguish may distinguish any case from any other case.

(P7) If a judge may distinguish a current case from all past cases, then she is not under precedential constraint with respect to the current case.

(C2) Hence, if judge has the power to distinguish, then she is not under precedential constraint with respect to any case. That is she is not constrained by precedent at all.

The argument is valid and the only controversial premise seems to be P5. Does the practice of distinguishing allow any factual difference be used to distinguish cases? I think not. We rarely, if ever, see cases distinguished based on the first name of the plaintiff or the day of the week on which the suit was filed. If we did see such a case, we would suspect that something disingenuous was afoot. A judge who distinguishes a case because the plaintiff is named "Tom" and not "John" seems no more engaged in judicial reasoning than one who decides a case in favor of one party because of a bribe.

Unfortunately, explaining what makes a factual distinction legally relevant is no easy task. For example, a norm that permits distinguishing a past case only when the court's new rule justifies the result in the previous case[76] is not sufficient, because any new rule either covering the current case with an exception clause for the previous case or covering the previous case with an exception clause for the

74 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 80-7.
75 Usually this premise is replaced by the stronger premise that between any two cases there are infinitely many factual differences. *See* Schauer, *Analogy*, *supra* note 5. I use the weaker claim because it is all that validity requires.
76 Raz, *supra* note 26, at 186–188.

current case is permitted.[77] There are of course other proposed (and possibly successful) explanations, a complete survey of which is beyond my ken. Instead, I want to focus on one possible explanation that relates to analogical theories.

There is an obvious parallel between the search for relevant similarities discussed above and the difficulty of trying to determine which facts can distinguish cases. The facts we are looking for are simply the absence of a relevant similarity or the presence of a relevant dissimilarity. If the sale of pornography is a relevant similarity in nuisance actions, then the fact that the current case involves a children's bookstore is grounds for distinguishing the current case from a past precedent involving an adult bookstore, even if that past case seemed to contain a rule about bookstores of all types. If the argument of the previous sections is sound, then similarity metrics may be able to explain distinguishing without permitting any factual difference to distinguish two cases.

A more convincing response is available if we shift from theories dealing with relevant factual similarities, a technical term from cognitive psychology, to talking about reasons, an everyday concept with which we are more familiar.[78] However, I must note that I use "reason" in a fairly thin sense in that a reason is just a fact that favors one party or the other in a two party controversy.[79] I think this sense is familiar to non-specialists, but it's more controversial amongst philosophers. A sketch of a reason-based theory of judicial reasoning follows.[80]

Consider again Betty's case against Abel and his adult bookstore. Suppose the neighborhood

77 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 85–87.

78 One might suspect that relevant similarities are just the same as reasons, in which case we are just shifting to a more familiar vocabulary. Others might suspect that the shift to reasons is more substantial. Either way, both types of theories are "analogical" according to definition adopted *supra* at p.8 from Alexander and Sherwin. Hence what follows is an example of analogical response to the criticism.

79 *See* Kevin D. Ashley, *Reasoning with Cases and Hypotheticals in HYPO*, 34 INTERNATIONAL JOURNAL OF MAN-MACHINE STUDIES 753 (1991); John F. Horty, *Rules and Reasons in the Theory of Precedent*, 17 LEGAL THEORY 1 (2011) [hereinafter Horty, *Rules and Reasons*]; Lamond, *Do Precedents*, *supra* note 30.

80 This sketch is a simplified version of the accounts of Horty and Lamond. *See* Horty, *Rules and Reasons*, *supra* note 78; Lamond, *Do Precedents*, *supra* note 30.

contains a number of day care centers. The large number of small children who could wander into the bookstore and accidentally see pornography is a reason in Betty's favor. Suppose Abel only operates his bookstore at night when the daycare centers are closed. This is a reason in Abel's favor.

Precedential cases tell us the relative weight of reasons in favor of one party compared to the reasons in favor of the other party. We can label reasons for the plaintiff "Rp1, Rp2, Rp3…" and reasons for the defendant "Rd1, Rd2, Rd3…." In a precedential case ruling for the plaintiff involving only Rp1, Rp2, Rp3, Rd1, Rd2, we can understand a precedential "rule" to be that Rp1, Rp2, and Rp3 require ruling for the plaintiff.[81] The theory also stores the information that Rd1 and Rd2 are insufficient to defeat this rule. Thus, if another case arises with only those five reasons, it must be decided in favor of the plaintiff. Further, if another case arises involving a superset of the reasons for the plaintiff and a subset of the reasons for the defendant, i.e. involving at least Rp1, Rp2, and Rp3 and at most Rd1, and Rd2, then the case must be decided in favor of the plaintiff. For example, a case involving only Rp1, Rp2, Rp3, and Rd2 must be decided in favor of the plaintiff.

In this framework, only *reasons* can distinguish cases. Hence, the argument against distinguishing looks a bit different. Let's call any reason present in the current case but not present in the past cases a novel reason. Adjusting the relevant premises, P5 and P6, in the most natural way yields,

> (P5') If a judge has the power to distinguish cases, then she may distinguish cases on the basis of any novel reason.
>
> (P6') Between any two cases there is at least one novel reason.

Yet (P5′) is clearly false, because just any novel reason cannot justify distinguishing the cases. The novel reason must support the party who is going to win the current case. For example if the precedent

81 Horty's more recent work, Horty, *Rules and Reasons*, *supra* note 30, allows the extraction of rules that do not involve all the reasons for the prevailing party, *contra* Horty, *The Results Model*, *supra* note 16. This distinction is not relevant for this sketch.

held for the defendant but the current judge distinguished it and held for the plaintiff, then the judge must have found a novel reason in favor of the plaintiff. The properly modified premises take this into account:

> (P5") If a judge has the power to distinguish cases, then she may distinguish the current case based on any novel reason in favor of the party she wants to prevail.
>
> (P6") Between any two cases there is at least one novel reason in favor of the party that the judge wants to prevail.

The justification for (P6") is that if the judge thinks the precedential case is wrongly decided for the plaintiff, then any factual difference between it and the current case is a reason in favor of the defendant (and vice-versa). Alexander and Sherwin write, "[if the current judge] believes that the precedent judge's reasoning was wrong…then the reason generated by the new fact…will always be 'stronger' than the reason for the precedent outcome, from [the judge's] point of view." [82]

However, it is implausible that facts can be so easily converted into reasons. If a female plaintiff wrongly prevailed in a past case, then the fact that Abel, the defendant in the current case, is a man is not a reason in his favor. Indeed, an attempt to distinguish on those grounds strikes us as disingenuous– "*that* can't be the *real* reason you ruled for Abel," we want to say.

More generally, this criticism mirrors the failed criticism of analogical reasoning. The alleged problem for analogical reasoning was that the judge could find any of the multifarious dissimilarities relevant if she wanted to decide contrary to precedent. Here, the alleged problem is that any of these dissimilarities are reasons permitting the judge to rule contrary to precedent. However, given our reason based account, we can offer an even stronger response than the general one provided in Sections III-IV. Instead of giving a split-mind response[83], we could follow Scanlon[84] and claim that the

82 Alexander & Sherwin, *Demystifying*, *supra* note 1, at 83.
83 See *supra* pp.13-14.
84 (Steven Arkonovich, *Defending Desire: Scanlon's Anti-Humeanism*, 63(3) PHILOS. PHENOMENOL. RES. 499–519 (2001); THOMAS SCANLON, WHAT WE OWE TO EACH OTHER (1998).

perception of reasons generates desires rather than vice-verse. With the identification of reasons as the first stage of practical reasoning, concerns that later stages will influence this identification are ill-founded. A more plausible variant of this theory is available because we are dealing with the influence of a *judgment* rather than a *desire*. While the claim that every desire is preceded by an identification of reasons may be counterintuitive, the claim that every judgment is preceded by an identification of reasons is less so. It seems plausible to assume that making a judgment involves a comparison of the reasons in favor of each option. Thus, if one has a judgment that the case should be decided for the plaintiff in absence of precedential constraint, then she must already have (or at least think she already has) identified all the reasons in favor of each side.[85] This means the identification of the factors in the case precedes, and hence is not influenced by, the judgment about how the case should be decided in absence of precedent.

Admittedly, this reply only works if we hold the reasoner's set of reasons static. If the reasoner is able to revise the set of reasons after making a judgment, then it is possible for the judgment to cause the reasoner to revise the set of reasons by taking any (or nearly any) new fact as a reason in favor of the judgment.[86] Revising the set of reasons in this way means that a distinction is always available to prevent a judge from deciding the case contrary to her lights. Although it seems plausible that reasoners *sometimes* engage in post hoc revisions of what they take to be the reasons in favor of a conclusion,[87] this merely shows that it is possible for reasoning to go astray. I know of no account of

85 Perhaps one only considers the "most relevant" reasons in some sense– there may be hundreds of reasons at issue in when I decide what pants to wear, but a decision must be made before I am late for work. Still, the point here remains: the identification of relevant reasons precedes judgment.

86 Note that this involves the judge genuinely taking the novel fact to be a reason, and the worry is that this will inevitably happen if she finds the precedent unfavorable. A more devious post-hoc strategy may be employed by the judge, wherein she uses the novel fact to distinguish the cases despite not thinking the fact is actually a reason for the party she favors. Similar sorts of deception are available under a rule-theorist picture wherein the judge employs disingenuous semantic claims. Neither I, nor the rule theorists, are interested in giving an account of these sorts of reasoning.

87 See Haidt, *supra* note 43, indicating that using reason to create post hoc justifications for an intuited conclusion is fairly common.

legal reasoning, rule-based or otherwise, that is immune from that criticism. It's plausible that even general moral reasoning is post hoc at times,[88] and it would be naive to think that interpreters of rules do not sometimes reinterpret rules in light of the decision they want to reach. The rule-theorist must show that these post-hoc revisions of the set of reasons are guaranteed (or at least more likely) to occur than the parallel revisions in rule meaning.

The final worry regarding the reason based account concerns the characterization of reasons. Suppose we have a past case involving a 305 pound pet lion, the keeping of which was held to be a nuisance. Suppose the current case is exactly the same except it involves a 300 pound lion. In the past case the weight of the lion was clearly a reason in favor of holding that it is a nuisance. But how should this reason be characterized? If we characterize it as the lion's being 305 pounds, then this factor is not present in the current case and the judge could distinguish it. If we characterize it as the lion's being over 250 pounds, then this factor is present in the current case and the past case controls the result. If we characterize it as the lion's being very large, then this factor is arguably present in the current case and the past case controls the outcome.

This is a very difficult problem, and I only have a sketch of an answer. We ought to look at how the opinion in the past case characterized the size of the lion. It is the reasons found in the opinion that matter for precedent. If the opinion never says the lion is 305 pounds, instead only discussing a "very large lion," then the lion's being 305 pounds cannot be a reason from the precedent case, even if the lion was in fact 305 pounds. This obviates some difficulties, but not all of them. The past opinion might say that the lion was 305 pounds, but this of course implies that the lion was over 250 pounds. Should we understand that implication as a reason against the lion-owner? I am inclined to say no, but the matter requires a much more thorough investigation. Further, the past opinion may say that the lion

88 *See* Haidt, *supra* note 43.

was 305 pounds and also characterize it as a "very large lion" or spend time discussing "the over 250 pound animal." Somehow we must decide how to characterize the reason (or reasons) involved.

As was the case with the most difficult of the prior objections[89], my strategy is to show that this problem is not unique to the criticized theory. A rule theory not only has to deal with difficulties in ascertaining the meaning of words in an opinion,[90] it also must deal with difficulties in determining which of those words compose the rule. For example, it must determine whether implications are part of the rule, whether the rule from the aforementioned case is one regarding lions over 250 pounds, or 300 pound lions, or large lions. Whatever addresses these difficulties for the rule theorist should address them for the reason based theorist as well.

7. Conclusion

The rule-theorists have pressed a number of pointed objections upon analogical theories, namely: analogical theories cannot explain the psychological states required for precedential constraint; analogy is either not a distinct form of reasoning or arbitrary and incapable of justification; analogical theories are incompatible with precedential constraint because they permit distinguishing. I have tried to refute these criticisms by showing that they are ultimately at least as damning for rule theories as they are for analogical ones. The refutation is especially convincing when we consider reason based analogical accounts.

Some will likely find this comparative strategy unsatisfying, as it does not actually solve the problems that arise for analogical theories. However, I think the subtly and complexity of the topic demands a cautious approach. Only those who are foolish or dogmatic think their preferred theory of legal reasoning faces no difficulties. The other options are either to remain skeptical until a perfect

89 *Supra* at pp.19-21.
90 Discussed *supra* at p.19.

theory comes along, or to try and work with the best theory one can find. The former requires the patience of Job, the latter requires comparisons. With some luck, the results of the comparisons may even move us closer to the perfect theory.

For now we can conclude that analogical theories are at least as well off as the rule theories with respect to the defects alleged by the rule theorists. Further, they have the virtue of differentiating the process of distinguishing from that of over-ruling. Thus analogical theories are superior to rule theories, in particular the reason based analogical account.

Chapter 2

Judicial Reasoning and Nonmonotonic Logic

1. Introduction

In this chapter I argue for a theory of judicial[1] reasoning that treats legal rules as rules within a nonmonotonic logic. In the next section, I briefly explain the general benefits of adopting a nonmonotonic approach. I then address a prominent criticism of nonmonotonic approaches raised by Richard Holton.[2] In defusing this critique, I show that Holton's theory suffers from serious technical problems. This leads to the presentation of my preferred way of formalizing legal reasoning, which is treating legal rules as default rules involving reasons. In the final sections I improve upon previous versions of this theory by adding an additional level of default rules.

First, however, I should briefly clarify the sort of rules that I aim to characterize. I am focused on judicial reasoning, and hence I am focused on the rules involved in that process. I call these rules "legal rules," but some may find that misleading. How much a theory of judicial reasoning can tell us about the concept of law is an interesting question that I address in the next chapter, but here too its shadow looms. For example, in what follows I will object to theories of judicial reasoning that involve rules that are implausible given human psychology (or even a

[1] There are many agents who reason about the law, including non-lawyers. Judges are but one sort of such agents.
[2] Richard Holton, *Modeling Legal Rules*, *in* PHILISOPHICAL FOUNDATIONS OF LANGUAGE IN THE LAW 165–183 (Andrei Marmor & Scott Soames eds., 2011); Garrett Cullity & Richard Holton, *Particularism and Moral Theory*, 76 PROC. ARISTOTELIAN SOC. SUPPL. VOL. 169–209 (2002).

fairly idealized psychology). But there is no prima facie reason to think that the concept of law (if it involves rules at all) must involve psychologically plausible rules. In a Platonist vein, one might argue that the concept of law involves rules to which humans only have partial access or of which humans only have partial knowledge. "These," he may say, "are the real legal rules." He may consistently hold (i) his view of the concept of law while also holding (ii) that the practice of legal reasoning is best understood in terms of default rules in a nonmonotonic logic. He already accepts the main conclusion of this article.

However there is a temptation to let (i) bleed into (ii), and think that since the "real" legal rules are monotonic, so must the rules involved in judicial reasoning. This notion I hope to disabuse–regardless of the truth of (i), you should accept (ii). On the other hand, there is similar temptation to let (ii) to bleed into (i), and think that since the rules involved in judicial reasoning are nonmonotonic, so are the "real" legal rules. I must admit that I hope this article strengthens that temptation by showing how nicely the default account handles the practice of judicial reasoning.

2. A Primer on Nonmonotonic Logics for Non-specialists

A logic aims to formalize the content of valid reasoning, moving from a set of premises to a set of conclusions. The most familiar logics are monotonic. Let *P1* be the initial set of premises, *C1* be the set of conclusions that can be inferred from *P1*, and *P2* be the set of additional premises. Monotonicity is the requirement that the set of conclusions that can be inferred from *P1* ∪ *P2* must be a superset of *C1*. That is, adding a premise to initial premises can only change the set of entailed conclusions by expanding it.

As one might expect, a nonmonotonic logic is a logic without a requirement of monotonicity. In these logics, adding premises may yield a reduced set of entailed conclusions.

Reusing the prior variables, the set of conclusions that can be inferred from *P1* ∪ *P2* need not be superset of *C1*. An example helps to illustrate the distinction. Suppose our premises are as follows: (1) Tweety is a bird; (2) Birds fly. Further, suppose from these premises we infer the conclusion (C) Tweety flies. Now suppose we add the following to our set of premises, (3) Tweety is penguin. In a monotonic logic, we cannot get rid of (C), the conclusion that Tweety flies. So long as (C) can be inferred from (1) and (2), it can be inferred from (1), (2), and (3). On the other hand, a nonmonotonic logic could allow us to infer (C) from (1) and (2) but prevent us from inferring (C) from (1), (2), and (3).

Nonmonotonic logics are useful (arguably required) for formalizing practical reasoning. Consider driving from your home to your office. You think that if you turn the key, then the car will start. But you also believe that if you turn the key and the battery is dead, then the car won't start. Further, you believe that if you turn the key and the starter is broken, then the car won't start. In fact, depending on your level of automotive expertise, you may have many beliefs of the form, "if I turn the key and *X*, then the car won't start." In a monotonic framework your beliefs are incompatible in the event that you turn the key. For example, if you turn the key and the battery is dead, then a monotonic logic will have you infer both that the car will start and that the car won't start. The natural response of a logician committed to monotonicity would be to formalize the belief "if you turn the key then the car will start" as a belief that if you turn the key and the battery is not dead and the starter is not broken and…then the car will start. Yet this poses both descriptive and logical problems.

On the descriptive side, it seems strange to describe anyone as acting on such an unwieldy belief. The ellipsis contains thousands of preconditions that never seem to cross your mind. You do not wonder whether the cylinders are filled with water or if the engine has been

removed from the car before you turn the key, although you believe that the car won't start in either of those scenarios. Introducing a distinction between dispositional and occurrent beliefs does little to reduce the force of this problem. Splitting the antecedent of the unwieldy belief into a great many dispositional and a few occurrent beliefs does not reveal what the many dispositional beliefs are. Characterizing these beliefs remains a difficult challenge in explaining our open-ended, practical knowledge about starting a car.

This problem becomes an intractable difficulty when we move from the project of describing a single act of practical reasoning to the project of formalizing practical reasoning in a large domain and making predictions (or claims) about how agents will (or ought to) reason. This is, of course, the project of formalizing practical reasoning with which many in logic and artificial intelligence engage. A conditional belief with a plethora of preconditions in the antecedent has no place in such a system. When acting on this conditional belief the agent has to check whether each precondition obtains. After all, if I know the engine is removed, then I won't turn the key to start the car. Yet, there may be an infinite number of such preconditions. Further, even if the number of preconditions is finite, the conditional may still require vast amounts of computational power and time to process. And all this happens before you leave your driveway.

This difficulty is known as the "qualification problem,"[3] and I will discuss it in detail shortly. A nonmonotonic approach allows us to model your belief that if you turn the key, then the car will start without listing all the preconditions in the antecedent. For example, we could treat "if you turn the key, then the car starts" as a default rule which is defeated by the presence of the negation of a precondition (i.e. an exception). This is the main virtue of nonmonotonic accounts of general practical reasoning. This and related virtues have been discussed in detail in

[3] See Michael Thielscher, *The Qualification Problem*, *in* CHALLENGES FOR ACTION THEORIES 85–118 (2000).

elsewhere[4] , and there is no need to rehearse that discussion here. Instead, I want to focus on these virtues in the particular context of legal reasoning.

I should note that there are many species of nonmonotonic logic. Some involve rules with exceptions or *ceteris paribus* clauses, [5] while others use default rules.[6] The virtues offered in the following section hold for all species of nonmonotonic logic. I develop a version using default rules in Sections 5 and 6, but that is largely because I find default systems easier to work with. It's likely that equivalent formalizations are available outside of default logic.

3. The Virtues of Nonmonotonic Logics in the Legal Domain

Theorists of legal reasoning face a difficult problem in determining what to make of legal rules, especially the rules (if any) that come from past cases in common law systems.[7] One source of trouble, although certainly not the only one,[8] is that legal rules seem subject to exceptions. For example, we might start with the rule (R_1) that an oral agreement to perform a service in exchange for money is a valid contract. However, R_1 does not apply if the service

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[4] See John F Horty, *Nonmonotonic Logic*, *in* THE BLACKWELL GUIDE TO PHILOSOPHICAL LOGIC 340–49 (L Goble ed., 2001); G. Antonelli, *Non-monotonic Logic*, *in* THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N Zalta ed., 2012); Richmond H Thomason, *Logic and Artificial Intelligence*, *in* THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N. Zalta ed., 2012); G BREWKA, NONMONOTONIC REASONING: LOGICAL FOUNDATIONS OF COMMONSENSE. (1991).

[5] John McCarthy, *Circumscription — A Form of Non-Monotonic Reasoning*, 13 ARTIF. INTEL. 27–39 (1980); Arnold Silverberg, *Psychological Laws and Non-Monotonic Logic*, 44 ERKENNTNIS 199–224 (1996).

[6] JOHN F HORTY, REASONS AS DEFAULTS (2012).

[7] See Chapter 1; LARRY ALEXANDER & EMILY SHERWIN, DEMYSTIFYING LEGAL REASONING (2008); JOSEPH RAZ, THE AUTHORITY OF LAW (1979); Larry Alexander, *Precedential Constraint, Its Scope and Strength: A Brief Survey of the Possibilities and Their Merits*, *in* ON THE PHILOSOPHY OF PRECEDENT (Thomas Bustamante & Carlos Benal Pulido eds., 2012); Grant Lamond, *Do Precedents Create Rules?*, 11 Leg. Theory 1–26 (2005);); Frederick Schauer, *Precedent*, *in* ROUTLEDGE COMPANION TO PHILOSOPHY OF LAW 123–136 (Andrei Marmor ed., 2012).

[8] The interpretation of rules is another well-spring of trouble. The difficulties there are related to, but distinct from, the difficulties addressed by nonmonotonic approaches. The interpretative problem asks whether a bicycle is included in the meaning of "vehicle" given a rule that states "vehicles are prohibited in the park." See H.L.A. Hart, *Positivism and the Separation of Law and Morals*, 71 HARV. LAW REV. 593–629 (1958). In logical terms, the concern regards the extensions of predicates in the rule. The problem of exceptions comes later; after we fix the meaning of the rule we must ask how to represent it given that sometimes it does not hold. For example, if the park is on fire, then fire trucks are permitted in the park. In this instance there is no question of whether fire trucks are vehicles, they clearly are. The question is, rather, how to maintain the rule despite the existence of exceptions. This is where nonmonotonic approaches come into play.

cannot be performed in less than a year.[9] Nor does R_1 apply if the service is an illegal act, such as a forging a document.[10] Likewise, no valid contract arises if one of the parties is legally incapacitated at the time of the agreement.[11] Even this does not exhaust the set of exceptions, let alone the exceptions to the exceptions.[12]

We could try to understand the legal rules as having the preconditions/exceptions built in. The problems with using this strategy in the legal context are similar to but more severe than the problems this strategy faces in the general context of practical reasoning. On the descriptive side, we are no longer trying to represent beliefs locked in the black-box of an agent's mind. I have urged that it is unlikely that agents form explicit beliefs containing hundreds of preconditions when engaged in practical reasoning. Unfortunately, there are at present no psychological methods for demonstrating the absence of such beliefs. In the legal case the rule (the analog of the belief) is much more accessible because we typically expect the legal rule to be announced or written down. With precedential rules, we expect the rule to be written in or at least extractable from prior court opinions.[13] Yet we do not see courts announcing rules with dozens of explicit exceptions. For example, in *Police Department v. Mosley* the United States Supreme Court reiterated the principle that "above all else, the First Amendment means that

[9] See THE RESTATEMENT (SECOND) OF CONTRACTS § 130 (1981).
[10] See *id*. § 178.
[11] See *id*. § 12.
[12] E.g., *id* § 130.
[13] Much ink has been spilled over how the extraction process works. See Larry Alexander & S Prakash, *Is That English You're Speaking? Some Arguments for the Primacy of Intent in Interpretation*, 41 SAN DIEGO L. REV. 967 (2004); Archibald Cox, *Judge Learned Hand and the Interpretation of Statutes*, 60 HARV. L. REV. 370 (1947); Ronald Dworkin, *Law as Interpretation*, 60 TEX. L. REV. 527 (1981); Daniel A. Farber, *The Inevitability of Practical Reason: Statutes, Formalism, and the Rule of Law*, 45 VAND. L. REV. 533 (1992); Oliver Wendell. Holmes, *The Theory of Legal Interpretation*, 12 HARV. LAW REV. 417 (1899); William M. Landes & Richard A. Posner, *Legal Precedent: A Theoretical and Empirical Analysis*, 19 J. LAW ECON. 249 (1976); John O. McGinnis & & Michael B. Rappaport, *Reconciling Originalism and Precedent*, 103 NW. U. L. REV. 803 (2009); Richard A. Posner, *Economics, Politics, and the Reading of Statutes and the Constitution*, 49 U. CHI. L. REV. 263 (1982); ANTONIN SCALIA, A MATTER OF INTERPRETATION: FEDERAL COURTS AND THE LAW. (1997). I hope to remain as neutral as possible on this point.

government has no power to restrict expression because of its message, its ideas, its subject matter, or its content [citations omitted]."[14] The Court neglected to enumerate the myriad exceptions for speech "directed to inciting or producing imminent lawless action and likely to incite or produce such action,"[15] speech containing a false statement of fact,[16] obscene speech,[17] speech that visually depicts child pornography,[18] and speech that constitutes fighting words[19].[20]

Those opposed to nonmonotonic approaches may argue that legal rules do contain all their own preconditions, but those preconditions are not explicit in the legal texts. In everyday linguistic interactions, a great deal of information is not explicit in what is said or written, but supplied by the surrounding context, such as the referents of pronouns, the content of presuppositions, and (arguably) Gricean implicatures.[21] So, the objection goes, these same interactions between linguistic context and the legal texts supplies the preconditions. Here we see the convergence of two issues I have tried to keep separate: the extraction of legal rules and their logical status as monotonic or nonmonotonic. In considering this objection, I will try to be as neutral as possible regarding extraction.

I agree that context is extremely important to communication in general and the case of legal texts is no exception. However, this objection places too heavy a burden on the notion of

[14] Police Dep't v. Mosley, 408 U.S. 92, 95 (1972).
[15] Brandenburg v. Ohio, 355 U.S. 444, 448 (1969).
[16] See Gertz v. Robert Welch, Inc., 418 U.S. 323 (1974).
[17] Miller v. California, 413 U.S. 15 (1973).
[18] New York v. Ferber, 458 U.S. 747 (1982).
[19] Chaplinsky v. New Hampshire, 315 U.S. 568 (1942).
[20] This list certainly does not exhaust the subtleties of free speech protection. For example, speech intended to inflict emotional distress is protected when the target is a public figure, but may not be when the target is a private individual. Hustler v. Falwell, 485 U.S. 46 (1988).
[21] ROBERT C STALNAKER, CONTEXT AND CONTENT (1999); David K Lewis, *Index, Context, and Content*, *in* PHILOSOPHY AND GRAMMAR (Stig Kanger & Sven Öhman eds., 1980); HANS KAMP & UWE REYLE, FROM DISCOURSE TO LOGIC: INTRODUCTION TO MODEL THEORETIC SEMANTICS OF NATURAL LANGUAGE, FORMAL LOGIC AND DISCOURSE REPRESENTATION THEORY (1993); Herbet Paul Grice, *Logic and Conversation*, *in* THE LOGIC OF GRAMMAR 64–75 (Donald Davidson & Gilbert Harman eds., 1975).

context. According to the traditional picture emanating from Austin,[22] a mismatch between context and utterance produces infelicity. Austin's original formulation dealt with performative utterances, such as a judge pronouncing a sentence on a criminal. In pronouncing the sentence, the judge is sentencing the criminal, and hence it is difficult (or even impossible, according to Austin) to give the pronouncement a truth-value. Rather, we evaluate whether the pronouncement is appropriate in its context. For example, if the judge is simply saying, "you are sentenced to six years without parole" at a criminal in the street, then this "sentencing" is infelicitous.

This account of infelicity as the status of performative utterances that were contextually illegitimate–but not false!–was extended to non-performative utterances, starting with the work of Karttunen[23] and Stalnaker[24]. The general idea from these extensions is that infelicity can arise when an utterance requires something that the context fails to supply. For example, "the king of France is wise," requires a context in which France is a monarchy. An utterance of that sentence in a context containing facts about France's current republican form of government is infelicitous. Further sources of infelicity include the relevance of the utterance to the context. Consider (2) uttered in response to (1):

(1) A: What's for dinner?
(2) B: The capital of Delaware is Dover.

(2) is an infelicitous response to (1) because it does not even remotely address the question. Similar problems can arise without questions, consider (2) in response to (3):

(3) A: I'm thinking about getting pregnant.
(2) B: The capital of Delaware is Dover.

[22] JOHN L AUSTIN, HOW TO DO THINGS WITH WORDS. (1962).
[23] Lauri Karttunen, *Presuppositions of Compound Sentences*, LINGUIST. INQ. 169–193 (1973).
[24] Robert C Stalnaker, *Pragmatic Presupposition*, *in* SEMANTICS & PHILOSOPHY 197–219 (M. Munitz & D. Unger eds., 1974).

Without a more robust context, (2) is again infelicitous. These cases do not exhaust the spectrum of infelicity, but I hope they give the reader a sense of how, as the name suggests, infelicitous utterances strike the hearer/reader as strange or out of place.

Turning back to the theorist who thinks context supplies all the exceptions, consider the attorneys who read *Mosley* without gleaning that there are exceptions for fighting words and so on. I suspect there were quite a few of these, especially in 1972 when the opinion was released. They must be either misunderstanding the text or reading it in the wrong context (or both). We might expect that these attorneys found the opinion, or the relevant parts of it, infelicitous, with the thought that a misunderstanding of text or inadequate context is likely to produce a mismatched context and text, leading to infelicity. Yet it seems doubtful that attorneys found the opinion infelicitous, – it is relatively easy to read the *Mosley* opinion without discerning all the exceptions.

On the other hand, it's possible that the attorney's mistakes were such that the opinion remained felicitous. That is, that the misunderstood context and utterance still matched up. For example, consider a context where I think you are talking about one man using the pronoun "he" and you are trying to talk about another man. I am certainly misunderstanding your utterance, but it does not seem out of place. Similarly, we could have a case where you said "he" but I misheard "she," and yet your utterance still seems sensible. It is possible that these attorneys find themselves in a similar kind of misunderstanding. Still, every case is supposed to include a rule with all exceptions built in. Therefore these misunderstandings occur every time an attorney reads a case without discerning the exceptions or finding it infelicitous. It's unlikely that disparate misunderstandings and bad contexts just happen to consistently matchup. The objector seemingly must hold that attorneys systematically commit linguistic errors when reading cases,

but this demands an explanation. Even if one is provided, the resultant theory looks inelegant compared to the nonmonotonic alternatives.

A further difficulty the objector faces is explaining just what the context contains. One attempt, in the spirit of Dworkin's approach, is to say it includes the results of past cases, but that still would not yield the exceptions from *Gertz* and *Ferber*. Further, even that insufficient attempt imports a huge amount of information into the context on top of the already substantial context needed to extract the rules without exceptions.[25]

Moving more towards Dworkin's full blooded theory,[26] one might argue that rule extraction requires looking for the best coherent theory that justifies the institutional history of the relevant legal system.[27] If fully executed, this process should yield monotonic rules that contain all their preconditions, i.e. exception-free monotonic rules. A complete critique of the Dworkin's view would be out of place here,[28] but two points should be made. First, Dworkinian theories allow for the troubling possibility that everyone involved with the legal system–judges, legislators, citizens–shares the same beliefs regarding what the law requires in each case and yet they are wrong in each case.[29] The possibility of widespread error may be acceptable for natural laws and even moral laws, but is much harder to swallow for the laws of the state. Second, this Dworkinian theory *might* be an apt description of his Judge Hercules, an idealized judge with

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[25] I suggest, though certainly have not demonstrated, that the difficulty in extracting rules with all exceptions built-in from legal text using just the tools of linguists and semanticists is what drives many theorists to treat the interpretation of legal texts as a *sui generis* art form, divorced from the techniques used to interpret conversations.

[26] We have only moved toward Dworkin's theory; we have not arrived at it. The theory considered here uses rules, while Dworkin famously rejected legal rules entirely in favor of principles. Ronald Dworkin, *The Model of Rules*, U. CHI. L. REV. 14 (1967). His principles behave suspiciously like nonmonotonic rules, and I will discuss this in detail in Chapter 3.

[27] DWORKIN, *supra* note 26.

[28] The literature for and against Dworkin's theory is vast. A good starting point is Scott J Shapiro, *The "Hart-Dworkin" Debate : A Short Guide for the Perplexed*, *in* RONALD DWORKIN 22–55 (Arthur Ripstein ed., 2007).

[29] See Brian Leiter, Book Review, 56 J. LEGAL EDUC. 675–81 (2006) (reviewing RONALD DWORKIN, JUSTICE IN ROBES (2006) and EXPLORING LAW'S EMPIRE: THE JURISPRUDENCE OF RONALD DWORKIN (Scott Hershovitz, ed., 2006).

unlimited time, intellect, and computational power.[30] Admittedly, some idealization seems required for explanations in all fields.[31] Still, we should be wary if too much idealization is required. If we want to model a judge under more realistic constraints, such as limited time and computational power, then a non-monotonic logic is needed, unless Dworkin's extraction process is much less complicated than it looks.

A third attempt to extract legal rules with all their exceptions follows the approach of Alchourron[32] and parallels the dispositional approach to practical reasoning criticized in the previous section. It takes legal opinions and extracts rules via the rule-maker/judge's dispositions to establish the exceptions. It essentially asks, for all fact patterns, x_1, $x_2 \ldots x_n$, "if x_1 were the case, would the judge apply the rule? …If x_n were the case, would the judge apply the rule?" For comparison, we can characterize the previous approach using linguistic context as asking "what does this sentence/sentences mean in this context?" and Dworkin's interpretivism as asking "what does the best theory of past legal history say?"

This response is similar to strict intentionalism but importantly different.[33] Strict intentionalism uses the judge's dispositions to determine the meaning of terms in a rule. For example, suppose a judge states the following rule in an opinion: "no vehicles permitted in the park." According to strict intentionalism the judge's dispositions with respect to what counts as a vehicle determine the meaning of that term. If the judge would count a fire truck as a vehicle, then fire trucks are prohibited in the park. The approach considered here focuses on the judge's dispositions with respect to what counts as an exception. Suppose the judge from the prior

[30] RONALD DWORKIN, LAW'S EMPIRE 239–40 (1986).
[31] NANCY CARTWRIGHT, HOW THE LAWS OF PHYSICS LIE (1983).
[32] Carlos E. Alchourron, *On Law and Logic*, 9 RATIO JURIS 331–48, 341–44 (1996).
[33] See Natalie Stoljar, *Interpretation, Indeterminacy and Authority: Some Recent Controversies in the Philosophy of Law*, 11 J. POL. PHIL. 470–498, 473 (2003).

example is also disposed not to apply the "no vehicles in the park" rule to a fire truck coming to put out a fire in the park. Then, contrary to strict intentionalism, fire trucks are permitted in the park when there is a fire.

This approach requires the same sort of excessive idealization demanded by Dworkin's view. Even supposing that the judge has determinate dispositions that the agent can discover,[34] it would take enormous time and computational power to determine the judge's dispositions for each possible exception. Returning to the previous example, suppose a future judge is trying to determine whether the "no vehicles in the park" rule prohibits a police car from chasing a suspect in the park. The judge must determine not only whether the previous judge would make exceptions for police cars, but also for fire trucks, bicycles, scooters, skateboards, and so on.[35] It is unrealistic to suppose that real-world legal reasoners engage in such a strenuous process to extract each legal rule. Notice that we cannot suppose that the reasoner extracts the exceptions piece-meal, checking only to see if the current circumstances are exceptional, because this would require either constantly changing rules, which would be no rules at all, or nonmonotonic rules. Instead all the exceptions have to be extracted with the rule.

Admittedly, I have not canvassed every possible monotonic alternative, but I hope the previous discussion casts doubt on the prospects of such theories. There is a more general problem facing all such theories in realm of the common law arising from the fact that failing to determine all the exceptions for a rule is not a judicial vice but rather a virtue. A parallel with Bayesian decision theory is illustrative. A descriptive Bayesian is not wedded to the idea that

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[34] For an interesting, though not entirely convincing argument against this see Natalie Stoljar, *Counterfactuals in Interpretation: The Case against Intentionalism*, 20 ADEL. L. REV. 29 (1998).

[35] I should stress that there is nothing inherently monotonic about the various procedures for determining the exceptions. One could have a nonmonotonic theory in which a rule may only be defeated in cases where the creator of the rule would have made an exception or cases where the best coherent theory of legal history supports making an exception. The advantage of the nonmonotonic theory is simply that these exceptions need not be determined in order to extract the ratio (as a default rule).

reasoning agents conditionalize explicitly and consciously. Rather, he is committed to the idea that the Bayesian framework is the best explanation of particular decisions and dispositions of real-world agents. For example, he may take the framework to explain agent's willingness to accept certain wagers.

Now suppose the Bayesian theory predicts that a rational agent will accept wager 1, given his acceptance of other wagers 2 and 3. Yet, when we go into the lab, an actual person does not accept wager 1 despite accepting wagers 2 and 3. Is the Bayesian theory thereby defeated? Hardly. A good Bayesian might say, "This is simply an error in that subject's reasoning. Just as speakers occasionally fail to utter a grammatical sentence, reasoners occasionally fail to conditionalize properly. And just as the violated theory of grammar persists, so too does the Bayesian theory."

I think our good descriptive Bayesian is right; the occasional presence of mistakes is not the death knell for a descriptive theory, whether it be a theory of language, rational decision-making, or law.[36] However, it is important than the performance errors remain only occasional and unsystematic. If thousands of people in the lab reject wager 1 but accept wagers 2 and 3, then we have a *prima facie* case against the Bayesian approach. In fact, research starting with Tversky's in 1974[37] has revealed systematic biases in people's assessment of probability, and this does raise a problem for our descriptive Bayesian. He may not yet be defeated, but he must offer a further defense, an explanation of the data consistent with his theory. As noted above, at best a

[36] I am not the first to posit a parallel between common law and grammar. In 1747, Samuel Johnson wrote,

> I shall therefore, since the rules of stile, like those of law, arise from precedents often repeated, collect the testimonies of both sides, and endeavour to discover and promulgate the decrees of custom, who has so long possessed whether by right or by usurpation, the sovereignty of words. SAMUEL JOHNSON, THE PLAN OF A DICTIONARY OF THE ENGLISH LANGUAGE; ADDRESSED TO THE RIGHT HONOURABLE PHILIP DORMER, EARL OF CHESTERFIELD; ONE OF HIS MAJESTY'S PRINCIPAL SECRETARIES OF STATE 25 (1747).

[37] Amos Tversky, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCIENCE 1124–31 (1974).

monotonic theory of legal reasoning finds itself in this predicament. Those theories with unrealistic computational requirements are badly off, as they posit performance error in every judicial decision.[38] Those theories, if any exist, with realistic computational requirements are better off, but still must explain why we do not see all the exceptions to rules written out in opinions.

Moreover, monotonic theories face an even greater challenge. In the Bayesian case, our standards for rationality condemn rejecting wager 1 while accepting wagers 2 and 3. Likewise, our standards for grammaticality proscribe the utterances linguists deem performance errors. But, in common law systems the supposed performance errors are lauded! Our standards for common law reasoning encourage judges to not determine all the exceptions to a rule.

This is best shown by examining the common law distinction between *ratio decidendi* and *obiter dicta*. The *ratio decidendi* is the "the principle or rule of law on which a court's decision is founded…a general rule without which the case must have been decided differently,"[39] which is what I have been discussing as the legal rule extracted from a past case. *Obiter dicta* refers to "a judicial comment made during the course of delivering a judicial opinion, but one that is unnecessary to the decision in the case and therefore not precedential (although it may be considered persuasive)."[40]

Important for our purposes is that discussions of how the court would handle hypothetical facts are designated *obiter dicta* rather than part of the *ratio decidendi*. Yet these discussions are discussions of potential exceptions to the rule. If the exceptions were expected to be built into the rule, then these discussions should be part of the *ratio decidendi*. The only rejoinder, short of

[38] One might suggest that the judges are not erring. Instead they are just incompletely extracting a rule that is complete.

[39] BLACK'S LAW DICTIONARY 582 (8th ed., 2004)

[40] *Id.* at 490.

rejecting the *ratio/obiter* distinction, is that we should ignore explicit discussions of potential exceptions and instead rely on some other process to extract the exceptions. But this is dubious. Whatever your theory of extracting the exceptions, it seems it should place a great deal of significance on a court's explicit discussion of when the rule applies.

While the *ratio/obiter* distinction provides the clearest demonstration that the norms of common law do not sanction extracting rules with all the exceptions built-in, we can also see this in the general principles underlying the common law. As Schauer writes,

> "It is the merit of the common law," Oliver Wendell Holmes observed, "that it decides the case first and determines the principle afterwards." That the decision of a particular case holds pride of place in common law methodology is largely uncontroversial. And indeed so too is the view that this feature of the common law is properly described as a "merit." Treating the resolution of concrete disputes as the preferred context in which to make law—and making law is what Holmes meant in referring to "determin[ing] the principle"—is the hallmark of the common law approach.… Moreover, so it is said, making law in the context of deciding particular cases produces lawmaking superior to methods that ignore the importance of real litigants exemplifying the issues the law must resolve.[41]

The common law's intense (Schauer might say, "myopic") focus on the facts of the case before it cautions against examining distant hypothetical circumstances. The monotonic theorist must denounce this "hallmark" of common law reasoning; only nonmonotonic theories can maintain its "pride of place in common law methodology."[42]

Thus, we can see that many monotonic theories of legal reasoning face a serious difficulties in accounting for the apparent exceptions to legal rules. All monotonic theories face a greater difficulty in that the methodology of the common law favors exactly the piecemeal approach to legal rules and exceptions that monotonic theories oppose. This gives some evidence for the

[41]Frederick Schauer, *Do Cases Make Bad Law*, U. CHI. L. REV., 883–84 (2006).

[42] Treating a precedential rule as a default does say something about how it applies in hypothetical cases, namely, that it *might* not apply in some of those cases. But this extremely weak claim is all it says about hypothetical cases, contra rules that list all the exceptional hypothetical cases in the antecedent.

claims that nonmonotonic theories are superior. Further evidence will come in Sections 5-7, when I will show how well a nonmonotonic theory can handle aspects of common law judicial practice.

4. A Fly in the Nonmonotonic Ointment? Holton's Monotonic Alternative

Although the nonmonotonic approach seems indispensable for an account of common law reasoning, Richard Holton has argued that we can get all the benefits of a nonmonotonic approach while retaining the familiar monotonic logic of classical quantified first order logic (hereafter "QFOL").[43] If that is correct, then the shift to relatively unfamiliar nonmonotonic logics just adds needless complication. However, a closer examination of Holton's proposal shows that is not a viable alternative.

Before I explain his theory, I should explain the simplifying steps I will take in presenting his argument. Most significantly I assume that the set of predicates in our language is closed under conjunction. Let n be a natural number. Then I denote predicates in our language as F_1, $F_2,\ldots F_n$, F_v, G_1, $G_2,\ldots G_n$, G_v; constants as a_1, $a_2,\ldots a_n$; and variables for constants as x_1, $x_2,\ldots x_n$. The seemingly out of place F_v and G_v will be explained shortly. I assume that for any predicate of arity-n_1, F_1, and any other predicate of arity-n_2, F_2, there is another predicate of arity-$(n_1 + n_2)$, F_3, such that it is equivalent to the conjunction of F_1 and F_2. For example, if there is a predicate that says of its argument, a_1, "a_1 is fifty pounds" and another predicate that says of its argument a_2, "a_2 is five feet tall," then there is a third predicate that says of its arguments, a_3 and a_4, "a_3 is fifty pounds and a_4 is five feet tall." This simplifies the presentation by reducing conjunctions of predicates to a single predicate.

Holton introduces a novel device called "*That's It*" into QFOL in order to handle the

[43]Holton, *supra* note 2.

issues addressed by nonmonotonicity.[44] I will call the resulting logic "QFOLT." He treats legal arguments as *modus ponens* deductions. The deductions have the following general form, where $m \leq n$:

$F_1(a_1,\ldots a_m)$
$\forall x_1,\ldots x_n ((F_1(x_1,\ldots x_m)$ & *That's It*$) \rightarrow F_v(x_1,\ldots x_m))$
That's It

$F_v(a_1,\ldots a_m)$

Following Holton, I use the subscript "v", for verdict, in denoting the predicate used in the conclusion of the deduction. He does not discuss in detail how we should understand these predicates, but the idea seems to be that $F_v(a_1,\ldots a_m)$ means something like "The defendant (or plaintiff) prevails in case with the features referred to by the constants $a_1,\ldots a_m$." There is no discussion of what the constants represent, so for simplicity's sake, I will hereafter just assume the constants refer to cases rather than features of the case. The stipulation that there be single predicates for the conjunctions of predicate allows me to make this assumption. We can then understand $F_v(a_1)$ as saying "Defendant/plaintiff prevails in in case a_1."

This change simplifies the form of legal arguments to the following:

$F_1(a_1)$
$\forall x_1((F_1(x_1)$ & *That's It*$) \rightarrow F_v(x_1))$
That's It

$F_v(a_1)$

The idea is that the first premise represents the facts of the case before the judge. The facts are all represented within the predicate, denoted by F_1 in the above example, and the constant represents the case. So the first premise says that the facts represented by F_1 obtain in this case. Let us call that premise the "fact premise." The second premise is what we will call "the rule

[44] Cullity and Holton, *supra* note 2; Holton, *supra* note 2.

premise."[45] It is a universally quantified statement that says, roughly, for any case, if it satisfies all the facts represented by F_1 and "That's It," then the defendant (or the plaintiff) prevails in that case. The third premise, which we'll call "the T.I. premise," is simply Holton's *That's It*. Using universal instantiation on the rule premise, we can get the conditional $(F_1(a_1)$ & *That's It*$) \rightarrow F_v(a_1)$. The fact premise combined with the T.I. premise are an instance of the antecedent of this conditional. Hence by *modus ponens* we deduce the conclusion $F_v(a_1)$.

The novelty is, of course, in the portions of the T.I. premise and the rule premise that involve *That's It*. Holton defines *That's It* as follows:

> *That's It*: There is no sound legal argument that supersedes this argument.[46]

To unpack that we need to understand what Holton means by "argument" and "supersession." Simplifying Holton's definitions[47] we can say that an argument is a pair composed of a set of formulas consisting of the three aforementioned premises and the formula that is the verdict. So from our previous example, the argument is the set composed of the set $\{F_1(a_1), \forall x_1((F_1(x_1)$ & *That's It*$) \rightarrow F_v(x_1))$, *That's It*$\}$ and the element F_v. Holton defines two versions of supersession but only one is relevant here, which is roughly this:

> *Supersession for sentences*
>
> An argument, $\{\{F_1(a_1), \forall x_1((F_1(x_1)$ & *That's It*$) \rightarrow F_v(x_1))$, *That's It*$\}, F_v\}$, is superseded by an argument, $\{\{G_1(a_1), \forall x_1((G_1(x_1)$ & *That's It*$) \rightarrow G_v(x_1))$, *That's It*$\}, G_v\}$, if and only if:
>
> (i) The predicate G_1 entails F_1 , i.e. $\forall x_1(G_1(x_1) \rightarrow F_1(x_1))$ but not *vice versa*, i.e. $\sim\forall x_1(F_1(x_1) \rightarrow G_1(x_1))$. And
>
> (ii) The predicate G_v is incompatible with the predicate F_v, i.e. $\forall x_1(G_v(x_1) \equiv \sim F_v(x_1))$.[48]

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[45] Note that the facts from the fact premise have to be filtered for relevance, otherwise legal rules will include all sorts of oddities. We do not want all legal rules to be sensitive to the defendant's height, but if we uniformly include that in the fact premise then it will uniformly appear in the legal rules. Presumably the discussion of facts in the opinion helps this process.

[46] Holton, *supra* note 2, at 170.

[47] See Holton, *supra* note 2, at 169–70.

[48] *Id*.

Intuitively, one argument supersedes another when it (i) makes use of *at least* same facts as the other but (ii) reaches a different conclusion. The gist of (ii) is straightforward. The idea behind (i) is that the facts premise attributes facts to a case. A superseding case must have facts that entail those facts attributed to the superseded case. For example, suppose the fact premise of an argument attributes the following facts to a case: (1) a man shot and killed another person, and (2) he is now charged with murder. The fact premise of a superseding argument could have the following facts: (1) a man shot and killed another person, (2) he is now charged with murder, and (3) the man shot the other man because he reasonably feared for his life. If the first argument concluded that the defendant is convicted, but the second argument concluded that the defendant is acquitted, then the second argument supersedes the first.

Hence, *That's It* says that there is no sound legal argument that makes use of at least the same facts as this very argument but reaches a contrary conclusion. That is, there is no true fact premise involving this case and true rule premise such that they logically entail a conclusion contrary to the conclusion of the argument in which this token of *That's It* occurs.[49] We will return to this shortly, but notice that *That's It* is highly sensitive to its context–it makes an assertion about the very argument in which it occurs.

The T.I. premise represents the claim that there are no further relevant facts, and a claim that there are no further relevant legal rules.[50] What is a relevant fact? A fact such that if it were added to the facts in the fact premise, it would trigger a legal rule that compels a contrary result. What is relevant legal rule? One that would be triggered by the current facts and compels an

[49]A third equivalent way of putting it: there are no true fact and rule premises such that if both are true, then the conclusion of the present argument *must be* false.
[50]Cullity and Holton, *supra* note 2, at 205.

opposite result. Suppose we have a murder case where one man shot another. The argument then says the man shot and killed another person, he is charged with murder, and that's it, there are no more facts that matter. When there is a further relevant fact, such as that the man shot the other out of reasonable fear for his life, then the T.I. premise is false. *That's It* in the rule premise essentially requires that none of the exceptions to the rule are triggered. The rule says when these facts obtain and none of the exceptional circumstances obtain, then the defendant (or plaintiff) prevails. This is how, in Holton's view, *That's It* manages to solve the legal version of the qualification problem discussed in Section II.

Using this presentation of the theory, we can see whether it lives up to Holton's claims. There are reasons to doubt Holton's claim that QFOLT is just a simple, monotonic extension of QFOL. As it stands, Holton's proposal does not specify how *That's It* behaves outside his examples of legal arguments. For example, he seems to treat *That's It* as a formula since it can be true or false, but he never tells us if it is false or truth-valueless when it appears outside of a legal argument. Note that if it is truth-valueless, then the logic is non-classical. To better understand it, we can consider how it could be reconstructed using familiar logical devices. I outline the problems facing this approach below.

Recall the original definition of *That's It*, "there is no sound legal argument that supersedes this argument." To give this a proper formal construction, we clearly need quantification over arguments. Above I have formalized arguments as pairs composed of a set of premises and a conclusion, which suggests second order logic is required. However, Gödel showed that a first order logic can make statements about its own formulae provided the logic has the resources to express arithmetic.[51]

[51] Kurt Gödel, *Über Formal Unentscheidbare Sätze der Principia Mathematica und Verwandter Systeme I*, MONATSH. FÜR MATH. UND PHYS. 173–198 (1931). Martin Davis provides a good explanation in English. See,

Gödel also showed that such a first order logic also allows self-reference,[52] which comports with Holton's definition of *That's It* as referring to the very argument in which it occurs. Furthermore, the requirement that the superseding argument be sound, i.e. have true premises, requires a truth predicate. The combination of self-reference and a truth-predicate brings the logic to the brink of paradox.[53] There are formalizations of each of these notions that avoid paradox but they add an element of complexity and take us further from FOLQ.

For example, indexing occurrences of *That's It* can remove the need for self-reference, but it adds complexity. That is, you could treat *That's It* as an expression which requires context to give it content. Much like "I" refers to the speaker, but who the speaker is depends on the context, we could treat *That's It* as dependent on context, viz., the premises preceding it in an argument. We might append a subscript to "I" in our logic to denote the different contents a usage of "I" may have. For example, we could say that "I_1" refers to me while "I_2" refers to Barack Obama. To represent Obama's utterance of "I am the president," in our logic we would use I_2. To represent my utterance of "I am the president," we would use I_1. Likewise, we could use "*That's It*$_1$" to represent the content of *That's It* within one argument and "*That's It*$_2$" to represent the content of *That's It* within a different argument. This allows us to avoid self-reference, because superseding argument has to be distinct from the argument it supersedes, namely, it has different premises and a different conclusion. Since the arguments are different, the occurrence of *That's It* in the potentially superseding argument will have a different index than the occurrence in the original argument. We could say the original argument involves "*That's It*$_1$" while the potentially superseding argument involves "*That's It*$_2$." *That's It*$_1$ is thus

Martin Davis, *The Incompleteness Theorem*, 53 N. AM. MATH. SOC. 414–18 (2006).

[52] Gödel, *supra* note 51.

[53] See generally J C Beall & Michael Glanzberg, *Liar Paradox*, *in* THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N Zalta ed., 2013).

not referring to an argument involving itself. Instead it refers to an argument involving *That's It*$_2$.

So perhaps some added complications can avoid the troubling self-reference Holton initially attributed to *That's It*. However, reconstructing *That's It* would also involve a truth predicate, since suppression involves *sound* arguments. The introduction of an adequate truth predicate proves troubling for Holton's system.

Consider, for example, why Holton cannot adopt a Tarskian approach to defining a truth-predicate. Tarski makes use of a hierarchy of object languages and metalanguages.[54] The metalanguage is used to talk about the object language and hence contains it. The metalanguage for an object language is the object language for another metalanguage higher up on the hierarchy, and so on. A truth predicate for only those formulae in the object language is then defined in that language's metalanguage. A truth predicate for that metalanguage is then defined in that language's metalanguage (two levels above the original object language), and so on for as many levels as we'd like.[55] Holton cannot make use of this because *That's It* refers to other sound arguments which themselves contain *That's It* as a premise. Since this second *That's It* is a premise in a sound argument, it must be a true formula in the language of that argument. Per the Tarskian picture, we have a truth predicate, defined in the language at level *n*, applied to the second *That's It*, which is a formula of the language at level *n* -1. But the second occurrence of *That's It* itself refers to a third occurrence of *That's It*. So that third *That's It* has to be a formula in the language at level *n*-2, with a truth-predicate from the level *n*-1. But that third occurrence refers to a fourth occurrence and so on. This makes it impossible to fix *n*, the level of the

[54] Alfred Tarski, *The Concept of Truth in Formalized Languages, in* LOGIC, SEMANTICS, METAMATHEMATICS 152–278 (Alfred Tarski ed., 1956); Alfred Tarski, *The Semantic Conception of Truth and the Foundations of Semantics*, 4 PHIL. PHENOMENOLOGICAL. RES. 341–376 (1944).

[55] Kripke offers an alternative, but it requires a non-classical three valued logic and it's not clear that *That's It* would fare better on Kripke's scheme. See Saul Kripke *Outline of a Theory of Truth*, 72 J. PHIL. 690–715 (1975).

language containing the initial *That's It*, as well as language containing the second *That's It* (*n*-1), and so on.

Much of the trouble with *That's It* comes from the circularity of its definition. Holton thinks that this circularity is not vicious and that we simply need to understand *That's It* and supersession together.[56] While a full discussion of when circularity is non-vicious is beyond the scope of this chapter, it's not clear why we should think this circularity is non-vicious. Holton cites the general discussion of circular definitions in Yablo in support.[57] However, Yablo, like Gupta before him,[58] is writing about apparently circular definitions of a predicate that can be converted into a recipe or procedure for producing the predicate's extension. Holton does not treat *That's It* as a predicate.[59] Instead, he seems to treat *That's It* as a formula, frequently writing about occurrences of *That's It* being true or false.[60] More importantly, he gives no reason to think that his circular definition can be converted into a procedure.

Even ignoring some of the previous difficulties, *That's It* gives rise to problematic results. Consider a legal argument that takes *That's It* as its only fact premise, call it Argument 1:

That's It
$\forall x_1((\textit{That's It}) \rightarrow F_v(x_1))$
That's It

$F_v(a_1)$

[56] Holton, *supra* note 2, at 171-75; Cullity and Holton, *supra* note 2, at 200-06.
[57] Cullity and Holton, *supra* note 2, at 200 (citing Stephen Yablo, *Definitions, Conistent and Inconsistent*, PHIL. STUD. 147–175 (1993)).
[58] Anil Gupta, *Remarks on Definitions and the Concept of Truth*, PROC. ARISTOTELIAN. SOC. 227–46 (1988); *Partially Defined Predicates and Semantic Pathology*, 65(2) PHIL. PHENOMENOLOGICAL. RES. 402–409 (2002).
[59] One could attempt to recast it as a predicate that takes a legal arguments as its argument, but I will not undertake that task here. Among other difficulties, the resultant predicate would have to be true only for the very legal argument in which the predicate itself occurs. Since Holton himself does not seem to treat *That's It* as a predicate, I don't pursue this as a reconstruction of his view.
[60] Holton, *supra* note 2, at 175.

Consider the first occurrence of *That's It*. If it is false, then trivially there is no fact premise in a sound argument that entails it. So there can be no superseding argument. But then the T.I. premise (the second occurrence of *That's It*) must be true, and hence all occurrences of *That's It* in Argument 1 must be true. Note that indexing *That's It* to arguments, as I discussed *supra* at p.53, will not help here because all occurrences are within the same argument. On pain of contradiction, *That's It* must be true.

Now consider an arbitrary legal argument with conclusion contrary to Argument 1. We can conjoin *That's It* to the fact premise of any argument to make a new argument. Letting $F_1(a_1)$ be the fact premise from such an arbitrary argument, we define a new arbitrary argument, Argument 2, as follows:

$F_1(a_1)$ & *That's It*
$\forall x_1((F_1(a_1)$ & *That's It*$) \rightarrow \sim F_v(x_1))$
That's It

$\sim F_v(a_1)$

The fact premise of Argument 2 entails the fact premise of Argument 1, and Argument 2 is clearly valid. Since Argument 1 cannot be superseded by a sound argument (because *That's It* must be true in Argument 1), there must be some false premise in Argument 2. *That's It* in Argument 2 must be true for the same reasons *That's It* must be true in Argument 1. So either $F_1(a_1)$ or $\forall x_1((F_1(a_1)$ & *That's It*$) \rightarrow \sim F_v(x_1))$ is false.

Suppose $\forall x_1((F_1(a_1)$ & *That's It*$) \rightarrow \sim F_v(x_1))$ is false. Then there are no true legal rules with $\sim F_v(a_1)$ as a conclusion, since $F_1(a_1)$ was the fact premise from an arbitrary argument with $\sim F_v(a_1)$ as it's conclusion and all legal rules have *That's It* in their antecedent. That is, there are no true legal rules with a conclusion contrary to $F_v(a_1)$, which is the conclusion of Argument 1. So there are no sound legal arguments with conclusions contrary to the conclusion of Argument

1.

On the other hand, suppose $F_1(a_1)$ is false. Since $F_1(a_1)$ was the fact premise from an arbitrary argument with $\sim F_v(x_1)$ as it's conclusion, then there is no true fact premise in any argument with $\sim F_v(x_1)$ as it's conclusion. Hence there are no sound legal arguments with conclusions contrary to the conclusion of Argument 1.

Both of the alternatives lead to the result that there are no sound legal arguments with conclusions contrary to the conclusion of Argument 1. This is disastrous in itself, but a greater problem that the conclusion of Argument 1 was arbitrary. We can construct analogs of Argument 1 and Argument 2, call them Argument 1' and Argument 2', which are identical except the conclusions are switched, i.e. Argument 1' has the same conclusion as Argument 2 and Argument 2' has the same conclusion as Argument 1. The same reasoning as used above will show that there are no sound legal arguments with conclusions contrary to the conclusion of Argument 1'. Thus there are no sound legal arguments with conclusions contrary to the conclusion of Argument 1 or contrary to the opposite conclusion. Hence, by bivalence there are no sound legal arguments for any conclusion at all.

There may be ways of resolving these problems, but they all involve enriching FOL in some way.[61] Thus they inevitably increase the complexity of the underlying logic. But this saps Holton's account of its greatest alleged virtue—the use of well-understood, well-behaved, classical monotonic logic.

That's It has a nonmonotonic analog in circumscription.[62] Circumscription involves

[61] Simply claiming that arguments like those above are not "legal arguments" won't help Holton. They are valid inferences in standard logics, and hence the entailments hold so long as the premises are true. What's needed is a general account of how *That's It* functions within the logic.

[62] See John McCarthy, *Circumscription — A Form of Non-Monotonic Reasoning*, 13 ARTIFICIAL INTELLIGENCE 27–39 (1980).

minimizing the extensions of predicates for the purpose of drawing conclusions from a set of formulas. For example, suppose we have a predicate, Ex_1 that says its argument is an exception to a legal rule.[63] Given a set of formulas, **S**, circumscription says, for all constants x such that $Ex_1(x)$ is not in the deductive closure of **S**, draw conclusions as if $\sim Ex_1(x)$. Hence, if we had the set of formulas $\{F_1(a_1), \forall x_1((F_1(x_1) \,\&\, \sim Ex_1(x_1)) \rightarrow F_v(x_1))\}$ circumscription would allow us to conclude $F_v(a_1)$. The critical point that Holton's theory misses and that makes circumscription nonmonotonic is that we draw conclusions as if the exceptions are minimized, but we can update the theory with information about exceptions obtaining. Once **S** is so updated, we may be able to draw fewer conclusions. Holton's theory cannot be so updated, because it is monotonic. His *That's It* essentially is a shorthand for adding the negation of each exception formula (for the given rule) to **S**. But as we saw in Section III, determining each exception is precisely the problem *That's It* was supposed to resolve!

In sum, Holton's theory is not a genuine nonmonotonic alternative. In its nascent form, it lets to paradoxical results and attempts to further develop it involve enriching the logic beyond simple classical logic. To capture the virtues I have alleged in Section 3, we need a nonmonotonic approach. I the next section I offer a nonmonotonic approach and improve upon it in Section 7.

5. A Nonmonotonic Theory of Common Law Reasoning

A nonmonotonic logic thus seems required for theorizing common law reasoning. Currently, the best nonmonotonic theory is Horty's,[64] which is closely related to those of

[63] Technically, these predicates need to be indexed to the individual legal rules, so Ex_1 says its argument is not an exception to one legal rule and Ex_2 says its argument is not an exception to another legal rule and so on. We ignore that complication here.

[64] John F Horty, *Rules and Reasons in the Theory of Precedent*, 17 LEG. THEORY 1–33 (2011); John F Horty & Trevor J. M. Bench-Capon, *A factor-based definition of precedential constraint*, 20 ARTIFICIAL INTELLIGENCE & L. 181–214 (2012).

Lamond,[65] and Prakken and Sartor[66]. In this section I will introduce this theory and then implement improvements to deal with a wider range of common law cases.

For the purpose of reasoning with precedent, common law reasoners are concerned with the published opinions from past cases, which I will refer to just as "cases" for convenience. Following Ashley,[67] Horty's theory divides a case into four components: (1) reasons in favor of the plaintiff, which we will denote "R^p_n" where *n* is a number used to differentiate multiple reasons for the plaintiff; (2) reasons in favor of the defendant, which we will denote "R^d_n" where *n* is a number used to differentiate multiple reasons for the defendant; (3) an outcome, which we will denote with a "P☺" when it is a ruling in favor of the plaintiff and a "D☺" when it is in favor of the defendant; (4) a (only one) rule, which we will denote "$Rule_n$" where *n* is a number used to differentiate different rules from different cases.[68]

The form of the rule is the most innovative aspect of the theory, as the rule is a conditional created from the other three components. The consequent of the conditional is the outcome from the case. The antecedent of the conditional is a subset of the reasons for the party that the outcome favors. For example, a rule may look like this: $\{R^p_1, R^p_2, R^p_3\} \rightarrow$ P☺, which says "if these three reasons for the plaintiff obtain, then rule for the plaintiff." A rule may not look like this: $\{R^d_1, R^p_1\} \rightarrow$ P☺, because not all the reasons in the antecedent are not reasons for the party that the ruling favors.[69] We will soon discuss what happens when these rules conflict and what

[65] Lamond, *supra* note 7.

[66] Henry Prakken & Giovanni Sartor, *A Dialectical Model of Assessing Conflicting Arguments in Legal Reasoning*, 4 ARTIFICIAL INTELLIGENCE & L. 331–68 (1996).

[67] Kevin D Ashley, *Reasoning with Cases and Hypotheticals in Hypo*, 34 INT. J. MAN-MACHINE STUD. 753–796 (1991); Stefanie Brüninghaus & Kevin D Ashley, *Finding Factors: Learning to Classify Case Opinions Under Abstract Fact Categories*, *in* PROC. 6TH INT'L CONF. ON ARTIFICIAL INTELLIGENCE & L. 123–131 (1997).

[68] See Horty, *supra* note 64.

[69] In earlier formulations, such as Horty's 2004 version, the antecedent of the rule was the set of all reasons for the prevailing party. John F. Horty, *The Result Model of Precedent*, LEG. THEORY 19 (2004). The more recent and improved version allows the antecedent of the rule to be a proper subset of the reasons for the prevailing party. The determination of which reasons compose the antecedent is part of the process of extracting a rule from a

role nonmonotonicity plays, but first an example is helpful.

Let's briefly return to the contract example from p.37 to help illustrate this theory. Suppose there was an oral agreement between the plaintiff and the defendant that the defendant would provide 50 widgets on July 4th to the plaintiff in exchange for $50. The plaintiff pays the defendant and the defendant fails to deliver the widgets. The plaintiff sues for specific enforcement and prevails.[70] In this highly simplified case, we can say that the oral agreement is a reason in the plaintiff's favor. From this case when then get the following rule in which R^{p}_{1} is the presence of an oral agreement:

Rule$_1$: $\{R^{p}_{1}\} \rightarrow P\text{☺}$.

The precedential import of this bare bones case is simply Rule$_1$, saying that if there is an oral agreement, then rule for the plaintiff (enforce the contract). If this rule were understood monotonically we would run into obvious problems, as it would require future courts to enforce every oral agreement. The innovation is to understand Rule$_1$ as a *default*, that is, a rule that can be overridden in exceptional cases.

For example, we may have a default that says "birds fly" but that default is overridden when the bird at issue is a penguin. This allows for nondestructive updates of theories. We can start with the default that if something is a bird, then it flies. We can then add the default that if something is a bird and penguin, then it does not fly. The second default is given a higher priority than the first default, which means that only the second may be applied when both are triggered. Thus only the second may be used to infer from the premise that there is a penguin (and hence a bird) to the conclusion that it does not fly. We can say that the first rule is overridden by the second in these situations. The first (lower priority) default remains within the

case. That process is independent of the theory.

[70] I ignore the subtleties of contract law remedies in these examples for ease of exposition.

theory; it is not destroyed. It is available to allow us to infer that a bird flies, provided we do not also know that that bird is a penguin. This feat requires a nonmonotonic logic.[71]

This naturally raises the question of when a default can be overridden. If $Rule_1$ can be overridden at any time, it does not seem to constrain future judges and hence cannot be precedential. The genius of the theory lies in its answer. From the case we derive a weighing of reasons. Given the rule, which incorporates the outcome, we can see that those reasons for the prevailing party in the antecedent were deemed to outweigh all the reasons favoring the losing party. We'll use ">" to denote this relation of outweighing. This weighing of reasons is binding, so future courts may not alter it. A rule may only be overridden if the current case involves a novel set of opposing reasons, i.e. a set of reasons that (i) favors the party that loses according to the rule and (ii) is not a subset of the set of reasons previously outweighed by the reasons in the rule.

In our simple example, we can see that $\{R^p_1\}$ outweighs the empty set of reasons for the defendant. That is, $\{R^p_1\} > \emptyset$. Its precedential force is thus very weak (trivial, in fact). $Rule_1$ must be followed only when R^p_1 obtains and there are no reasons in favor of the defendant. Now let's make the example more complicated. Suppose that widget components greatly increase in price after the oral agreement. It will now cost the defendant $10,000 dollars to make the widgets. This is a reason (undue hardship) in the defendant's favor, R^d_1. Suppose the outcome of the case remains in favor of the plaintiff. The rule in this example is still $Rule_1$, but the precedential force is stronger than it was in the first example. This case tells us that $\{R^p_1\} > \{R^d_1\}$. Given this case, $Rule_1$ must be followed in a future cases where R^p_1 obtains (there is an

[71] A number of logics have been developed that make use of such defaults. See HORTY, *supra* note 6 ; Brewka, *supra* note 4; Antonelli, *supra* note 4; Horty, *supra* note 4. I won't belabor the technical details in this piece but it is important to recognize that the details can be properly worked out.

oral agreement) and either there are no reasons in favor of the defendant or the only reason in favor of the defendant is R^d_1.

Suppose later a new case comes along with the same facts, except in the interim between the previous case and the new agreement widgets were declared illegal. This novel reason in favor of the defendant (R^d_2) means the judge in this case is not bound to follow $Rule_1$. She may distinguish this case on the basis of this reason. If she does so, then she introduces the following new default rule:

Rule$_2$: $\{R^d_1, R^d_2\} \rightarrow D☺$.

$Rule_2$ trumps $Rule_1$, which is accommodated in the logic by assigning $Rule_2$ a higher priority than $Rule_1$. Note that $Rule_1$ is not deleted and replaced by $Rule_2$; it simply does not apply when $Rule_2$ does. This is how the theory captures the difference between distinguishing a precedent and overruling it. Distinguishing occurs when a rule is trumped, while overruling occurs when the rule is deleted and replaced.

The judge's decision to apply $Rule_2$ introduces the weighing $\{R^d_1, R^d_2\} > \{R^p_1\}$. Judges in future cases now have to abide by this weighing, as well as the weighing from the older case, namely, $\{R^p_1\} > \{R^d_1\}$. In this way more and more relative weights are established as cases are decided. As more relative weights are established the number of novel sets of reasons decreases and future judges become more constrained.[72]

We now have, at last, an account of legal rules that does not require endless searching for exceptions before one can arrive at the rule. Horty's account, building on Larmond's theory, also

[72]Some have argued against this theory on the grounds that there are always novel sets of reasons for both parties in each case. See Chapter 1 for a response. There are also questions about aggregating relative weights. For example the > relation is not transitive, so it does not follow from $R^d_1 > R^p_1$, $R^p_2 > R^d_1$, and $R^p_1 > R^d_2$, that $R^p_2 > R^d_2$. These issues are discussed in Horty and Bench-Capon, *supra* note 64, at 199; Horty, *supra* note 64, at 17. I ignore these questions here, but see *infra*, Ch. 3 at §3.

explains how legal rules can become entrenched.[73] The rule from a case need not involve all of the reasons for the prevailing party that obtain,[74] so the same rule can be applied in a number of cases involving different reasons. As courts decide to apply the rule in the face of different novel sets of reasons, future courts are further limited in their ability to override (i.e. distinguish) the rule. Thus the rule becomes more deeply entrenched in the law.

6. Improving Horty's Theory

Horty's theory has much to recommend it, but it can be improved upon to deal with more complex legal rules. Two types of cases pose problems to the theory as it stands. Horty's theory requires the extraction of a single rule from each past case that favors the prevailing party. It also requires that the reasons involved in the rule and the weighings are present in the case, i.e. not merely hypothetical. In the next two sections I will examine cases that challenge these requirements. Interestingly, both types of cases themselves strain the distinction between *ratio decidendi* and *obiter dicta* discussed *infra* at p.46. I return to this issue in Section 7.

6.1. Accommodating Overdetermined Cases

The first problematic sort of cases are those in which the court makes a decision on the basis of multiple legal rules, each of which would be sufficient for the decision. These are sometimes known as "cases with alternative holdings"[75] or "judgments on alternative grounds"[76]. I think a less ambiguous term is "overdetermined cases" because it makes clear that the outcome of each of the alternative holdings is the same. Consider the case of *The Newport Yacht Basin*

[73] See Lamond, *supra* note 7.
[74] This takes the account beyond *a fortiori* reasoning. See Horty, *supra* note 64, at 183-84, 203-05.
[75] Jo Desha Lucas, *The Direct and Collateral Estoppel Effects of Alternative Holdings*, 50 U. CHI. L.REV. 701–30 (1983).
[76] Adam Siegler, *Alternative Grounds in Collateral Estoppel*, 17 LOY. L.A. L. REV. 1085–1124 (1984).

Ass'n v. *Supreme Northwest Inc.* (henceforth *NYBA*).[77] Here the defendant prevailed and was awarded attorney's fees "based upon a prevailing party provision of a purchase and sale agreement, a contractual indemnity provision, and principles of equitable indemnity."[78] According to the trial court judge, each of these was sufficient to justify the awarding of attorney's fees. The appellate court rejected each one of these justifications, but that does not matter for our purposes.

Horty's theory cannot handle this case because it insists that each case have only one legal rule. It would combine all the reasons favoring the defendant regarding the prevailing party provision (PPP), the indemnity provision (IP), and equitable indemnity (EI) into one rule. But this does violence to the text of the opinion. Further, if that jumbled rule were the holding in the case, then the appellate court need not reject each basis separately because rejecting just one would be to reject the rule.

The natural solution is to allow cases to have multiple rulings. Assuming one reason in the antecedent for each rule, we could characterize the three rules from the trial court decision in *NYBA* as follows:

Rule_1 (PPP): $\{R^d_1\} \rightarrow D☺$
Rule_2 (IP): $\{R^d_2\} \rightarrow D☺$
Rule_3 (EI): $\{R^d_3\} \rightarrow D☺$

Here R^d_1 is the prevailing party provision of the contract, which favors the defendant. R^d_2 is the indemnity provision, which also favors the defendant. R^d_3 stands for the equitable reason in favor of finding indemnity, which favors the defendant.[79] Since all rules are understood as

[77] The Newport Yacht Basin Ass'n of Condo. Owners v. Supreme Nw., Inc., 285 P.3d 70 (Wash. Ct. App. 2012) [hereinafter *NYBA*].
[78] *NYBA*, 285 P.3d at 75.
[79] R^d_3 is highly simplified, as equitable holdings typically involve weighing a number of facts. For simplification I compress all the pro-defendant reasons with respect to equitable indemnity into one reason.

triggered in this case, they all have the same priority.

The set of all reasons favoring the plaintiff can likewise be simplified, let's call the result $\mathbf{R^p}$. With the aforementioned three rules we get the following three constraints on the weight of reasons: $\{R^d_1\} > \mathbf{R^p}$, $\{R^d_3\} > \mathbf{R^p}$, $\{R^d_5\} > \mathbf{R^p}$. The reasons in each antecedent outweigh the all the reasons for the plaintiff. This seems proper since each rule was supposed to be sufficient to decide the case for the defendant.

Importantly, allowing overdetermined cases to have multiple rules does not significantly alter the underlying logic of the theory. An overdetermined case is equivalent to multiple regular cases involving the exact same reasons as the overdetermined case but each introducing a different legal rule. That is, *NYBA* understood as a case with multiple rules is equivalent to three cases, each involving $\{R^d_1, R^d_2, R^d_3\}$ and $\mathbf{R^p}$, with one case using Rule_1, another using Rule_2, and the third using Rule_3.

6.2 Accommodating Framework Cases

The second troubling sorts of cases are what I'll call "framework cases." These are cases, usually decided by higher courts, which establish a framework to deal with future cases that may have very different facts. These decisions seem to introduce rules that go beyond what is needed to decide the current case.

Lemon v. *Kurtzman* offers a well-known example.[80] In that case the U. S. Supreme Court addressed the question of whether Pennsylvania's and Rhode Island's statutes that provided money to religious primary schools subject to state oversight violated the Establishment Clause of the First Amendment. The court introduced a three-pronged test and ultimately ruled that both programs did violate the Establishment Clause. The "*Lemon* Test" as it became known, was the

[80] *Lemon v.* Kurtzman, 403 U.S. 602 (1971).

following:

> Three such tests may be gleaned from our cases. First, the statute must have a secular legislative purpose; second, its principal or primary effect must be one that neither advances nor inhibits religion [citing *Allen*]…finally, the statute must not foster "an excessive government entanglement with religion [citing *Walz*]."[81]

The *Lemon* court held that the statutes had a secular legislative purpose (they passed the first prong), but they fostered an excessive government entanglement with religion (they failed the third prong) due to the government oversight.[82] The court declined to determine whether each statute's principal or primary effect was one that neither advances nor inhibits religion (ignoring the second prong), since failing the third prong meant the statutes were invalid anyway.[83]

In cases like this, Horty's theory will select only a rule corresponding to the third prong, because that is the rule which yields the pro-plaintiff outcome. If we follow the court in thinking that the third prong is just the rule from *Walz*, then *Lemon* is simply the application of a prior rule in a new context and the other two prongs are treated as *dicta*. Perhaps this is the best understanding of *Lemon*, but it's not the most common. The *Lemon* Test was taken quite seriously, even if the court may have ultimately abandoned it.[84]

I think the theory can be modified to accommodate the standard interpretation of the *Lemon* Test; I leave the question of whether it ought to be so modified for constitutional law scholars. The modification that first comes to mind is the previous one of allowing multiple rules in one case. Let R^d_1 be the presence of a secular legislative purpose[85] (remember, the

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[81] *Lemon*, 403 U.S. at 613 (citing Walz v. Tax Comm'n of N.Y., 397 U.S. 664 (1970) and Bd. of Educ. v. Allen, 392 U.S. 236 (1968)).

[82] *Lemon*, 403 U.S. at 614-15.

[83] *Id.* at 614.

[84] Some argue that *Lemon* marked the beginning of an empirically measurable, distinct epoch in how the Supreme Court decided establishment-clause cases. Herbert M Kritzer & Mark J Richards, *Jurisprudential Regimes and Supreme Court Decisionmaking: The Lemon Regime and Establishment Clause Cases*, 37 LAW SOC. REV. 827–840 (2003).

[85] One might object that this and the following examples use too coarse-grained a characterization of the relevant reasons. Instead, the objection goes, we should adopt an approach that individuates facts that lead to the

defendant wins on the first prong). Let R^p_1 be the presences of excessive entanglement between the government and religion. The rules corresponding to the prongs are as follows:

> $Rule_1$ (1^{st} prong, secular legislative purpose): $\{R^d_1\} \rightarrow D\text{☺}$
> $Rule_2$ (2^{nd} prong, primary effect on religion): ??
> $Rule_3$ (3^{rd} prong, excessive entanglement): $\{R^p_1\} \rightarrow P\text{☺}$

This raises a number of problems. First, it tells us nothing about the second prong since there is no ruling with respect to that prong. There is no finding that the statutes have a primary effect of advancing or inhibiting religion, but also no finding that they lack that primary effect. Hence, within the confines of the current theory there is no rule for this prong. Second, $Rule_1$ and $Rule_3$ are in conflict. Both $Rule_1$ and $Rule_3$ are triggered in this case, since R^d_1 and R^p_1 both obtain, and each demands a contrary outcome.

We can resolve the second problem by imposing a priority on $Rule_1$ and $Rule_3$, ensuring that $Rule_3$ trumps $Rule_1$. Still, this is an unattractive characterization of the test. It is not that the third prong is more important or more applicable than the first. Rather, it is that failure to meet the requirements of any prong results in the plaintiff's victory (the statute is invalidated). We might try to capture this via the following:

> $Rule_1$ (1^{st} prong, secular legislative purpose): $\{??\} \rightarrow P\text{☺}$
> $Rule_2$ (2^{nd} prong, no primary effect on religion): ??
> $Rule_3$ (3^{rd} prong, no excessive entanglement): $\{R^p_1\} \rightarrow P\text{☺}$

Now there is no need for prioritizing one rule over the other. The relation between the rules and their respective prongs is more systematic as each rule represents the conditions for failing the respective prong, whereas in the first attempt some rules characterized passing the respective prong while others characterized failing it.

Of course, the question marks still indicate a serious problem with $Rule_1$. The court

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conclusion that there is a secular legislative purpose. I address this issue *infra* at p.38.

discusses reasons relevant to this prong, but ultimately determines that the weight of those reasons favor the defendant. Hence I cannot put the pro-plaintiff reasons regarding the second prong into the antecedent of $Rule_1$ because the resulting weighing would favor those reasons over the pro-defendant reasons, which is exactly opposite the result reached by the court.

6.2.1. A First Attempt

Three options are available at this point. One, close to the view discussed *supra* at p.66, is too take the court's citation to *Allen* seriously. *Allen* had a pro-defendant outcome, but the language of secular purposes and primary effects on religion therein is quoted from *Schempp*.[86] *Schempp* had a pro-plaintiff outcome, so it contains a rule with a pro-plaintiff consequent. Actually, to get the two distinct prongs that the *Lemon* court derives, *Schempp* needs to be understood as an overdetermined case with two pro-plaintiff rules. I think such a reading is plausible.[87] The court in *Allen* is then understood as distinguishing the case there from *Schempp*. The citation to *Allen* is understood as an elliptical way of restating the rules from *Schempp* and those rules meet all the requirements of our theory.

In the end, the result is that $Rule_1$ and $Rule_2$ are simply imported from *Schempp*. Letting R^p_3 be the presence of a secular legislative purpose, and R^p_2 be the presence of excessive entanglement, we get the following rules from *Schempp*:

$Rule_1$: $\{R^p_2\} \rightarrow P☺$
$Rule_2$: $\{R^p_3\} \rightarrow P☺$

This is entirely unproblematic for our theory, because both R^p_2 and R^p_3 obtain in *Schempp*.

This strategy means the second prong receives no new precedential force as it is simply a

[86] Sch. Dist.of Abington Twp., Pa. v. Schempp, 374 U.S. 203 (1963).
[87] See *Schempp*, 374 U.S. at 223-25

reminder of the other rule in *Schempp*.[88] That seems correct. This strategy also treats the discussion of the first prong in *Lemon* as an explanation that the reason from one of the rules in *Schempp* does not obtain in the present circumstance. The rule does not receive any new precedential force. Some might think this is incorrect, since it makes a large portion of the opinion irrelevant to its precedential force. One may want to say that part of the precedential import of *Lemon* is that any statute with content and legislative history equivalent to that of the Pennsylvania or Rhode Island statutes will pass the first prong, i.e. such statutes must be deemed to have a secular legislative purpose. Further, this approach also makes it difficult to understand why the *Lemon* test was viewed as a novel three part test instead of a single new rule with a reminder of past rules.[89]

6.2.2. A Second Attempt

A second strategy is to say that we should forget about the citations and instead remove the requirement that the rule(s) in a case involve reasons found in that case.[90] This moves us away from the common law's focus on the facts before it, but perhaps the *Lemon* court strayed from the virtues of common law courts in this regard. Allowing rules involving hypothetical reasons opens up a number of possibilities. First, it allows us characterize Rule_2. Second, it allows us to characterize the prongs using rules that do not conflict. Let R^p_1 be the absence of a secular purpose, R^p_2 be the presence of a primary effect of advancing or inhibiting religion, and

[88] It also raises the question of why not take the *Walz* citation seriously as well and then just make *Lemon* an entrenchment of that rule. But I am ignoring that question here. See *supra* at p.66.

[89] See, for example, Kenneth Mitchell Cox, *The Lemon Test Soured: The Supreme Court's New Establishment Clause Analysis*, 37 VAND. L. REV. 1176–1205 (1984); Jesse H Choper, *The Establishment Clause and Aid to Parochial Schools-An Update*, 75 CAL. L. REV. 5–15 (1987); Donald A Giannella, *Lemon and Tilton: The Bitter and the Sweet of Church-State Entanglement*, 1971 SUP. CT. REV. 147–200 (1971).

[90] Once this is adopted, R^p_n and R^d_n will no longer represent reasons that obtain in the case. Instead, they will represent potential reasons. This is unproblematic since the theory assumes that the reasoner has already determined the sets of obtaining pro-plaintiff and pro-defendamt reasons that obtain independently of her determination of the rules in the case. I refer to these potential reasons simply as "reasons" in what follows.

R^p_3 be the presence of excessive entanglement. The resulting characterization of the *Lemon* test is this:

> $Rule_1$ (1^{st} prong, secular legislative purpose): $\{R^p_1\} \rightarrow P☺$
> $Rule_2$ (2^{nd} prong, no primary effect on religion): $\{R^p_2\} \rightarrow P☺$
> $Rule_3$ (3^{rd} prong, no excessive entanglement): $\{R^p_3\} \rightarrow P☺$

This gives a clean characterization of the test using three non-conflicting rules. It also does not depend on the understanding of any past cases, meaning *Lemon* could be read as introducing three new rules.

Yet, there is a problem with this strategy. The court finds that R^p_1 does not obtain and refrains from determining whether or not R^p_2 obtains. How can we then assign weight to those reasons? If we confine ourselves assigning weight only to reasons found to obtain, the precedential force given $Rule_1$ and $Rule_2$ by *Lemon* is very weak.[91] The rules impose the weightings of $R^p_1 > Ø$ and $R^p_2 > Ø$.

This weighing is worrying because if R^p_1 obtains, i.e. the statute lacks a secular legislative purpose, then it seems as if a very strong opposing reason should be required to outweigh that reason. I know of no good solution to this problem. One possibility is to make $Rule_1$ a strict rule, which is a rule that is not a default and hence cannot be defeated by other rules. The default logic underlying this system has no problem allowing such rules. The trouble is that such rules bring us all the way back to the problems of exceptions that we discussed at the start. It is possible that some legal rules are strict (indefeasible) and others are defaults (defeasible), but adding that to our theory would require a procedure for discriminating between the two. Unfortunately, I know of no such procedure.[92]

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[91] $Rule_3$ imposes the familiar weighing where R^p_3 outweighs all the pro-defendant reasons present in *Lemon*.

[92] An alternative solution would be to generate a hypothetical weighing, letting R^p_1 and R^p_2 outweigh sets of reasons not discussed in the opinion. But determining which unmentioned hypothetical reasons are outweighed presents

However, courts do on occasion weigh hypothetical reasons.[93] If we permit these weighing to be precedential, we can derive a weighing from *Lemon*, which captures the force of the rules very well. The *Lemon* test is formulated such that failure on any prong is sufficient for a statute to be unconstitutional. "Sufficient" must be understood contextually here, because the rules which compose the test are defaults and hence can be defeated even if triggered. How should we then understand "sufficient" in this context? The answer is that "sufficient" here means "sufficient given the opposing reasons." That is, if R^p_1 or R^p_2 obtained, either would be sufficient to defeat the pro-defendant reasons (reasons for finding the statute constitutional). Therefore, R^p_1 and R^p_2 should be weighed such that they defeat all the pro-defendant reasons. This gives R^p_1, R^p_2, and R^3_3 equal weight, which comports with the treatment of each prong of the test as equally important.

The coarse-grain characterization of the reasons in each rule may be troublesome. One might object that we miss a great deal of the precedential import of the case with this characterization. The interesting and important question, the objection goes, is what constitutes a statute's having a secular legislative purpose, or having a primary effect of advancing or inhibiting religion, or creating an excessive entanglement between the government and religion. Our present theory by-passes all these issues as it begins with the presence or absence of these reasons already determined. The following section attempts to answer this objection.

6.2.3. A Different Kind of Precedent? Rules That Do Not Determine Outcomes

The objection from the last section urges that we cannot ignore the step from a case to sets of opposing reasons. On this issue, Horty writes,

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only a slight variant on the earlier problem of determining unmentioned exceptions.

[93]See, for example, Marshall's dissent in Stencel Aero Eng'g Corp v. U.S., 431 U.S. 666 (1977).

> Of course, it must be noted also that the mere ability to understand a case in terms of the factors [i.e. reasons for one party or the other] it presents itself requires a significant degree of legal expertise, which is presupposed here. Our theory thus starts with cases to which we must imagine that this expertise has already been applied, so that they can be represented directly in terms of the factors involved; we are concerned here only with the subsequent reasoning.[94]

The theory starts with the case already converted into sets of reasons. It does not concern itself with this conversion. It is only concerned with only the second step of a two-step process: one going from facts to reasons (factors) and another going from reasons to outcomes.[95]

At this point it is important to make clear what my theory purports to accomplish. It is not a complete theory of judicial reasoning. It does not purport to exhaust the many ways in which past cases may influence current judges. It is an attempt to explain the force of precedent in judicial reasoning. Even past cases that are not relevant precedent may nonetheless be persuasive. They may not bind the current judge in any way, but nonetheless they influence how she decides the case. This influence might involve adopting the rule from a non-precedential case, but it need not. Instead, the past case may give the judge a helpful way of thinking about a problem, for example in terms of the costs imposed on rational actors. Or it may inspire her in more general ways. For example, recalling Justice Warren's insistence that *Brown* v. *Board of Education* be a unanimous opinion may temper the judge's tone in her own opinions.[96]

Additionally, past cases may influence how the judge proceeds from facts to reasons. Suppose she is hearing a nuisance action. She knows from past cases that a loud business operated close to a home is a reason favoring the homeowner. She knows the business is 15 feet

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[94] Horty, *supra* note 64, at 5.

[95] See Horty and Bench-Capon, *supra* note 64 at 210; Lars Lindahl & Jan Odelstad, *Intermediate Concepts in Normative Systems*, *in* DEONTIC LOGIC AND ARTIFICIAL NORMATIVE SYSTEMS, 8TH INTERNATIONAL WORKSHOP ON DEONTIC LOGIC IN COMPUTER SCIENCE 187–200 (2006); Alf Ross, *"Tû-Tû,"* 70 HARV. L. REV. 812–25 (1957).There are representations of the first step, but they do not neatly map on to the concept of precedential rules. See Horty and Bench-Capon, *supra* note 64 at 203–10. Moreover, my goal here is to stretch Horty's theory as far as I can.

[96] See EDWARD G WHITE, EARL WARREN: A PUBLIC LIFE 1–444 208 (1987).

from the home. But suppose she does not know whether that counts as "close" in a nuisance action. She is likely to review past cases to see what distances were previously counted as "close." Suppose she finds a number of nuisance cases where businesses 15 feet from homes were deemed close.[97] This then influences her to treat the business in the current case as close to the home.

On the present theory this sort of influence is certainly permissible, but it is not precedential. To see this, note that the outcomes of the past cases the judge reviewed (and hence their rules) are irrelevant to her determination. The objection posed at the end of §6.2.2 essentially urges that this sort of influence be treated as precedential in at least some instances, such as the discussing in *Lemon* of the statutes' secular legislative purpose. What follows is an attempt to accommodate this within my theory.

I will discuss two ways of working this out. The first is to start with cases containing facts, reasons, and two sorts of default rules. One sort of rule goes from a set of facts to a set of reasons. Call them F-rules. The other sort goes from reasons to outcomes. The problem with this approach is that the arguments dismissed in Chapter 1, which noted that there are always factual differences between cases, successfully undermine the first sort of rules. Since the rules use facts, they can be distinguished in the presence of any novel fact and hence can always be distinguished. This makes them unfit for precedent.

The second approach is to introduce two types of reasons: simple reasons and complex reasons.[98] Simple reasons are reasons that judges can readily (perhaps intuitively) discern such

[97]There is another issue lurking here, which I ignore in this chapter, namely, what if the past cases involve businesses that are between 20 and 30 feet from the respective homes? How do would we get from that to a conclusion about businesses 15 feet from homes? See Chapter 1 for further discussion.

[98]I use this strategy because, as will be seen, it prevents S-rules from chaining. It might be best to allow S-Rules to chain, but I adopt the most conservative possible strategy here. I discuss loosening the reigns in Chapter 3, § 6.3.

as "defendant killed the plaintiff," "plaintiff signed the contract," etc. These might be very thin reasons that fit tightly with facts, but they will still have a pro-defendant or pro-plaintiff polarity. Complex reasons are reasons that not readily apparent, such as, "the statute had a secular legislative purpose,"[99] "the dominant theme of the material taken as a whole appeals to a prurient interest in sex,"[100] "defendant was engaged in an inherently dangerous activity."[101] These are reasons that sit some distance from the bare facts of the case. I'll call the first sort of reasons S-reasons and the second sort C-reasons. C-reasons will be denoted with an "$\mathbb{R}$" and S-reasons will be denoted with an "R." Mixed sets of reasons involving both sorts of rules are permitted and can be weighed just like any other set of reasons.

Sets of either sort of reason or a mixed set can serve as the antecedent of an outcome-determinative rule, i.e. a rule with a ruling favoring the plaintiff or defendant in the consequent. So outcome determinative rules can have any of the following forms (I only use the notation for pro-defendant rules, the conversion to pro-plaintiff rules is obvious):

Just S Reasons: $\{R^{d}_{n},\ldots R^{d}_{m}\}\rightarrow D\text{☺}$

Just C Reasons: $\{\mathbb{R}^{d}_{n},\ldots \mathbb{R}^{d}_{m}\}\rightarrow D\text{☺}$

Mixed Reasons: $\{R^{d}_{n}, \mathbb{R}^{d}_{n},\ldots R^{d}_{m}, \mathbb{R}^{d}_{m}\}\rightarrow D\text{☺}$

In addition to the familiar outcome-determinative rules, we introduce a new class of rules that go from a set of S-reasons to a set (likely a singleton) of C-reasons. Call these S-rules. The have the following form (again the conversion to pro-plaintiff is obvious):

S-Rule: $\{R^{d}_{n},\ldots R^{d}_{m}\}\rightarrow \mathbb{R}^{d}_{n}$

Past cases are now composed of (1) a set of S-reasons, (2) a set of C-reasons, (3) a set of all

[99]See *Lemon*, 403 U.S. 602-25.
[100]See *Miller*, 413 U.S. at 15.
[101]See RESTATEMENT (SECOND) OF TORTS §520 (1979).

reasons (both S- and C-reasons) favoring one party, (4) a set of all reasons favoring the other party, (5) a set of S-rules, and (6) a set of outcome determinative rules.

The theory explains how a judge decides a case as follows. First, he establishes the S-reasons present in the case. This process remains untheorized and it may be influenced by the content of the S-rules and outcome determinative rules from the past cases.[102] He then applies any S-rules from past precedential cases, yielding C-reasons. He then determines whether any other C-reasons are present in the case. This process is also untheorized. With all the reasons present in the case established, he applies any applicable outcome-determinative rules. The application of outcome determinative rules proceeds exactly as before, because all sets of reasons, regardless of the sort of reasons they contain, are weighed on a metric established from past cases.

The only troublesome step is the application of the S-rules. If they are to avoid the fate of F-rules and actually bind judges in some future cases, then they must be placed on some metric that establishes when they must be applied. The metric that establishing the weight of the sets of opposing reasons in a case will not work, because not all the opposing reasons will be involved in the determination of the presence of a C-reason. Consider *Lemon* again; the reasons involved in the determination of excessive entanglement are not identical with the reasons involved in the determination of secular legislative purpose. How could they be, if those two prongs are to be independent?[103] Further, pro-defendant reasons prevail on secular purpose but pro-plaintiff reasons prevail on excessive entanglement.

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[102]I am here thinking of instances where a past case causes one to notice a previously unnoticed reason, not anything involving the application of the rules.

[103] There is a different concern that the reasons involved in the excessive entanglement prong and the primary purpose prong are the same, and that the reasons that establish no primary purpose of advancing or inhibiting religion are exactly those that establish excessive entanglement. This is what the Court would later call a "Catch 22" argument. See Bown v. Kendrick, 487 U.S. 589, 615-16 (1988). I ignore this flaw with the reasoning in *Lemon* and operate as if the test is coherent.

The solution is to create metrics indexed to each C-reason. Suppose a past case has only one C-reason. As part of the extraction of S-rules we now produce the S-reasons for and against the C-reason. Whatever party the C-reason favors, there will be S-reasons favoring that C-reason and hence that party. We could stipulate that S-reasons opposing that C-reason are reasons for the other party, but I worry that may let to undesirable results. My more cautious approach is to introduce a negation operator for reasons (¬) so $\neg\mathbb{R}^{p}_{n}$ means $\mathbb{R}^{p}_{n}$ does not obtain and likewise for $\neg\mathbb{R}^{d}_{n}$. We allow S-reasons to support either a C-reason of the same polarity, or the negation of a C-reason of the opposite polarity. Thus the following sort of S-rule is permitted:

S-Rule': $\{R^{d}_{n},\ldots R^{d}_{m}\}\rightarrow \neg\mathbb{R}^{p}_{n}$.

The court's determination of the presence of the C-reason or its negation establishes a weighing between the competing sets of S-reasons and this weighing is binding.

I will illustrate using the now familiar *Lemon* Test. The second prong was ignored by the court, so no changes are made to it here. The first prong of secular legislative purpose is where this approach makes a difference. Let $\mathbb{R}^{p}_{1}$ be the absence of secular purpose. Let $\{R^{p}_{1},\ldots R^{p}_{m}\}$ be the set of simple reasons favoring a finding that there is no secular purpose found in the court's discussion in *Lemon*. Let $\{R^{d}_{1},\ldots R^{d}_{m}\}$ be the set of simple reasons favoring a finding that there is a secular legislative purpose, i.e. in favor of $\neg\mathbb{R}^{p}_{1}$, again from the court's discussion in *Lemon*. Since the court ruled for the defendant on this issue, the first prong creates the following rule:

Prong 1 S-Rule: $\{R^{d}_{1},\ldots R^{d}_{m}\}\rightarrow\neg\mathbb{R}^{p}_{1}$

Further, it generates the following weighing of reasons: $\{R^{d}_{1},\ldots R^{d}_{m}\} > \{R^{p}_{1},\ldots R^{p}_{m}\}$ with respect to $\mathbb{R}^{p}_{1}$. Should a case come up where $\mathbb{R}^{p}_{1}$ is at issue and $\{R^{d}_{1},\ldots R^{d}_{m}\}$ and $\{R^{p}_{1},\ldots R^{p}_{m}\}$ exhaust the sets of relevant reasons, the judge is bound to hold that $\mathbb{R}^{p}_{1}$ does not obtain. S-rules

thus allow for the construction of a precedential doctrine regarding what counts as a secular legislative purpose, or an inherently dangerous activity, and so on.

Another illustration without the triple-prong structure of *Lemon* will be helpful. In *Terry* v. *Ohio*, 392 U.S. 1 (1968), the Supreme Court held that a police officer may perform a "reasonable search for weapons" if he reasonably believed that "he is dealing with an armed and dangerous individual."[104] I what follows I assume the defendant is the suspect. Letting $\mathbb{R}^{p}_{1}$ be a reasonable search for weapons and $\mathbb{R}^{p}_{2}$ be defendant believed plaintiff was armed and dangerous at the time of the search, we can cast the rule as follows:

Terry Rule: $[\mathbb{R}^{p}_{1}, \mathbb{R}^{p}_{2}] \rightarrow D\text{☺}$.

Subsequent cases applying the Terry Rule fleshed out what constituted "a reasonable search" and a reasonable belief that the individual is armed and dangerous.[105] These cases entrench the Terry Rule, but also introduce S-Rules that establish settings in which later courts must find that $\mathbb{R}^{p}_{1}$ and $\mathbb{R}^{p}_{2}$ obtain. For example, *Pennsylvania* v. *Mimms*, 434 U. S. 112 (1977) states "the bulge in the jacket permitted the officer to conclude that Mimms was armed and thus posed a serious and present danger to the safety of the officer."[106] This can be capture by the following rule, where R^{p}_{1} is the presence of a visible bulge in the defendant's jacket and $\mathbb{R}^{p}_{2}$ is as before,

Mimms Rule: $[R^{p}_{1}] \rightarrow \mathbb{R}^{p}_{2}$.

Rules like this can then represent the doctrine built up around the Terry Rule.[107]

In accommodating non-outcome-determinative precedential rules, I have stretched my

[104] Terry v. Ohio, 392 U.S. 27 (1968).
[105] *See* Arizona v. Johnson, 555 U.S. 323 for a thorough (and unanimously approved) discussion of the cases fleshing out the Terry Rule.
[106] Pennsylvania v. Mimms, 434 U. S. 106, 112 (1977)
[107] *See* Arizona v. Johnson, 555 U.S.3 323 for summary of the doctrine.

theory as far as it will go. I am not convinced that it ought to be stretched even this far, since I am not convinced that such "rules" are part of precedent. I try to take seriously the distinction between *ratio decidendi* and *obiter dicta*. This requires differentiating the precedential portion of an opinion (the *ratio*) from the rest (the *dicta*), which is merely persuasive. S-rules are never sufficient to determine the outcome of a case. Many of them are not even necessary, for example, the S-rules which yield legal reasons favoring the losing side, as we see in *Lemon*. As a whole, they strike me as falling on the *dicta* side of the distinction (or end of the spectrum) between *ratio* and *dicta*, although I am far from certain.

Moreover, if we do treat S-Rules as precedent, it is not clear why we should stop there. After all, judges do not simply receive a list of nicely stated S-reasons. They must determine the S-reasons from facts and the facts from evidence and so on. Each step could be characterized as involving default rules. Are those rules precedent as well? What of the rules that characterize the process used to arrive that those rules? This problem motivates treating only the R-Rules as precedential.

This raises a final point: the existence of overdetermined cases and framework cases effaces the distinction between *ratio decidendi* and *obiter dicta* that was used to support nonmonotonic theories.[108] True devotees of that distinction may want to write off both sorts of cases as judicial mistakes that a theory of legal reasoning ought to ignore. Or they may claim that when the cases are read properly exceedingly few are actually overdetermined or framework cases. For example, I have suggested ways of reading *Lemon* that avoid casting it as a framework case.[109] I do not attempt to argue for a position on this issue here. My goal has just been to show how the theory could allow for these sorts of cases, thereby broadening its appeal.

[108] See *supra* p.46.
[109] See *supra* p.66.

7. Conclusion

This article introduced concepts from logic and computer science focusing on nonmonotonic logics with which many legal theorists may not be familiar. It argued that the best theories of common law reasoning must make uses of such logics. It then presented one nonmonotonic theory that has been discussed in the legal theory literature. Finally, it augmented that theory to accommodate overdetermined cases and framework cases. The augmentations revealed some limits of the theory's malleability. The further one's conception of precedent strays from the *ratio*/*obiter dicta* distinction, the more difficult that conception is to cast within the theory.

The introduction of S-Rules gives a theory that is compatible with precedent involving rules that do not determine the outcome of a case, but that appears to the be the broadest conception of precedent the theory can accommodate. My S-Rules are similar to constructions found in insightful work by Bram Roth,[110] so I will conclude with a comparison of the two approaches. Both approaches makes use of precedent at an intermediate level between rules that determine outcomes and simple factors (or reasons on my account). That is, both approaches accommodate precedents establish higher-level reasons that themselves trigger higher-level precedents. Both accounts can use hypothetical reasons, mine by allowing hypothetical reasons to be extracted from an actual case, Roth's by allowing hypothetical cases in the case base.[111] Roth would simply need to allow actual cases to introduce hypothetical cases into the case base to match my theory. For example, to get an analysis of *Lemon* parallel to mine, Roth must treat *Lemon* as adding two hypothetical cases to the case base, one for the primary result prong and

[110] Bram C. Roth, "Case-Based Reasoning in the Law: A Formal Theory of Reasoning by Case Comparison" (Nov. 26, 2003) (unpublished Ph.D. dissertation, Maastricht University) (on file with Maastricht University Library, Maastricht University).
[111] *Id*. at §3.10.1.

one for the legitimate secular purpose prong.

The approaches differ in a number of ways. First, my account is rule based, whereas Roth's is explicitly not so.[112] This allows my account to go "beyond" *a fortiori* reasoning, which is unsurprising given that this motivated the account upon which mine is built.[113] On Roth's theory, a judge is only bound by a precedent favoring one party when the current case has at most the same reasons for the other party and at least the same reasons for the favored party.[114] On my theory, for example, the judge is bound by a pro-plaintiff case when the current case has at most the same reasons for the defendant and has the reasons for the plaintiff found in the antecedent of the rule from the past case.[115] Since the reasons in the antecedent need not encompass all the pro-plaintiff reasons in the past case, this means that my theory holds that the judge is bound in at least as many cases as Roth's theory, and likely more.

Roth's approach is roughly equivalent to my approach plus a requirement that the rules from a past case include all the reasons in favor of the prevailing side. Although the difference may seem slight, it is important to the maintenance of a meaningful distinction between *ratio* and *dicta*. That distinction requires that some of the opinion be inessential to its force as precedent, but Roth's approach treats precedent as involving all the reasons for each party involved in the case. Thus, it is hard to see what is left in the opinion to play the role of *dicta*. Note that *dicta* is not meaningless or irrelevant, since it may be persuasive, but simply inessential to decide the case.[116] Further, and unsurprisingly, given its methodology, Roth's system is not amenable to

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[112] *Id.* at §2.2.
[113] Horty and Bench-Campon, *supra* note 64, at 183-84.
[114] *See* Roth, *supra* note 110, §3.
[115] This ignores S-Rules, but the parallel statement for when they are binding is obvious.
[116] One might ask why judges include reasons favoring the prevailing party that are not in the antecedent of the rule used to decide the case. I think there are a number of mutually consistent explanations. First, these reasons may matter to other decisions made in the opinion, such as the setting of damages or a decision to award attorney's fees. Second, these reasons may be needed to provide a coherent narrative for the facts of the case. The importance of such narratives is discussed in F Bex, Trevor J. M. Bench-Capon & B Verheij, *What Makes a*

entrenching rules through multiple cases.

A second difference is perhaps more stylistic than substantive, though it is still important. Roth's view of precedent is much more fine-grained than mine regarding the application of precedent to fact finding. One can think of judicial determinations as spanning a spectrum from purely factual determinations (answers to "questions of fact") to purely legal determinations (answers to "questions of law"). On the factual end are the determinations that a jury could have made, while the legal end is the sole providence of the judge. I envision the complex reasons that my S-Rules flesh out as falling on the legal side of the spectrum, though not at the very end. Roth seems to envision precedent as controlling more factual determinations as well, such as whether having punched a supervisor constitutes a serious act of violence.[117] I am not sure I would say such determinations are subject to precedential constraint, although past cases may be persuasive. This difference may be due to differences in the legal systems on which we are focused. I am focused on the U.S. legal system, which gives trial courts fact finding discretion, meaning such findings are unlikely to be overturned on appeal. Moreover, the U.S. system permits juries to make a number of determinations that seem to fall within Roth's view of precedent. Juries are not subject to precedential constraint and are not supposed to even be influenced by past cases. Roth is looking at the Dutch legal system, where there are no juries and appellate courts review factual findings *de novo*, meaning an appeal is essentially a fresh

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Story Plausible? The Need for Precedents, LEG. KNOWL. INF. SYST. 23–32 (2011). For example, that the plaintiff and defendant in a contract case are related may not matter for the resolution of a contract dispute, but it may explain why these parties contracted with each other, which fills out the narrative of negotiation, contract, and breach. Third, giving a relatively complete account of the facts is a customary part of opinion writing in common law jurisdictions.

The exact influence of *dicta* of this sort is beyond the scope of this project. However, an interested reader can use the following exercise to see how pervasive such *dicta* are: pick an illustration from any Restatement of the law with the opinion upon which it is based. The illustrations are single paragraph narratives involving "A" and "B" that demonstrate the rule of the case. The actual opinion is, of course, much longer and more detailed. One will find a number of reasons for each party that are omitted from the illustration.

[117] *Id.* at §3.6.4.

trial.[118] Such a system seems friendlier to precedents that govern determinations on the factual end of the spectrum.

A third difference is that Roth's theory is much more sensitive to the structure of the legal argument found in a case. He identifies which factors support or attack a conclusion and which factors support or attack the inference leading to that conclusion.[119] I make no such distinctions with respect to reasons. This may be a weakness of my theory, but I am hesitate to import such structure into precedential rules because I am not sure it is needed to capture the *ratio* of a case.

Those are the differences between the two theories. Though I am partial to my own theory, Roth's view raises the problem of how to characterize the reasons in a *ratio*, discussed *supra* at Ch.1, §6, in an especially pointed way. If the *ratio* is too abstract, for example, "if defendant was unjustly enriched, then rule for the plaintiff," then it will not offer much constraint because it is too difficult to know when it is triggered. Yet, if it is not abstract enough, then it will not offer much constraint because it is too seldom triggered. Roth avoids this by (roughly) cataloging rules for each conclusion in an opinion, making cases generate abstract and detailed rules. I have argued that only some of these rules are genuine precedents (*ratios*), but I have at present no explanation of which ones these are. I do, however, suggest that this difficulty is a jurisprudential one inherit in the concept of a *ratio* and not a flaw particular to my theory. Therefore, the costs of accepting Roth's objection are high: the concept of *ratios* must be abandoned. This is reason enough for me to keep working within my theory to resolve this problem.

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[118] J.F. Nijboer, *The Criminal Justice System*, *in* AN INTRODUCTION TO DUTCH LAW 399, 409 (Jeroen M. J. Chorus, P. H. M. Gerver, E. H. Hondius eds., 4th ed. 2006).

[119] *See* Roth, *supra* note 110, §3.

Chapter 3

Jurisprudential Implications

1. Introduction

In the previous chapter, I detailed my theory of common law judicial reasoning. It begins with the current judge processing a past case. From the past case he extracts a rule (or rules), which has a set of reasoning favoring the prevailing the party (e.g., the plaintiff) as the antecedent and a judgment for that party as the consequent. He also extracts the complete sets of reasons for the losing party as discussed in the opinion. This information yields a weighing of reasons, namely, that the set of reasons in the antecedent of the rule outweigh the complete set of reasoning favoring the losing party. This weighing is the precedential force of the case. I noted that the reasons weighed could be hypothetical, although this would not be common.

Further, I introduced a distinction between simple (S-reasons) and complex (C-reasons) reasons, wherein simple reasons are those a judge may readily infer from the facts of a case before him while the complex reasons are those that require further examination, and about which the opposing parties are probably arguing. This distinction grounded a new type of rule of precedent (an S-rule), which had a set of S-reasons as the antecedent and a set of C-reasons (likely a singleton) as the consequent. These S-rules were given precedential force by indexing S-reasons to C-reasons and their negations. That is, in cases where an S-rule for a C-reason (e.g., $\mathbb{R}^{p}_{1}$) is established, the judge reading it extracts the S-rule and extracts a weighing on which the set of S-reasons in the antecedent of the S-rule outweighs the set of S-reasons opposing that C-reason (the S-reasons in favor of $\neg\mathbb{R}^{p}_{1}$). This permits binding precedential rules that do not

determine the outcome of the case. Finally, I discussed why S-rules may not be desirable given their opposition to the distinction between *ratio* and *dicta*.

This chapter examines the jurisprudential implications of the theory established in the previous chapter. In doing so some of its strengths and weaknesses are revealed. I begin, as much modern scholarship in legal philosophy does, with a discussion of legal positivism and the Hart/Dworkin debate. I will show that my theory is compatible with positivism and offers a compelling solution to Dworkin' problem of "hard cases." Further, I will argue that my theory can approximate Dworkin's interpretivism in many, but not all, respects.

Second, I consider approaches, very similar to Dworkin's, that involve the construction of the best theory that explains certain case results. Next, I show how my view relates to the recently influential legal theory of pragmatism. I then turn to the issue of substantive theories of law and the most influential jurisprudential movement in the past 50 years, law and economics. I explain how the insights of this movement can be captured within my framework.

Lastly, I outline areas for further research that would improve my theory. The most obvious is an account of the interpretation of past opinions and statutes. Also important is an examination of the nature of reasons and the process of identifying reasons that prevents just any fact from being a reason. My final suggestion is further research into deriving weighing of reasons from multiple cases.

2. Rules, Principles, and the Hart/Dworkin Debate

In his article, "The 'Hart-Dworkin Debate': A Short Guide for the Perplexed," Scott Shapiro notes,

> For the past four decades, Anglo-American legal philosophy has been preoccupied –some might say obsessed – with something called the "Hart-Dworkin" debate. Since the appearance in 1967 of "The Model of Rules I," Ronald Dworkin's seminal critique of H. L. A. Hart's theory of legal positivism, countless books and articles have been written

> either defending Hart against Dworkin's objections or defending Dworkin against Hart's defenders.[1]

The profession's fixation on this debate is not without reason. It pitted two of the field's best and brightest against each other on questions about the very nature of law, with consequences for "judicial discretion, the role of policy in adjudication, the ontological foundations of rules, the possibility of descriptive jurisprudence, the function of law, the objectivity of value, the vagueness of concepts, and the nature of legal inference."[2]

2.1 The Positivist Position[3]

Since the conceptual scope and sheer volume of participants makes entering the debate a daunting task, I adopt a more modest course of action. I offer two theses–(1) the rule of recognition and (2) the difference between good and legal–which I take to characterize the core of positivism with respect to legal reasoning. Even this will likely strike some as controversial, but it offers a stable and, in my view, accurate picture of positivism's core commitments. Positivism, like Dworkin's interpretivism, is first and foremost a theory about the concept "law." Still, it (like interpretivism) is not completely independent of one's theory of legal reasoning, because the rule of recognition is sensitive to the practices of a society's legal sector. For example, if one thought legal reasoning was divine revelation, but there was no evidence of this in practice of a society's legal actors then one must abandon positivism.[4]

In contrast, my theory is first and foremost a theory of legal reasoning. Yet, it too is not entirely independent of one's theory of law. However, I will show that it is largely compatible

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[1] Scott J. Shapiro, *The " Hart-Dworkin " Debate : A Short Guide for the Perplexed*, *in* RONALD DWORKIN 22–55, 1 (Arthur Ripstein ed., 2007).
[2] *Id* at 3-4 (citations omitted).
[3] In this section I assume, contra critics like Posner that common law reasoning is consistent with positivism. *See* Richard A. Posner, *Pragmatic Adjudication*, 18 CARDOZO L. REV. 1, 3–18 (1996).
[4] One's theory of legal reasoning may also be incompatible with any rule of recognition, as divine revelation arguably is.

with the major theories of law found in the literature. In this section, I will show how my theory is compatible with (1) and (2) to establish its consistency with positivism. Then I can turn to Dworkin's criticisms in "The Model of Rules I"[5] and explain the similarities and differences between my theory and Dworkin's view.

As mentioned above, I sketch positivism as composed of a two commitments: (1) the rule of recognition and (2) the difference between good and legal. (1) holds that where there is a society with a legal system, there must be a standard (a rule), evident in the practice of those within the legal system and the obedience of the citizenry, that determines the acceptable sources of law.[6] For example, the standard might recognize the pronouncements of the king or legislative body as sources of law. These sources themselves can create subordinate sources, for example, the U.S. Constitution is a source of law that created the U.S. Congress, which is also a source of law. Laws made by Congress are then subordinate to the law of the Constitution itself. Likewise, state constitutions create common law state courts which can then create law through rulings in cases. A judge extracts the law from these sources and applies it to the case before him. Things are much more complicated in actual practice, as Hart himself knew,[7] but this is the general picture. As my theory focuses on common law judicial reasoning, the relevant source of law is the opinions written by past judges. Note that the rules of precedent within my theory are not rules of recognition. They are rules whose status as law can be traced to a source that meets the requirements of the rule of recognition.

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[5] Ronald Dworkin, *The Model of Rules*, UNIV. CHICAGO LAW REV. 14 (1967) [hereinafter, Dworkin, *The Model of Rules*]. Reprinted in Ronald Dworkin, *The Model of Rules I*, *in* TAKING RIGHTS SERIOUSLY (1978). I use "The Model of Rules" because it is clearest and most self-contained of Dworkin's criticisms of positivism and hence the easiest to guide a reader through. Dworkin has offered additional criticisms, such as his "semantic sting" argument, in later works that I do not think are relevant to the issues I address here. *See* RONALD DWORKIN, LAW'S EMPIRE (1986) [hereinafter Dworkin, LAW'S EMPIRE]; RONALD DWORKIN, JUSTICE IN ROBES (2008) [hereinafter Dworkin, JUSTICE IN ROBES].

[6] *See* H.L.A. HART, THE CONCEPT OF LAW 204 (3rd ed. 2012).

[7] H.L.A. Hart, *Positivism and the Separation of Law and Morals*, 71 HARV. LAW REV. 593–629 (1958).

There is a distinction between two sorts of positivism with respect to (1), as well as (2). Inclusive or soft positivism is committed to (1).[8] Exclusive or hard positivism is committed to the stronger thesis that the rule of recognition cannot not make use of moral terms, i.e. the law can be identified using only social (amoral) facts.[9] In what follows I try to note whenever a difference between the two types of positivism relates to my theory.

The second positivist commitment is (2), the difference between good and legal. It deals with the relationship between morality and legality and comes in two strengths. In its weaker form it says that "[there *could* be a legal system in which the] legality of a norm does not depend on any of its moral properties."[10] It asserts that there is no conceptual connection between legality and morality. This captures the view of soft positivists.[11] As expected, hard positivists adopt the stronger form that says that there *could not* be a legal system in which the legality of a norm depends on any of its moral properties. [12] It asserts a necessary/conceptual gulf between legality and morality. I attempt to discuss both when the difference is relevant, but I use (2) to mean the weaker thesis.

Having explained in a preliminary way the two central theses of positivism, we can see whether they comport with my theory. (1) poses no problems for my view. My theory depends on taking precedent as a form of law, which requires treating past court opinions as valid sources of law. Nothing in (1) conflicts with this. (2) raises greater concerns. Since my theory is just a theory of common law judicial reasoning and a not a complete theory of all legal reasoning, let alone all possible legal reasoning, it does not rule out any sort of legal system. Non-common

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[8] *See* Leslie Green, *Legal Positivism, in* THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N Zalta ed., Fall ed. 2009); Jules L Coleman, *Negative and Positive Positivism*, 11 J. LEGAL STUD. 139 (1982).
[9] *Id.*
[10] Shapiro, *supra* note 1, at 23.
[11] *See* Leslie Green, *The Concept of Law Revisited*, 94 MICH. L. REV. 1687 (1996); Coleman, *supra* note 8.
[12] *See* Green, *supra* note 8.

law legal systems are obviously possible, as they dominate Continental Europe. Thus, even if my theory incorporates some moral elements, it is compatible with the possibility of legal systems and modes of legal reasoning without such elements.

Still, it is interesting to ask whether my theory incorporates such elements. The answer depends on the manner of extracting rules of precedent and the related weighing of reasons,[13] on which I have tried to remain scrupulously silent. In the discussion of Dworkin's views below I offer some methods of extraction that involve norms of political morality. Additionally, my theory's use of reasons entails that even more traditional methods of extraction may depend on morality. For example, one could hold that the current judge (the extractor) reads the opinion looking for facts that she believes are reasons favoring one party or the other. She then extracts the rule and the weighing of reasons using these reasons. This introduces a conceptual connection to morality insofar as the identification of which facts are reasons is conceptually connected to morality.

However, methods of extraction that minimize the role of moral judgments are available, namely, treating rule extraction as a search for what the prior judge, in the opinion, took to be reasons in favor of his decision.[14] Since these facts need not actually be reasons, this process reduces the influence of the moral views of the current judge. However, if precedent is to function as a significant constraint, then the extractors should be charitable in interpreting the past court as having treated as reasons what they (the extractors) take to be the actual reasons. Otherwise, they will increase the potential for finding novel reasons in the present case which

[13] One could separate these two and have distinct methods of extracting the weighing of reasons and the rule. I ignore that possibility here.

[14] As we will see *infra*, at §2.3 and §3, other methods of rule extraction are available as well. While I hope to show why I prefer this approach to extraction to an alternative focused on the actual reasons present, I do not dream that I have established that this approach bests all the alternatives.

allow it to be distinguished.[15] Note that this strategy allows a judge to distinguish on the basis of a fact acknowledged in the past case if she thinks the past judge did not treat that fact as a reason. This does limit the power of precedent,[16] but it also allows courts to adapt to new information.

For example, carriers of highly explosive materials are typically subject to the highest standard of care for the purposes of tort claims.[17] Hence, in a tort suit where the plaintiff was harmed by the explosion of such material, the fact that the defendant was transporting highly explosive material is a reason in favor of the plaintiff. Suppose a judge has a suit in tort before her in which the plaintiff is suing for damages caused by the explosion of the defendant's truck carrying Chemical X. There is a very similar past case involving Chemical X that held for the defendant. However, at the time that case was decided it was not known that Chemical X was highly explosive. Now this fact is well known. My approach allows the current court to distinguish the current case on the basis of Chemical X being highly explosive, even though that fact was present in the past case as well. We can say that, although that fact obtained, the past court failed to treat it as a reason and hence it is a novel reason in this case.

Extracting rules in this way limits the role of the current judge's normative (and potentially moral) commitments in common law judicial reasoning, but does not eradicate it completely. Distinguishing is permitted in the presence of a novel set of reason or reasons, i.e. a reason or set of reasons that were not present in the past case and favor the party which lost in the past case. Whether a particular factual difference is a novel reason can depend on moral considerations: for example, the effect this factual difference has on overall happiness may

[15] *See supra* at Chapter 1.

[16] As I have admitted earlier, *supra* at Chapter 2, the force of precedent depends on some agreement amongst judges on what count as reasons, or simple reasons, or relevant facts, etc. I discuss some suggestions for researching the nature and genesis of this agreement at the end of this chapter. As I argued in the first chapter, opposing views face similar issues.

[17] *See* RESTATEMENT (SECOND) OF TORTS, 519, 520 (1979).

determine whether it is a reason in favor of some party. If there is a novel reason, the judge has discretion (more on this later) to determine whether the novel reason is sufficient to outweigh the opposing reasons. This determination may be a species of moral reasoning. My theory does not attempt to describe or justify that process; rather, it explains when common law systems permit the judge to engage in it.

Here I must distinguish two claims: (1) the theory is silent regarding the right weighing of the reasons and (2) the theory entails that there is no right weighing of the reasons. Holton attacks theories like mine because he thinks that (2) is true of them, but they are in fact only committed to (1).[18] The theory is compatible with any account of how the judge should weigh the reasons–particularists, utilitarians, Kantians, contractualists, etc. are all welcome. Any one of these will endorse some weighings and reject others. Given the right/best/correct account, we can then determine when a judge acts wrongly in exercising this sort of discretion. Hence my theory is entirely compatible with thinking that in some cases judges weigh novel reasons wrongly.[19]

The weighing a judge produces in exercising this discretion is in some sense a change in the law. For soft positivists, the proper weighing may have been part of the law prior to the judge's decision. For hard positivists, the judge is literally making new law as the weighing only becomes part of the law once the judge performs it. But both accounts largely agree with my theory that once she makes the decision in a common law system the weighing gets a status it did not have before: it becomes precedent. The hard-positivist view is that it becomes precedent at

[18] Richard Holton, *Modeling Legal Rules*, *in* PHILOSOPHICAL FOUNDATIONS OF LANGUAGE IN THE LAW 165–183, 15–18 (Andrei Marmor & Scott Soames eds., 2011).

[19] One might ask whether the judges' error is still a legal error on my theory. The answer is "it can be, since my theory does not exhaust the realm of legal reasoning." On the soft-positivist picture, legal reasoning can incorporate moral reasoning, so the error is still straightforwardly legal. On the hard-positivist picture, the law can require the application of extra-legal norms. Although the reasoning about the extra-legal norms is not legal reasoning on this view, the failure to apply the right norms is still a legal error since it's a failure to do as the law requires. Either way the error is a still a legal error. The only difference is that a soft-positivist might (but wouldn't necessarily) see my theory as a less complete theory of legal reasoning than the hard-positivist.

the same time it becomes law and a soft positivist could take the same position.

Admittedly, a soft positivist *could* (though he need not) urge that the common law incorporates the moral theory that governs the discretionary weight of reasons. On this approach the judge's weighing could be contrary to the law. Such a theory could have a mechanism for making the initially non-law judgment into law. Perhaps, the judgment must gain popular acceptance or remain undisturbed for a period of time. The mechanism would be a filter in the path from decision to precedent, it would not require a change in my underlying theory. Still, a soft-positivist may insist that no such mechanism exists. In addition to bringing him very close to Dworkin's view, this vitiates precedential constraint. Precedential constraint, recall, happens when precedent obliges a judge to make a decision she thinks is wrong. If all law, and hence all precedent, must comport with the right theory governing the weight of reasons, then a judge who recognizes this will be never be obliged to make a decision she thinks is wrong. The judge will perforce think her moral theory is correct, so the law will only include past decisions (rules and weighings of reasons) that she thinks are correct. Since she agrees with all the binding weighings, she will not be obligated to follow a weighing with which she disagrees. I know of no one who holds this particular soft-positivist position, but it is inconsistent with my theory. However, it is simply an instance of a more general incompatibility: any theory that rejects precedential constraint is incompatible with my theory. The incompatibility does not stem from a special feature of positivism.

The discretion my view gives judges looks compatible with the general commitments of positivism. An example using Hart's influential treatment of discretion is helpful.[20] Hart thought judges had discretion in cases where the legal rule was indeterminate or legal rules conflicted.[21]

[20] H.L.A. Hart, *Discretion*, 127 HARV. LAW REV. 652–665 (2013).
[21] HART, *supra* note 6, at 130–33.

For example, a legal source might say "No operating vehicles in the park." Some things, like taxicabs, are clearly within the extension of "vehicles" in the statute. Other things, like trees, are clearly outside the extension. But for third class of things it is not clear whether they are vehicles. Hart uses the example of a toy motor car.[22] He says the judge has discretion to determine if the toy is a vehicle. In making this determination, she is making law.

Hart's treatment of discretion comes into contact with my theory at two points. Consider the judge's determination regarding the toy car. Suppose she holds that it is a vehicle and therefore decides for the plaintiff. This can be given precedential force via our S-rules. We can operationalize the prohibition on vehicles with this rule:

R1: If defendant is operating a vehicle in the park, then rule for the plaintiff.

R1 treats "the defendant is operating a vehicle in the park" as a reason in favor of the plaintiff. Let's label that reason "R^{p}_{1}." We want to characterize the judge as using R1 to hold for the plaintiff. One strategy is to use the vehicle's being a toy as a reason in favor of the defendant (call it "R^{d}_{1}"), and then the force of the ruling is that R1 trumps a rule involving R^{d}_{1} and the other pro-defendant reasons. But as we have seen in Chapter 2, this strategy won't work if the court finds that the toy is a vehicle but an exception applies so the defendant prevails. S-rules allow an independent representation of the determination regarding the toy. They say that the reasons favoring treating the toy as a vehicle (call them "R^{v}_{1}") outweigh those opposing such treatment (call them "$R^{\sim v}_{1}$"). We then get the S-rules:

SR1: $R^{v}_{1} \rightarrow R^{p}_{1}$

SR2: $R^{\sim v}_{1} \rightarrow \neg R^{p}_{1}$

with the ordering that SR1 trumps SR2 (SR1 > SR2). This ordering is part of the new law that

[22] Hart, *supra* note 20, at 662.

the judge makes via her decision, because prior to her decision judges were not bound by precedent to give SR1 priority over SR2.

My theory also gives an explicit representation of cases in which established rules of precedent conflict. Suppose the current case involves this set of reasons: $\{R^d_1, R^d_2, R^p_1, R^p_2\}$. Further, suppose, we have the following rules from past cases:

R2: $R^p_1 \rightarrow P☺$

R3: $R^d_1, R^d_2 \rightarrow D☺$

R4: $R^p_2 \rightarrow P☺$

Also suppose the following ordering: R3 > R4. Now the case triggers conflicting rules, since R2 and R4 are inconsistent with R3. Under the current ordering the judge has discretion to rule for the plaintiff using R2 or using a new rule, R5: $R^p_1, R^p_2 \rightarrow D☺$. These are distinct options, the first adds R2 > R3 to the precedential ordering while the second does not, instead adding R5> R3. Again, the judge's decision will make new law as the precedential ordering will be changed.

I think I have established the compatibility of my theory with positivism, broadly understood. Further, I have shown that my theory nicely compliments the treatment of judicial discretion offered by the Arch-Positivist, H.L.A. Hart. I now turn to the other side of the debate.

2.2. Dworkin's Doctrine

In opposition to the positivist position sits Dworkin's influential doctrine of interpretivism. Dworkin takes the concept "law" to be interpretive. To determine what the law is in a community requires interpreting the past history of certain political institutions in that community. This interpretative process involves constructing the theory–composed of weighed principles–that *best justifies* the institutional history. "Best justifies" here is explicitly

understood as involving the values of political morality. Hence Dworkin rejects my second thesis of positivism as the law is inextricably bound up with morality. Similarly, he rejects the first thesis insofar as it countenances an amoral rule of recognition.[23]

In discerning whether my theory is compatible with Dworkin's view, the first question must be whether Dworkin's theory permits precedential constraint, because the inquiry ends there if it does not. Dworkin can accommodate a constraint akin to, but distinct from Alexander and Sherwin's concept of precedential constraint. The process of interpretation must be sensitive to the results in past cases, as those are part of the institutional history. For example, suppose a judge is deciding a case, and the institutional history includes a case, C1, with a pro-plaintiff result. The judge thinks C1 was wrongly decided. The laws given by the best interpretation of this institutional history prescribe a decision in the present case for the plaintiff. Let C2 be the decision that the judge thinks C1 should have been. Suppose further that if we replace C1 with C2 in the institutional history, then the best interpretation of the resultant counterfactual institutional history yields laws that prescribe a decision in the present case for the defendant. Then we can say that the judge is compelled by C1 to decide the present case contrary to what she thinks would be best in the absence of precedent.

As I discussed in Chapter 1, Alexander and Sherwin define precedential constraint as involving a judge following a rule solely in virtue of its status *qua* rule and not due to systematic concerns. The force of precedent on Dworkin's interpretivism is entirely due to systematic concerns regarding how it fits with the rest of the relevant history and political morality. Nevertheless, both concepts require a judge to follow the result in a past case despite her thinking that result was incorrect.

[23] He also rejects (1) on the grounds that it is incompatible with certain types of disagreement about the content of law, but that is irrelevant to the present treatment. *See* DWORKIN, LAW'S EMPIRE, *supra* note 5, at 45–86.

Can my theory handle this weaker form of precedential influence? Not quite. One attempt would be to allow reasons of the following form, called DR for "Dworkinian Reason":

> $DR^{d/p}_{n}$: Ruling for the defendant/plaintiff is sanctioned by the best interpretation of relevant political practices.

This would seem to give the process of interpretation a central role in determining the result of a case as well as when a case can be distinguished. But DRs are not the sort of reasons that can be weighed. Once a judge has determined that a DR favors one party, her decision, according to Dworkin, is made: that party must prevail. Hence there is no point in trying to make them a part of the judge's reasoning, for they are the conclusion of her reasoning.

Ultimately, Dworkin's theory is incompatible with mine because he does not require that a past *ratio* must be followed unless the present case involves a novel reason. If the past *ratio* conflicts enough with political morality, then a court, lacking the power to overrule it, may distinguish it regardless of the presence of a novel reason. In these instances lower courts are effectively given the power to overrule in guise of distinguishing. On my theory, lower courts can try to bury a disliked precedent by distinguishing on the basis of decreasingly significant reasons, stacking new rules atop the old one in the ordering. Yet, this burial will always be incomplete; the lower courts cannot remove the old rule completely and insert a new one.

My theory can approximate Dworkin's view in many respects, especially his theory of legal principles. Dworkin's famed criticism of positivism in the "Model of Rules" concisely illustrates his understanding of legal principles and his argument that they are incompatible with positivism.[24] The next section reviews this criticism, demonstrating that my theory provides one kind of positivist response and revealing how closely my theory can mimic interpretivism.

[24] Dworkin, *The Model of Rules*, *supra* note 5.

2.3 Dworkin's Criticism in "The Model of Rules" and Accommodating Interpretivism

Dworkin's "The Model of Rules" attacks positivism on a number of fronts,[25] but I will focus on his charge that positivism fails because it is committed to a conception of the law as composed solely of all or nothing rules[26] (what I have previously called "strict rules"). I do this despite the fact that the critique was not particularly effective. As Hart notes:

> But I certainly did not in my use of the word 'rule' claim that legal systems comprise only 'all or nothing' standards or near conclusive rules.[27]

Rather, I focus on this part of Dworkin's attack because my theory answers it directly, while the rest of his criticisms only obliquely affect my view. That is not to imply that those criticisms are unimportant. Rather, I set them aside because I have nothing new to add. My theory offers no new rebuttals to these criticisms. If the criticisms convinced one of the truth of interpretivism, the rest of this section will likely not change his mind. He will still disagree with the conception of precedential constraint embraced by my theory.

Returning to the attack based on strict rules, in his essay Dworkin argues, using *Riggs v. Palmer*[28] and *Henningsen v. Bloomfield Motors, Inc.*[29] as examples, that cases are decided using legal "principles" rather than "rules."[30] In these hard cases, we can discern that judges are not merely applying all or nothing rules. Rules, per Dworkin, cannot conflict, nor can they have a dimension of weight or importance.[31] When triggered, they necessitate a particular outcome.[32] Principles, on the other hand, can conflict and are accorded varying weights. They do not

[25] See generally Dworkin, *The Model of Rules*, *supra* note 5.
[26] *Id.* at 24.
[27] Hart, *supra* note 6, at 263.
[28] 22 N.E. 188 (N.Y. 1889).
[29] 161 A.2d 69 (N.J. 1960).
[30] Dworkin, *The Model of Rules*, *supra* note 5, at 23–31.
[31] *Id.* at 23–29.
[32] *Id.* at 26.

necessitate any particular outcome; they simply "state[] a reason that argues in one direction."[33] An example is helpful: "if the defendant was voluntarily intoxicated, then rule for the plaintiff" is a rule, while "voluntary intoxication does not excuse reckless behavior" is a principle. The former necessitates a result, a ruling for the plaintiff, while the latter simply supports ruling against the defendant if he was voluntarily intoxicated. The latter can be defeated by a weightier opposing principle.

My theory is a full-frontal assault on these claims. My rules can conflict and be weighed through the process of prioritizing the rules. They do mirror the form of Dworkin's rules, specifying a particular result in the consequent. However, not every one of my rules "necessitates"[34] a result, precisely because they can be trumped higher priority rules. Given the complete collection of defaults and priorities, we could identify the set of all rules that are not trumped by any other rules–call these the "highest priority rules." Even these rules will not "necessitate" a result in every case in which they are triggered, because the judge will have the option of distinguishing the rule (introducing a new rule with a higher priority) in cases with novel reasons. The default logic underlying my theory formalizes just the sort of rules that Dworkin thinks impossible.[35]

This raises the question of whether my rules can play the role of Dworkin's principles, whether I have offered a formalization of his theory with change in terminology. Again, the answer is "not quite." One problem is the generality of Dworkin's principles. He gives the

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[33] JOHN F HORTY, REASONS AS DEFAULTS (2012) offers an account of default rules doing exactly this. Since my account is based on his, it should be no surprise that defaults on my theory play this same functional role.

[34] Dworkin, *The Model of Rules*, *supra* note 5, at 27.

[35] I am setting aside the issues created by Dworkin's "right answer thesis," which is logically distinct from his criticisms in "The Model of Rules." *Compare* Dworkin, *The Model of Rules*, *supra* note 5 with Ronald Dworkin, *Is There Really No Right Answer in Hard Cases?*, *in* A MATTER OF PRINCIPLE (1986). The right answer thesis would be equivalent to a system like mine where, for any two opposing sets of reasons, there is an established weighing that favors only one of them. In such a system are no novel reasons, so judges are always subject to a unique legally required outcome.

example of "no one should be permitted to profit …from his own wrong"[36] from *Riggs*. We must convert this into two rules to preserve our standard form:

> R5: If the defendant committed a wrong and will profit if he prevails, then rule for the plaintiff.
>
> R6: If the plaintiff committed a wrong and will profit if he prevails, then rule for the defendant.

We need two rules because the principle is applies to both plaintiffs and defendants. For example, suppose the plaintiff and defendant were engaged in illegal gambling and the plaintiff is suing to collect a debt the defendant incurred. The principle from *Riggs* favors the plaintiff, because otherwise the defendant benefits from the wrong of refusing to uphold an obligation freely entered. But it also favors the defendant, because the plaintiff stands to benefit from the wrong of illegal gambling.[37] Thus, Dworkin's principles cannot be converted into my rules without doing some violence to their form and perhaps content. Nonetheless, R5 and R6 seem to nicely operationalize the force of the *Riggs* principle, namely, that the law forbids plaintiffs and defendants from profiting from his wrong.

The extraction of the principles poses a larger problem. On my theory rules are extracted locally from individual past cases: a case either restates a past rule or introduces a new one. Dworkin extracts his principles globally, [38] from the mass of legal history and political values,

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[36] *Id.* at 23.

[37] The standard result in such cases is a ruling for the defendant. *See* ANDREW KULL, RESTATEMENT (THIRD) OF RESTITUTION AND UNJUST ENRICHMENT 32 (2011).

[38] A technical note: one might wonder whether altering the properties of the weighing relation, >, can allow for a more global extraction of rules. The current relation is asymmetric but non-transitive. *See* John F Horty, *Rules and Reasons in the Theory of Precedent*, 17 LEG. THEORY 1–33, 8, 15–17 (2011). Making the relation transitive, creating a strict partial order over legal rules, strengthens the force of precedent. E.g. suppose R1 favors the plaintiff and from past cases we have R1 > R2, R2 >R3, and R4>R1. This means that R2 favors the defendant, R3 favors the plaintiff, and R4 favors the defendant, because on my view cases only involve weighing conflicting rules. If > is transitive, then it follows that R1 >R3, R4 >R2, and R4 >R3. The first two relations won't have much practical effect, since there is no conflict between either R1 and R3 or R4 and R2. But the last relation will have a practical effect, since in the right circumstances courts will now be bound to rule for the defendant (following R4) rather than the plaintiff (following R3). Hence individual rules are more sensitive to global changes-- R3 is trumped due to results in cases where it was not even triggered. I discuss this in detail

which include justice, fairness, and above all, integrity.[39] Principles explain cases, but they need not be expressed within any one case. A prima facie solution is to introduce a limited form of interpretivism[40] at the ground floor, in the extraction of rules from past cases. That is, let the rules and weighings (the precedential import) of a past case be themselves a function of the best interpretation of past political practices. Instead of focusing on what the past judge took to be reasons or on what the actual reasons in that case were, the judge looking back on a past case extracts the rules and weighings that best cohere with the rest of the (interpretivist) law.

It is not clear how far this solution will take us, as much depends on the workings of the interpretive process. On Dworkin's picture, one starts with a pre-theoretical notion of the relevant data and of how closely a theory must "fit" with the data to count as an interpretation of them.[41] Then, via the process of interpretation guided by political morality, he constructs of a theory justifying this data. Finally, with his theory in hand, he can refine the set of relevant data by expanding it, contracting it, or re-interpreting members of it.[42] Thus there is no fixed set of data to be explained by an interpretation. While one starts with a set of data, any member of it could be removed in the final stage and anything could be added to that set. Hence, prior to interpretation, no single point of data must be explained and every event is potentially datum.[43]

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infra at §6.4.
Still, none of this allows for the content of the rules themselves to be extracted globally. R3 is a creation of an individual case. The global changes shift its priority but not the content of the rule. Finessing the > relation can make precedent less localized, in a sense, but not in the manner Dworkin requires.

[39] DWORKIN, LAW'S EMPIRE, *supra* note 5, at 225.

[40] It must be limited because, as we saw at p.91 full interpretivism is incompatible with my theory.

[41] DWORKIN, LAW'S EMPIRE, *supra* note 5, at 65–68.

[42] Nothing prevents the process from iterating and hence further refining the set of relevant data.

[43] As Nicos Stavropoulos puts it "interpretivism claims that neither question — what are the data and what justifies them — can be answered in a non-normative manner…values select, from among all the facts that could conceivably be determinants of legal duty, the ones that are such determinants, by providing an account that justifies the impact that each precise determinant has on our rights and duties." NICOS STAVROPOULOS, INTERPRETIVIST THEORIES OF LAW (Edward N. Zalta ed., Fall 2008 ed. 2008). It is difficult to conceive how this would work using the value of integrity, because integrity itself seems to require data. One cannot demonstrate integrity without first some fixed point to which one can cohere. Nonetheless, I won't try to work out my misgivings here. Perhaps other values like justice can provide the fixed point.

In the interpretation of cases, presumably the text of the opinion is datum of some importance. If fit with the text opinion is highly valued, then the interpretation of past cases will yield rules similar to those involved in my theory. My theory is compatible with this type of interpretivism in rule extraction. Still, a problem arises if this is the *only* method of extracting rules. If the judge interprets the past cases once, then my theory can take over and build on this interpretation by adding new rules and priorities, which have their content determined in a non-interpretivist manner.[44] However, if this interpretive process is the only manner of extracting rules, then it must be performed after each new case is decided. For example, suppose a judge interprets the past history to decide a case at time, *t1*. Then at a later time, *t2*, she must decide another case. During the time between *t1* and *t2* cases were decided, new laws enacted, and so on, so that the institutional history at *t2* differs from that at *t1*. This change could alter the rules and priorities extracted from any number of cases, hence, the judge must begin anew in extracting rules and priorities. She cannot just append rules and priorities from the intervening cases to old rules and priorities (from *t1*), because the intervening cases can alter the old rules and priorities. Thus there is no method of incrementally building up the case base. On this view, my theory of reasoning amounts to cataloging the results of past interpretations.

On the other hand, if fit with the opinion is not highly valued, then the interpretation of past cases will yield rules that may vary wildly from the opinion. They may not at all look like rules created using what the past judge took to be reasons. One could treat these rules as defaults in a system like mine, but it's hard to see the point in chronicling rules from cases when the cases themselves are largely irrelevant to the content of the rules. The vast majority of legal reasoning

[44] This is very similar to the synthesis of Trevor Bench-Capon & Giovanni Sartor, *A Model of Legal Reasoning with Cases Incorporating Theories and Values*, 150 ARTIF. INTELL. 97–143 (2003) with John F Horty & Trevor J. M. Bench-Capon, *A Factor-Based Definition of Precedential Constraint*, 20 ARTIF. INTELL. LAW 181–214 (2012) offered in the latter article.

on this view is done prior to examining a case, leaving my theory marginalized in the extreme.

To put this another way, this type of interpretivism makes *ratios* nearly infallible, since they will rarely conflict with the demands of the best theory of the remaining legal materials. I'll call the situation where *ratios* are infallible "complete theoretical success." In that situation, the "data" is ensured to cohere with the theory. Hence cases will never exert precedential constraint, even in the Dworkinian sense of the term discussed above because the law given the result in a past case and the (counterfactual) law given a different result in that case are identical. We move away from complete theoretical success by emphasizing the text of the opinion to a greater degree. Situations of nearly complete theoretical success will marginalize case-based reasoning.

Note that the interpretivism I attribute to Dworkin differs from the coherentist approach offered by theorists like S.L. Hurley,[45] who herself attributes a coherentist approach to Dworkin. As Hurley correctly points out,

> While, concerning any particular settled case [i.e. an actual or hypothetical case on which the legal community does or would agree on the proper result], it is possible that the best theory of settled cases may show that it is mistaken, if theoretical coherence overall with settled cases is the standard, then it is not possible for all settled cases to be mistaken; hence coherentist consistency involves a certain element of conservatism. [46]

I take Dworkin's theory to be more thoroughly interpretivist, following Stavropoulos,[47] but nothing rests on that assumption. I will discuss the differences between the two approaches below and then address how my theory fits with coherentism. Hence, so as long as Dworkin holds one of the two positions I will not end up ignoring his view.

Interpretivism allows for what I'll call "complete actual theoretical failure" in that political morality–justice, fairness, etc.– may fail to endorse any of the society's political

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[45] S L Hurley, *Coherence, Hypothetical Cases, and Precedent*, *in* EXPLORING LAW'S EMPIRE: THE JURISPRUDENCE OF RONALD DWORKIN 69–103 (Scott Hershovitz ed., 2006).
[46] *Id.* at 89.
[47] NICOS STAVROPOULOS, INTERPRETIVIST THEORIES OF LAW (Edward N. Zalta ed., Fall 2008 ed. 2008).

practices[48] at all; there may be no justifying theories available for that data and hence no best (or set of best) interpretations. This could happen if the society is profoundly immoral, for example. Hurley's coherentism is compatible with large scale theoretical failure, since the unmistaken settled cases may all be hypothetical. That is, the coherentist theory might not explain any decided cases, instead explaining only some settled hypothetical cases. These settled hypothetical cases are cases that have results upon which the legal community *would* agree (if they considered them). However, these dispositions regarding hypothetical cases are part of society's political practice. Therefore, Hurley's theory cannot countenance complete actual theoretical failure.[49] In contrast, from the interpretivist prospective the legal community may agree on an unjustifiable results in all actual and hypothetical cases.

Further, coherentists do not allow the data to be determined by coherence, while interpretivism allows the data itself to be revised in light of the interpretation.[50] The process of revision threatens to trivialize the coherentist project, since the data around which the theory is supposed to be molded can now be molded around the theory. Therefore coherentism differs from interpretivism by presupposing a divide between the theory and the data, and by precluding complete actual theoretical failure. The views will look very similar if, as any reasonable interpretivist will insist, the notion of fit and norms of political morality highly value the text of the opinion. Thus interpretivists and coherentists may reach the exact same results through similar routes, although the approaches are fundamentally different.

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[48] There is more profound theoretical failure both theories face. For interpretivism, if political morality is inconsistent or illusory, e.g. if justice and fairness are equally important and equally opposed or moral nihilism is correct, then it will not justify any possible political practices. For coherentism, if the norms used to determine the best theory are inconsistent, then there will be no best theory (or set of best theories). I ignore this possibility in the rest of the chapter.

[49] A coherence theory that only required hypothetical, unsettled, cases to be correct could be subject to actual theoretical failure. I know of no one who holds such a view, and ignore it.

[50] See *supra* at n.43.

The relationship between coherentism and interpretivism is relevant to another way one might try to incorporate some of Dworkin's views into my theory. Namely, one could treat Dworkin's theory as a theory of judicial discretion, operating only when the case does not fall within a binding rule. Dworkin's theory then explains the reasoning judges use to decide what priority to fix between conflicting rules from past cases, whether to distinguish a case that presents a novel reason, what *ratio* to establish within an opinion, and whether a decision should be overruled. This approach hews closer to the broad sort of principles Dworkin writes about, which seem better suited to explain (rather than abbreviate) the more specific rules my theory uses.

This approach is involves a limited coherentism, not interpretivism. The content of the past cases (results and *ratios*) is fixed and the judge is looking for the best theory that explains that content. The data are thus distinct from the theory, as coherentism but not interpretivism demands. Further, the past cases are treated as settled, requiring the theorist to treat some of them as correct. This rules out complete actual theoretical failure. In fact, this approach is stricter than Hurley's because some actual (not merely hypothetical) cases must be treated as correct. The coherentism is limited in virtue of only applying when the judge can exercise discretion according to my theory. My theory is entirely compatible with this sort of coherentism.

Before concluding the discussion of Dworkin and interpretivism, I should be explicit about what my theory says about the so called "hard cases." Hard cases, on my view, can be explained as instances either of one well-entrenched rule conflicting with another, or conflicting with an important novel reason or reasons. I read *Riggs* as the former, involving a conflict between a rule from the wills statute and a rule of unjust enrichment regarding whether a murder

can inherit from his victim,[51] and *Henningsen* as the latter, involving a conflict between a rule of contract requiring privity between plaintiff and defendant and the novel reasons presented by automobiles sold exclusively through dealers but mass marketed by manufacturers. In such cases the judges must decide which rule trumps the other or whether the novel reason is sufficiently strong to distinguish the existing rule. It follows that my theory is consistent with the decisions in each case.

My reading of *Riggs* merits a brief comment since it is slightly at odds with Dworkin's. Dworkin reads it as a conflict between a statute and a moral principle. I read it as a conflict between two legal rules: the wills statute and rules from the area of law now known as "unjust enrichment," in particular the doctrine surrounding constructive trust. This is more or less the approach adopted by the New York Court of Appeals, the same court that decided Riggs, in *Ellerson* v. *Westcott*[52] and the approach argued in a series of articles by J.B. Ames in two articles from the 1890s.[53] The thought is that the will statute required the passage of legal title, and then common law doctrines of equity, which had at this point become merged with law in New York, require that he hold that money in constructive trust for the rest of the heirs. The heirs were then within their rights to compel him to give up the money. On this understanding, the statute and the doctrine of unjust enrichment do not even conflict, a conclusion I am hesitant to endorse. What I do endorse is that equitable doctrines like unjust enrichment are themselves positive law, not creatures of political morality.[54] Therefore I can treat the hard issue in *Riggs* as a matter of

[51] See *Riggs* v. *Palmer*, 22 N.E. 188 (N.Y. 1889).
[51] See *Henningsen* v. *Bloomfield Motors, Inc.*, 161 A.2d 69 (N.J. 1960).
[52] 42 N.E. 540 (N.Y. 1896).
[53] J.B. Ames, *Note: Can a Murderer Acquire Title by His Crime?*, 4 HARV. LAW REV. 394–95 (1891); J.B. Ames, *Can a Murderer Acquire Title by his Crime and Keep it?*, 45 AM. LAW REGIST. 225 (1897).
[54] Here I follow Reporter Andrew Kull in the Restatement (Third) of Restitution and Unjust Enrichment, especially §1 of that document, in opposition to some ,like Wolcher, who treats unjust enrichment as essentially connected to morality. See Louis E. Wolcher, *"Unjust" in the Restatement (Third) of Restitution & Unjust Enrichment*, 68 WASH. LEE LAW REV. 911 (2011). I have argued for an even narrower, more exclusively positivist,

conflicting established legal rules.

In sum: the previous section demonstrated the incompatibility of my theory and Dworkin's interpretivism. I showed how my theory directly addresses one of the criticisms leveled against positivist theories in "The Model of Rules." This suggested that interpretivism might be partially assimilated within my theory, or vice-versa. I examined the results of allowing interpretivism to determine the content of past cases, concluding that this make sense only if the norms of interpretation place a high priority on fit with the text of past opinions and interpretation (in Dworkin's sense) is not the sole method of rule extraction. I then highlighted the distinctions between coherentism and interpretivism, which led to a second possible assimilation: using coherentism as a theory of judicial discretion. My theory can accommodate that proposal fairly easily, as should be expected since it is not a theory of judicial discretion. Finally, I discussed how my theory can identify hard cases and how it allows for their resolution.

3. Coherentism/Theory Construction

Having introduced coherentism in the previous section, I should briefly comment on its relationship to my theory. In the computer science literature, coherentist approaches are often called "theory construction approaches," for obvious reasons.[55] Horty and Bench-Capon (2013) give an excellent and detailed discussion of the relationship between these theories and theories like mine that extract defaults prioritized based on fixed weighings of reasons.[56] I will not repeat

characterization of unjust enrichment than Kull offers. Adam Rigoni, *A Sin of Admission: Why Section 62 Should Have Been Omitted from the Restatement (Third) of Restitution & Unjust Enrichment*, 68 WASH. LEE LAW REV. 1203–26 (2011).

[55] For examples of such approaches see Bench-Capon and Sartor, *supra* note 44 ; Alison Chorley & Trevor Bench-Capon, *Developing legal knowledge based systems through theory construction*, PROC. 9TH INT. CONF. ARTIF. INTELL. LAW - ICAIL '03 85 (2003); B Roth & B Verheij, *Cases and Dialectical Arguments—an Approach to Case-Based Reasoning., in* OTM WORKSHOPS, LECTURE NOTES IN COMPUTER SCIENCE 634–51 (R Meersman, Z Tari, & A Corsaro eds., 2004).

[56] Horty and Bench-Capon, *supra* note 44 at 203–11.

their analysis here. Instead, I will expand on the particular relationship between my theory, that of Bench-Capon and Sartor,[57] and some comments on the evolution of legal doctrine offered by Levi.[58]

Bench-Capon and Sartor offer a coherentist picture that starts with each past case understood as a result and the set of reasons/factors favoring one party and the set of reasons/factors favoring the other party. Note that cases do not initially contain rules, in contrast to my own approach. Further, each factor is associated with some value, which is the purpose served by ruling for that party when that factor is present. The values essentially justify treating a factor as favoring one party or another. The reasoner then constructs a theory composed of rules, priorities among the rules, and preferences (an ordering) among values. The theories are assessed on various grounds, including the number of cases explained and the number of rules (the lower the better). Those grounds determine the best theory (or set of theories). The better of the following two theories determines the result in a new case: (1) the best theory of the past cases and the new case with a result for the plaintiff, and (2) the best theory of the past case and the new case with a result for the defendant.

Regarding this theory Bench-Capon and Horty note,

> [T]here is no notion of building on or modifying a set of rules expressing the current understanding of a law…While this is consequently well able to deal with cases which require a radical reinterpretation, it is not a good reflection of actual legal practice.[59]

They attempt to synthesize this approach with their own, which is essentially that of Horty's 2011,[60] on which my theory is based. The synthesis starts with theory construction to establish the *ratios* in past case and then applies Horty's theory. The novel features of my account

[57] Bench-Capon and Sartor, *supra* note 44.
[58] EDWARD H LEVI, AN INTRODUCTION TO LEGAL REASONING 1–104 (1949).
[59] Horty and Bench-Capon, *supra* note 44 at 205.
[60] Horty, *supra* note 38.

established in Chapter 2 are entirely consistent with this aspect of Horty's approach. Note that this is very similar to the picture discussed *supra* at §2.3, where interpretivism with a high priority on fit with past opinions is put at the ground floor. This is unsurprising since the closer interpretivism comes to starting with fixed data, the closer it moves to coherentism.

Horty and Bench-Capon endorse a theory of legal development offered by Levi[61] that posits three stages of legal evolution.[62] At first the law is instable but eventually enters a second period during which there is much consensus as to the rules associated with particular cases. In the third stage this stability is breaks down and the old cases are such to reinterpretation. They point out that the coherentist approaches like Bench-Capon and Sartor's fit well with the first and third stages, but poorly with the second stage in which the taxing process of theory construction is inefficient.

I will not take issue with this amalgamation of theories, although the strategy for rule extraction discussed *supra* at §1 is decidedly more Catholic than the coherentist approaches. Rather, I want to point out how a distinct feature of my theory represents an additional aspect of Levi's view. Horty and Bench-Capon note that other theories, such as Roth and Verheij's,[63] involve a much more detailed representation of the reasoning used to arrive at factors. This is in part because they are more interested in the structure and justification of legal argument than the process of extracting legal rules and applying them in subsequent cases.[64] My S-Rules take us further into the inner workings of converting a case into reasons favoring each party, but my motivations are closer to those of Horty and Bench-Capon. I am interested in representing a portion of legal reasoning, precedential reasoning, which involves the application of binding

[61] LEVI, *supra* note 58.
[62] Horty and Bench-Capon, *supra* note 44 at 207.
[63] Roth and Verheij, *supra* note 55.
[64] Horty and Bench-Capon, *supra* note 44 at 209.

rules from past cases. I found that there are rules of precedent operative at a level intermediate to the outcome of a case, at the level where the presence of complicated reasons is determined. Hence I undertook to represent these rules in my system via S-Rules.

My S-Rules allow my theory to model some of the more difficult aspects of Levi's theory of legal reasoning. Levi argues that the legal terms, such as "inherently dangerous articles" and "[carriers of] moral pestilence" are open and acquire meaning in a piecemeal fashion with courts including some items and excluding others.[65] As their meaning become more and more fixed, the law gains stability. We can treat these terms as complex reasons and S-Rules can represent the piecemeal determination of their meaning. However, my theory can only go so far. As Levi points out, after some period of time the terms can come to include items previously excluded and vice-versa. My theory is compatible with overruling, but the shift in meaning is frequently accomplished via re-interpretation of the past cases instead of direct overruling. Re-interpretation requires not merely the removal of the rule (or rules) in the past case (or cases), but the insertion of another rule (or rules) in its place, which may have ripple effects on cases that purported to rely on the old rule (or rules). My theory's local focus and incremental method of change will not account for this drastic global change. Thus, if Levi is correct, my theory is still kept out of the third stage of legal evolution, but it will have more of a role in the transition from the first stage to the second.

4. Posner's Pragmatism

Recently legal pragmatism has received a revival, in no small part due to the influence of Judge Richard Posner.[66] The pragmatist picture of legal reasoning that Posner offers is in some

[65] LEVI, *supra* note 58 at 8–27; 68–76.
[66] *See* RICHARD A. POSNER, HOW JUDGES THINK 1–387 (2008) [hereinafter POSNER, HOW JUDGES THINK]; Posner, *supra* note 3.

ways a strange creature. In its earlier iteration it was opposed to "positivism," now he characterizes the opposition (more accurately, in my view) as "legalism."[67] Posner's legalism is the view that judges merely apply the law as it is found in past decisions, statutes, and other authorities.

Posner characterizes a pragmatist judge thus:

> [He] always tries to do the best he can do for the present, unchecked by any felt *duty* to secure consistency in principles with what other officials have done in the past… [He] does not regard the maintenance of consistency with past decisions as an end in itself but only as a means for bringing about the best results in the present case.[68]

Yet, he also claims that the pragmatic judge would determine the best result "and only then examine… [past cases] to see whether they might block, by operation of the doctrine of stare decisis the decision that would be best."[69] It is hard to square these positions, since *stare decisis* seems to require consistency with past decisions as an end in itself and it looks as if *stare decisis* can block the best result. Posner makes similar remarks elsewhere about precedent and other constraints on judges.[70] Apparently, the best interpretation is that Posner is treating *stare decisis* as shorthand for considerations of predictability, stability, and future influence which are important considerations in determining the decision with the best result.[71] These considerations can block what would *otherwise* be the best result.

Pragmatism is not a substantive theory of law. It does not purport to establish criteria for

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[67] Compare POSNER, HOW JUDGES THINK, *supra* note 66 to Posner, *supra* note 3.
[68] Posner, *supra* note 3, at 3,5.
[69] *Id*. at 7.
[70] See POSNER, HOW JUDGES THINK, *supra* note 66, at 220 (explaining "[The successful advocate] will have to show that the position does not violate settled law…So precedent… [acts] as a constraint on [his] efforts"). See also Posner, *supra*, note 3, at 7.
[71] He acknowledges the effect defying precedents can have on a judge's long term power– the more often judges defy precedent, the less influential their own decisions become. He treats deference to precedent as a strategy for a repeated came. POSNER, HOW JUDGES THINK, *supra* note 66, at 144. Although Posner abandons exclusively economic approaches, *id* at 237, 246, it should be noted that his "best results" always seems to aim at maximizing aggregate individual welfare, though he never explicitly discusses this.

what results are best, though we are told "[t]hey are not what is best for the particular case without consideration of the implications for other cases."[72] However, Posner seems to imply that a pragmatist must accept the values generally accepted by his legal community, writing, "Pragmatism will not tell us what is best but, provided there is a fair degree of value consensus among judges… it can help judges seek the best results unhampered by philosophical results."[73] In his most recent book on pragmatism he continues, "the wider the agreement on what kind of consequences are good and what kind are bad (and how good and how bad), the greater the guidance that pragmatism will provide."[74] This is a bit puzzling, but according to the overall picture the pragmatic judges is a particularist, suspicious of overarching moral theories as well as his weaker intuitions. He proceeds in a piecemeal fashion, balancing competing interests, cautiously trying to reach the right local result.

Further complicating matters are Posner's claims that "most American judges are legalists in some cases and pragmatist in others; for remember that legalism is a pragmatic tactic,"[75] and "legal pragmatism incorporates… legalism."[76] Hence legalism, introduced as the opposition to pragmatism, is subsumed within pragmatism. Additionally, Posner often treats pragmatism as a matter of degree, e.g. "English judges can afford to be …less pragmatic than our [American appellate] judges."[77]

To make sense of this, let us start by distinguishing pragmatism writ large, legal pragmatism, and pragmatic adjudication. Posner never explicitly defines these, so what follows is my attempt at charitable interpretation. Pragmatism writ large is simply making decisions

[72] Posner, *supra* note 3, at 16, see also POSNER, HOW JUDGES THINK, *supra* note 66, at 245–49.
[73] Posner, *supra* note 3, at 18.
[74] POSNER, HOW JUDGES THINK, *supra* note 66, at 241.
[75] *Id.* at 230.
[76] *Id.* at 246.
[77] Posner, *supra* note 3, at 19.

based on their short-term and long-term consequences. Legal pragmatism is the application of pragmatism writ large to legal institutions. For Posner, all (or nearly all) judges are pragmatic writ large, and hence legal pragmatists in virtue of their position in the legal system. Legalism and pragmatic adjudication are two possible methods of adjudication. Legalism focuses on applying or extending the rules/results of past cases and legal authorities such as statutes, largely ignoring other sources of information and without much regard for the consequences of the particular decision. Pragmatic adjudication is making judicial decisions with a focus on the consequences, treating non-legal sources of information, such as social science, as equally important as legal authorities.

According to Posner, a legal pragmatist will, in some situations, endorse legalism in the same way that an act-utilitarian will, in some situations, endorse a rule-utilitarian decision procedure. There are also the same concerns about rule system collapsing, but I do not address those here. Within some legal systems, such as unicameral parliamentary systems, judges do better trying to follow rules instead of trying to work out the best result in each case.[78] In these systems legal pragmatism endorses legalism. In other political systems, such as the system in the U.S., judges will do best if they explicitly focus on the consequences of the decision. Here, legal pragmatism endorses pragmatic adjudication.[79]

However, for Posner a judiciary cannot be completely legalist, because there is too much indeterminacy in even very detailed laws–something must fill the ambiguities, vagueness, and unaddressed circumstances–and in some instances the results of legalism are intolerable– even the most ardent legalist's underlying pragmatism will burst through.[80] Hence legalism and

[78] *Id.* at 18–20. Posner thinks this follows from unicameral parliaments' alleged ability to quickly pass laws addressing recent issues.
[79] POSNER, HOW JUDGES THINK, *supra* note 66, at 9.
[80] See Posner, *supra* note 3, at 13; POSNER, *supra* note 66, at 199–200, 214–16 (discussing the absurdity doctrine in

pragmatic adjudication are a matter of degree, even within systems that clearly favor one or the other. This clarifies Posner's comment that judges can be more or less pragmatic: some may pore over the intricacies of legalist sources and only take a hard look at consequences when those resources are completely inadequate, while other judges may give the legal doctrine only a cursory look before focusing on the consequences.[81]

It also explains how judges can be legalists in some cases and pragmatic in others: in some cases the legalist materials are conclusive, in others they are woefully inadequate. Posner himself admits that (even in the U.S.) judges in the vast majority of cases behave as legalists, writing,

> [M]any, indeed most, judicial decisions really are the product of a neutral application of rules not made up for the occasion to facts fairly found. Such decisions exemplify what is commonly called "legal formalism," though the word I prefer is "legalism."[82]

The approach that emerges from all this discussion is two-tiered, although ultimately justified by legal pragmatism. The judge first applies legalist methods. Then, should they fail to produce any result or produce an unacceptable one,[83] she applies pragmatist methods.

So how does my theory fit with Posner's pragmatism? On the one hand, his brand of pragmatism supports incremental changes and particularism, which suits my theory well.[84] On the other hand, it gives precedent relatively little influence, because a judge is only constrained from disobeying precedent by the undesirable consequences of doing so. As I discussed in

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statutory interpretation).

[81] Note that the legal sources still take priority. Pragmatism is not committed to this, but Posner admits it is descriptively accurate–only the non-routine cases go beyond the legal sources. See discussion *infra* p.28.

[82] *Id.* at 370.

[83] Just what makes a result unacceptable is unclear. If only results that would have been produced by pragmatic adjudication are acceptable, then the first tier is pointless because the judge still has to go through the second process to test the result of the first. The test seems largely intuitive and calibrated only to catch egregious offenders. See Posner, *supra* note 3, at 2, 10. Posner talks of it as similar to the doctrine of absurdity in statutory interpretation. See *Id.* at 13.; POSNER, HOW JUDGES THINK, *supra* note 66, at 199–200, 214–16.

[84] HORTY, *supra* note 33 offers a formalization of particularism using the logic on which my theory is based.

Chapter 1, my theory was developed to capture the rule-theorist notion of precedential constraint, which required the judge to follow precedent even when it seemed to yield the wrong result in the present case and to do so simply because it was precedent, not because of any perceived benefits of following precedent. Even Dworkin's interpretivism gives precedent more power than pragmatism: in constructing the best interpretation of past history integrity favors adherence to precedent, regardless of the results of that adherence. Of course, that integrity favors following precedent does not ensure it should be followed, as other values like justice might more strongly favor disregarding the precedent. Thus, Posner's pragmatism could never be captured within the framework of my theory.

However, the inverse is possible: my theory still find a place *within* the pragmatist's framework, namely, as a representation of legalist reasoning. My theory can serve as a model for the reasoning performed in routine cases. When the rules fail to address the present case, pragmatism explains the judge's discretionary reasoning. The pragmatist must add one caveat: pragmatic adjudication can override the conclusions drawn by my theory in cases of emergency, when the result is egregious.[85]

I must stress that explaining routine cases is no meager feat. Legal theorists tend to be enamored with appellate adjudication, and the higher the court, the more fervent the feeling. The focus on *Lemon* in Chapter 2 shows that I am not immune. The apex of the U.S. system, the Supreme Court, is often treated (rightly or wrongly) as a *sui generis* tribunal with exceptional forms of reasoning. It is symptomatic of this myopia that Posner, in book entitled *How Judges Think*, can acknowledge that in most cases judges are legalists but devote nearly the entirety of the book to the remaining cases in which judges use pragmatic adjudication. Posner has a better

[85] See *supra* n.83.

excuse than most theorists for focusing on the non-routine cases: as a federal appellate judge he is more likely to see these cases.

Indeed, the influence of legalism goes deeper than determining results in most cases. In the same vein as the passage above, Posner writes,

> [M]ost cases are routine (and would not be litigated at all if lawyers were better at predicting juridical outcomes), rather than residing in that uncomfortable open region in which judges are at large…The routine case is dispatched with least fuss by legalist methods. It is in such a case that the virtues of such methods shine; [the judge] feel[s] no need to go beyond those methods to decide the case satisfactorily…"[86]

Posner is talking about data from Cross[87] showing a high rate of affirmation of federal district court decisions by federal courts of appeal, but note the parenthetical remark. A tremendous portion, estimates range from 95% (for automobile claims)[88] to 67% (all federal civil cases across all districts in 2005),[89] of legal claims are settled before final judgment.[90] As both parties become more certain of the same outcome at trial, settlement becomes increasingly likely to avoid the deadweight loss of trial costs.[91] The routine, legalistic, cases should be more likely to settle than the non-routine. Thus, the predicted results of legalistic reasoning govern the outcome in many settled cases.

That means that legalist reasoning, which my theory explains, covers an even larger range of legal disputes than the Cross data shows. If we think a (or the) purpose of a legal system to adjudicate disputes in a manner acceptable to society at large, then the trial and appeals are only an increasingly small part of the enterprise.[92] Although a judge is only the final decision maker in

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[86] POSNER, HOW JUDGES THINK *supra* note 66, at 46.
[87] Frank Cross, *Appellate Court Adherence to Precedent*, 2 J. EMPIR. LEG. STUD. 369–405 (2005).
[88] H. LAURENCE ROSS, SETTLED OUT OF COURT: THE SOCIAL PROCESS OF INSURANCE CLAIMS ADJUSTMENT 285 (1980).
[89] Kevin M Clermont, *Litigation Realities Redux*, 84 NOTRE DAME LAW REV. 1919, 1954–55 (2009).
[90] See discussion in Theodore Eisenberg & Charolette Lanvers, *What is the Settlement Rate and Why Should We Care?*, 6 J. EMPIR. LEG. STUD. 111–46 (2009).
[91] See John P Gould, *The Economics of Legal Conflicts*, 2 J. LEGAL STUD. 279–300 (1973).
[92] Marc Galanter, *The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts*, 1

this small percentage of disputes, predictions of how she will or would reason resonate throughout the system. Therefore, an account of legalist reasoning is very important, even to those who share Posner's goal of "transcend[ing]" it.[93,94]

5. Analytic, Normative, and Substantive Theories of Law

I turn now to theories that are more focused on the actual law, rather than the concept of law or legal reasoning, although, as Dworkin shows, theories often touch on all three. I call such theories "theories of substantive law." Examples of such theories include the corrective justice theory of tort law and the consent theory of contract law. Substantive theories can encompass both analytic and normative theories. The analytic theories attempt to interpret and explain an area of law. Normative theories of an area of law attempt to justify or reform features of that area of law.

On this distinction, the following excerpts, discussing theories of tort law and theories of criminal law, respectively, are illustrative:

> Analytical theories seek to *interpret* and *explain* tort law. More specifically, they aim (i) to identify the concepts that figure centrally in tort's substantive norms and structural features (the latter being the procedures and mechanisms by which the institution of tort law enforces its substantive norms) and (ii) to explain how tort's substantive norms and structural features are related. Key substantive norms include the rules of strict liability and fault liability. Key structural features include the fact that tort suits are brought by the victim rather than by the state…

J. EMPIR. LEG. STUD. 459 (2004). Contrast this with Posner's assertion that the kingdom of legalism "has shrunk and greyed." POSNER, HOW JUDGES THINK, *supra* note 66, at 1.

[93] POSNER, HOW JUDGES THINK, *supra* note 66, at 252.

[94] This ultimately undermines Posner's proposal for law school education. He thinks that law schools ought to focus far more on teaching students how to make pragmatic arguments based on the policies supported by various rulings. The whole account, explicitly, aims at making students better appellate litigators. He seems to ignore the fact, entailed by data he previously acknowledged, that most of the students will rarely be involved in a trial, in which most the work is fact-finding anyway, George Loewenstein & Don A. Moore, *When Ignorance Is Bliss: Information Exchange and Inefficiency in Bargaining*, 33 J. LEGAL STUD. 37–58 (2004), let alone an appeal, let alone an appeal that gets serious consideration (typically evinced by the court hearing oral arguments). Posner's proposal might be fine advice for a class on appellate litigation, but seems excessive to alter the whole curriculum to accommodate this niche.

> …Normative theories seek to *justify* or *reform* tort law.[95]

and

> Analytical theorists seek to explain the concept of criminal law, and related concepts such as—most obviously—that of crime…. They need not look for a strict, ahistorical definition….But they can hope to identify and explain the central or salient features of systems of criminal law…
>
> Normative theorists seek an account not just of what criminal law is, but of what it ought to be….[96]

The analytical theories are closer to what we might call pure descriptions of the law, but they go beyond merely stating the relevant black letter law to explaining which aspects of the law are more or less central to the specified field (torts, criminal law, etc.) and how these aspects relate to each other. The normative theories are less tied to the black-letter law, in that they may suggest significant reform or discuss the justification not for any particular aspects of the field but the field itself, for example, a justification of why we ought to have a criminal law. As both the quoted authors note, the analytical and normative theories are not mutually exclusive. A normative theory must have or presuppose an analytical aspect that determines which norms and feature make-up the area of law it seeks to justify or reform. An analytic theory will have difficulty identifying norms and features as central, and offering an interesting explanation of their relationship without recourse to normative notions such as the values furthered by the relevant field.

In this section I hope to show that my theory of legal reasoning works with most substantive theories. I cannot hope to canvass all substantive theories of law here, so instead I consider a representative example of such theories, namely, the economic analysis of law. More commonly known as "law and economics," it is currently the most influential and discussed

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[95] Jules Coleman & Gabriel Mendlow, *Theories of Tort Law*, *in* STANFORD ENCYCLOPEDIA OF PHILOSOPHY, §1.3.1 (Edward N Zalta ed., Fall 2010 ed. 2010).

[96] Antony Duff, *Theories of Criminal Law*, *in* STANFORD ENCYCLOPEDIA OF PHILOSOPHY, §1 (Edward N Zalta ed., Fall 2010 ed. 2010).

substantive theory and has been for roughly the past 40 years. I argue below that law and economics can co-exist with my theory, and I think that similar arguments can be made, *mutatis mutandis*, to show that many other substantive theories can co-exist with it.

5.1. The Case of Law and Economics

There are separable economic theories of nearly every field of law–tort, contract, criminal law, and so on[97]–such that one could be committed to an economic analysis in one field, such as contract, without being committed to an economic analysis in another field, such as criminal law. Nonetheless, theorists typically take an all or nothing approach, arguing for or against economic analysis in all field.[98] That is how I treat law and economics in what follows.

Law and economics is committed to a number of normative and analytic claims. The principal normative claim is that legal rules ought to be efficient. My theory does not conflict normative claims of this sort, since it is not a theory of what the legal rules ought to be, but rather, how they are applied (or not applied). A judge could accept this normative claim and give it force by using it to guide her decisions in instances where she is not bound by precedent.

The principal analytic claim is that (many) common law legal rules are efficient. As Kornhauser notes, this claim is ambiguous between (1) "that common law legal rules *induce* efficient behavior," and (2) "that the content of the law is identified by its efficiency."[99] Note that (1) presupposes that the common law rules are already identified, and then asks whether those rules have a particular property. This empirical investigation is not effected by my theory.

(2) raises more difficult issues. It can be construed as a claim about the concept of law,

[97] ROBERT COOTER & THOMAS ULEN, LAW & ECONOMICS 1–582 (5th ed. 2008); Richard A. Posner, *Economics, Politics, and the Reading of Statutes and the Constitution*, 49 UNIV. CHICAGO LAW REV. 263 (1982).
[98] See COOTER & ULEN, *supra* note 97; Posner, *supra* note 97.
[99] Lewis Kornhauser, *The Economic Analysis of Law*, *in* STANFORD ENCYCLOPEDIA OF PHILOSOPHY , Introduction (Edward N Zalta ed., Spring 201 ed. 2014).

meaning that the law is essentially efficient. Note that this makes the question answered by the first aspect trivial– if the common law rules are not efficient, then they are not law! I know of no theorist who holds that view, but it isn't a substantive theory on my definition anyway. As a thesis of substantive theory, (2) can be justified in a number of ways. A coherentist or an interpretivist might think that a theory centered on efficiency best explains the relevant data, and hence this theory is the law. A positivist might think that judges' intentions form rules and judges have always intended rules focused on efficiency (a form of positivism).[100] Another positivist might think that the rule of recognition (or a similar rule from a source itself satisfying the rule of recognition) as requiring efficiency. Kornhauser mentions that (2) need not depend on the truth of (1); one might extract an economic model underlying past decisions and identify law as what is efficient in this model rather than the actual world.

This helps to illuminate the potentially tenuous relationship between a substantive theory of law and a theory of legal reasoning. Consider again the plain-meaning textualist. When faced with a case, he does not initially consider which result is most efficient. Instead, he looks to see what the plain-meaning of the texts require. If he thinks that they require inquiry into efficiency, then he does so. But if he thinks they do not, he makes no inquiry. He might think that the past lawmakers were aiming for efficiency with their rules, but so long as the plain-meaning does not involve efficiency, he does not consider it. He might even think that the rules in fact induce efficiency, but do not require him to seek it. Consider a parallel to perfect markets: in perfect markets agents are seeking what's best for them, not what is most efficient. But in acting on self-

[100]This might be the case even though they do not use the language of economics in their opinions. See POSNER, HOW JUDGES THINK, *supra* note 66, at 238 (discussing Jody S Kraus, *Transparency and Determinacy in Common Law Adjudication: A Philosophical Defense of Explanatory Economic Analysis*, 93 VA. LAW REV. 287 (2007) and "contextual convergence" whereby judges employ the traditional vocabulary but gradually invest it with an economic meaning. One might be able to use S-Rules and complex reasons to do represent this, but I would not try: I suspect the *divergence* between the vocabularies is too great to overcome.).

interest they act efficiently. Of course the relationship can be stronger than that. The coherentist/interpretivist above will posit a major role for efficiency in legal reasoning, since it will be part of the process of constructing the best theory. Faced with a new case, the coherentist/interpretivist will have to consider how efficient different results are to determine if they fit with the best theory of the law.

We can now clearly see the general relationship between substantive theories of law and my theory. The normative aspects of the theory attempt to govern discretionary decision-making, that is, they govern the judge's weighing of reasons in cases where she is not bound by precedent. They attempt to determine which rules have higher priority and how the judge ought to decide a case when no rules apply. The analytic aspects involve the extraction of rules and priorities from cases or the formation of rules, since it is these rules and priorities that are the content and structure of the field of law. They attempt to determine which rules and weighings a judge extracts from past cases. For the law and economics theorist, the reasons involved in past cases (or at least involved in the *ratios*) will be those related to efficiency. The force of precedential constraint will depend on the concept of law the theorist adopts. A positivist concept of law, the best fit with my theory, will yield genuine precedential constraint because the judge need not agree that the efficient rules (or rules recognized as efficient, depending on the details of the economic analysis) yield the best result but she still must apply them. An interpretivist concept of law will yield a weaker form of constraint, depending on how highly on values integrity in interpretation.[101] There may be substantive theories that resist this approach,

[101]Pragmatism does not really offer a distinct concept of law. It presupposes one and then claims that this law is often (or always) indeterminate in its application. The influence of economic analysis for a pragmatic judge is not necessarily in the identification of the law, but in the assessment of which decision in the present case would yield the best outcome. A pragmatic judge may use the tools of economics to make this decision, though he need not.

but I think it will succeed in most instances.

6. Areas for Further Research: The Specter of Statutes and Other Lingering Problems

Having established the relationship between my theory and other prominent positions in jurisprudence, I conclude by addressing some remaining difficulties facing my theory. I have tried to address most of my theory's shortcomings in this dissertation, but I have left some issues unresolved. In this section I highlight the most important of these and offer some suggestions that might eventually lead to their resolution.

6.1. The Specter of Statutes

A careful reader may have noticed that my interpretation of *Riggs* glossed over an important fact, namely, that *Riggs* involved a conflict between a common law rule (on my treatment) and a *statute*, and I have said nothing about how statutes are treated within my theory. One possible response is that *Riggs* is simply outside the scope of a theory of common law judicial reasoning. Yet this makes the scope unacceptably narrow because so many cases involve statutes in some way.

Initially, statutes may not seem problematic. After all, they lend themselves even more easily than cases to formulation in terms of a rule or set of rules. There is little difficulty in extracting the equivalent of a *ratio*, or a number of *ratios* as would certainly be required by modern statutes like *Employee Retirement Income Security Act* (*ERISA*). The difficulty is in the interaction between statutes and common law rules.

Statutes are generally taken to trump common law rules. If we stipulate that this is the only interaction possible between the two, then a multi-tier approached would be appropriate. The thought is that common law rules are at the bottom, statutes are one level up, and finally the

Constitution is at the top. The rules are all defaults,[102] but every rule at a higher level trumps every rule at lower levels. This means that statutes are not responsive to the reasons to which common law rules are responsive, because each statute trumps all rules involving those reasons. While this approach fits well with the view of plain-meaning or strict textualists, it fails to capture either my or Dworkin's reading of *Riggs*, both of which involve a statute being trumped by something (a common law rule for me, a legal principle for Dworkin) that is derived from neither a statute nor the Constitution.

A better response is to put statutory rules on a par with common law rules, so they can interact in both directions. A simple example is helpful. Consider a statute from which we extract a rule that "if the defendant had a motor vehicle in the park, then rule for the plaintiff." Here the set of reasons in the antecedent is just "that the defendant has a motor vehicle in the park." Call that set *R*. We need to fix a set of reasons outweighed by *R*, call this set *O*. I think that the majority of statutory interpretation is devoted to fixing *O*, although it is sometimes misleadingly cast as a semantic matter. Although context matters a great deal to semantics, treating statutory interpretation as solely semantic goes too far, as the following example shows.

Suppose our sample statute is in effect and a fireman drives a fire truck drive into the park to put out a fire. It seem obvious that no judge would rule against this fireman. It seems equally obvious to me that a fire truck is within the semantic extension of the term "motor vehicle" in the context of our statute, and that semantics will not explain deciding for the fireman. Still, the point can be made stronger, for suppose another fire truck is driven into the park, this time by a joyriding off-duty fireman. It seems obvious that this fireman is going to lose in court. Are we then to understand that the semantic of the term "motor vehicle" is

[102] Strict textualists might claim they treat the rules as strict, but I have shown that is a poor model of their reasoning in Chapter 2.

sensitive to the purpose for which the vehicle is driven? That is, that fire-trucks being driven to put out fires are not motor vehicles but fire-trucks being joyridden are? I think it is much more accurate to say that fire-trucks are motor vehicles, but the statute is trumped. Likewise, Dworkin and I agree that the statute of wills in *Riggs* really did say that the murderer inherits but that statute was trumped by other concerns.

The trouble with this approach is that statutes do not typically come with extensive discussions of facts like legal cases. I do not have a solution to this difficulty, but I do have a proposal for further research: I think that we can understand many aspects of the method of loose interpretation as attempts resolve it. That is, searches for the intent or purpose or goal of a statute can be understood as a search for *O*, the set of reasons the legislature (or an idealized version thereof) considered insufficient to trump the rule. Of course much more work needs to be done to flesh this out.

I will point out two potential problems, although there are many others. The first is how to explain the repeated assertions that statutes are superior to common law[103] when statutes can be trumped. I think this problem can be resolved by looking at the relationship between superior and inferior courts. In my theory, the inferior court can still distinguish rules made the by the superior court when there is a novel reason present. They are still inferior in that they can neither alter the weighings established by the superior court, meaning they will sometimes be bound to

[103]See, *e.g.*, *Gooch v. Oregon Short Line R. Co.*, 258 US 22, 24 (1922) ("For although courts sometimes have been slow to extend the effect of statutes modifying the common law beyond the direct operation of the words, it is obvious that a statute may indicate a change in the policy of the law."); *Johnson v. Southern Pacific Co.*, 196 US 1, 17 (1904) (stating, "The dogma as to the strict construction of statutes in derogation of the common law only amounts to the recognition of a presumption against an intention to change existing law."); *Jamison v. Encarnacion*, 281 US 635, 640 (1930) ("The rule that statutes in derogation of the common law are to be strictly construed does not require such an adherence to the letter as would defeat an obvious legislative purpose or lessen the scope plainly intended to be given to the measure.). Note that on the view I suggest the strict construction doctrine, or "dogma," is misleadingly named. Its real import is not in the semantics of the statute, but in the identifying *O* narrowly to avoid conflict with common law rules.

follow the rules, nor can they remove the superior court's rules. That is to say they can only distinguish, but never overrule, the superior court. The superiority of the legislature can be understood in the same way. The courts can distinguish statutes, but they cannot overrule them. The weighing established by the legislature in the statute cannot be altered by the courts and hence courts will be bound to apply the statute when no set of novel reasons is present.

If we treat *O* as complete, in the sense that no reasons outside of *O* can be added to it, then the advantages of the default approach are lost. *O* is simply the starting point. In the course of applying the statute courts will weigh new reasons, and those reasons will be added to *O* or added to the set of reasons sufficient to defeat the rule (*O*'s complement). On this view it is within the discretion of the judges to determine whether the rule of a statute is defeated by a novel set of reasons in contrast to theories holding that a statute only applies in a circumstance if the legislature would have favored that application. The view is thus in agreement with that of the legal pragmatists.[104]

The second problem is whether such discretionary decisions must be guided by the policy or purpose of the statute. This parallels the problem of whether past cases can establish general principles that govern discretionary decisions. Both involve deriving a goal or purpose from an established source of law and then asking what role this plays in judicial reasoning. It is an important issue, because these goals could influence a number of facets of judicial reasoning, including which facts count as reasons for each party, which rules have higher or lower priority, and what rule a judge should create when she has discretion to make a new rule. The first facet deals with the process discussed *infra* at §6.3. The last two are matters of discretionary decision

[104] See POSNER, HOW JUDGES THINK, *supra* note 66, at 191-96.

making. All three are unresolved in this dissertation, thought he latter has received extensive discussion elsewhere.[105]

6.2. The Method of Rule Extraction

I have tried to avoid making a commitment to any particular method of rule extraction, though I have noted when a particular theory is incompatible with my theory. As discussed in the previous section, the same theory should explain the extraction of rules from cases and statutes. I made salient some of the peculiar difficulties that beset statutory interpretation, but interpretation of cases is itself arduous. The natural next step is to endorse or select a particular theory that meets the needs of my theory.

6.3. The Method of Identifying Reasons

My theory is dependent on the notion of reasons, yet I am careful to avoid, when possible, making claims about the underlying theory of reasons upon which my theory rests. The claims I do make are requirements, not explanations. For example, the theory must allow for broad agreement amongst judges regarding what counts as a legal reason, but a great deal of further work is needed to show how this might be accomplished. Given the parallels to analogical reasoning discussed in Chapter 1, research in that field may prove illuminating.

6.4. Extensions: Aggregating Priorities and Chaining S-Rules

On my theory both new S-Rules and weighings of reasons can only come from a case. They cannot be derived from pre-existing S-Rules or weighings. Consider first the S-Rules. Suppose we ignore that distinction between C-Reasons and S-reasons and then have the following S-Rules:

[105] *See supra* at Ch.3, §2, §3, §4.

S-Rule 1: $\{R^d_1\} \rightarrow \{R^d_2\}$
S-Rule 2: $\{R^d_2\} \rightarrow \{R^d_3\}$

A judge with knowledge that R^d_1 obtains could reason using these rules to the conclusion that R^d_3. Thus, it is tempting to allow a reasoner to derive from these two rules a new rule,

S-Rule 3: $\{R^d_1\} \rightarrow \{R^d_3\}$

Yet this can be problematic, e.g. if our reasoner knows that R^d_1 obtains and that R^d_2 does not obtain (the case is an exception to S-Rule 1), then she can still conclude that R^d_3 obtains using S-Rule 3, though the justification for S-Rule 3 fails in this case.

The distinction between C-Reasons and S-reasons blocks the scenario which gives rise the temptation to derive S-Rules, because the conclusion of an S-Rule is a set of C-Reasons, which cannot be the antecedent of another S-Rule. Yet this may be too strong, as it prevents the chaining of S-Rules as well as the derivation of new S-Rules. One might want S-Rules that chain together with other S-Rules, as S-Rule 1 and S-Rule 2 do, but prevent derivation of new S-Rules, like the problematic S-Rule 3. This can be accomplished by relaxing the requirement that S-Rules conclude with a set of C-Reasons. The consequences of relaxing this requirement are worthy of further exploration.

Turning to the weighing of reasons, the issue is whether the outweighs relation (>) should be transitive. Suppose we have the following weighings from past cases:

Weighing 1: $\{R^p_1\} > \{R^d_1\}$
Weighing 2: $\{R^d_1\} > \{R^p_2\}$
Weighing 3: $\{R^p_2\} > \{R^d_2\}$

The question is whether the above weighing entails Weighing 4:

Weighing 4: $\{R^p_1\} > \{R^d_2\}$

The answer is "yes" if > is transitive, and "no" otherwise. The system I have presented is built on Horty's, which treats > as intransitive.

The considerations in favor of treating > as transitive are that it seems intuitive, that it reduces the localism of precedent, and that it increases the influence of past cases. Treating the relation as transitive seems intuitive, since similar, familiar relations such as relation "is greater than" on the natural numbers are transitive. Further, it binds current judges to some weighings that have not been considered in a past case. As it stands my theory is very focused on the results of individual cases because only a weighing from an individual past case can bind a current judge. A judge then cannot, in a sense, be bound by a series or aggregate of cases. She may be bound to the rule used in a number of cases, but the weighing that makes this rule binding has to come from an individual case. Some may have a more holistic conception of precedent, on which a group of cases can create a precedent not found in any one of the cases in the group. Making > transitive accommodates this more holistic conception of precedent.

Finally, and perhaps obviously, making the relation transitive increases the precedential force of past cases because it potentially increases the number of binding weighings generated by past cases. In the simple example above we get one additional binding weighing, but as the number of cases and number of weighings increase so does the potential[106] for further derived weighings. This would be appealing to those who think my conception leaves current judges too free to exercise discretion.

However, there appear to be counter-examples where the weight of reasons depends on context.[107] For example suppose our first case is a tort suit where the plaintiff was injured by the explosion of a barrel of Chemical X that fell off the back of the defendant's truck. Chemical X is a known to explode if sufficiently shaken, jarred, or sparked. The company uses A-grade barrels,

[106] It's only a potential increase because the weighings have to align in the right way for transitivity to yield a new weighing.

[107] The example I offer is novel, but the issue is also raised by Horty. See Horty, *supra* note 38, at 8, 15–17.

that are very resistant to puncture due to thick single layer-walls, but insufficient to contain an explosion. Let R^p_1 be that the defendant transported Chemical X. Let R^d_1 be that the defendant used A-grade barrels, since their strength still reduces the force of the explosion. The case rules for the plaintiff. We get the following weighing:

Weighing 1: Transported Chemical X > Used A-grade barrels

This corresponds to the previously discussed weighing of the same name.

Suppose the second case involves a plaintiff injured by poisonous gas that leaked out of a barrel of Chemical Y, a highly poisonous chemical, which fell off the back of the defendant's truck. The defendant used A-grade barrels. Let R^p_2 be that the defendant transported Chemical Y. Let R^d_1 be that the defendant used A-grade barrels, since their strength prevents puncturing in all but exceptional cases. The court holds for the defendant, and we get the following weighing:

Weighing 2: Used A-grade barrels > Transported Chemical Y

This corresponds to the previously discussed weighing of the same name.

Finally, suppose our third case involved again a plaintiff injured by poisonous gas that leaked out of a barrel of Chemical Y that fell off the back of the defendant's truck. Here the defendant used B-grade barrels. The walls of these barrels are made of three layers, an exterior layer, a foam shock absorbing layer, and an interior layer. They are less resistant to puncture than the A-grade barrels, but reduce movement of their contents on impact to a greater extent than A-barrels. Let R^p_2 be that the defendant transported Chemical Y. Let R^d_2 be that the defendant used B-grade barrels. The court holds for the plaintiff. We get the following weighing:

Weighing 3: Transported Chemical Y > Used B-grade barrels

This corresponds to the previously discussed weighing of the same name.

If > is transitive, then we can derive the following weighing:

Weighing 4: Transported Chemical X > Used B-grade barrels

Yet, it seems that a court might well reject this weighing, because the B-grade barrels offer sufficient protection from explosion due to shaking. This would yield the following weighing, which is inconsistent with Weighing 4:

Weighing 5: Used B-grade barrels > Transported Chemical X

To put it another way, R^d_2 is a stronger reason in the context of a Chemical X explosion (R^p_1) than a Chemical Y leak (R^p_2). Now there may be room for objections here, for example, one might think the reasons in each are not "used A-grade barrels" and used "used B-grade barrels" but rather, that in the context of a Chemical X explosion the resistance of the barrel to shaking (but not to puncturing) is the pro-defendant reason while in the context of the Chemical Y leak the resistance of the barrel to puncturing (but not shaking) is the pro-defendant reason. If so, then the cases will fail to involve the same reasons and we cannot derive Weighing 4.

The issues here are subtle and their resolution will depend, I think, upon the issues dealing with how reasons are extracted from cases. I suspect that any time transitivity yields a seemingly incorrect result, we can identify some feature of the reason (R^d_2 in our example) that is not relevant in one of the weighings but is made relevant in the problematic weighing. Thus there will be solutions to potential counter-examples by finessing the characterization of the reasons in past cases. However, these strategies have an air of what Horty aptly calls "wishful formalization," which is explained as follows:

> "[W]ishful formalization"—carefully tailoring the inputs to a logical system so that the system then yields the desired outputs. Ideally, a logic should take as its inputs formulas conforming as closely as possible to the natural language premises provided by a situation [past opinions, in the legal context], and then the logic itself should tell us what conclusions follow from those premises. Any time we are forced to adopt a less straightforward representation of the input premises in order to avoid inappropriate conclusions …we are backing away from that ideal. By tailoring the inputs in order to assure certain outputs, we are doing some work for the logic that, in the ideal case, the logic should be doing for us.[108]

I am not sure if there is a way to avoid the counter-examples without engaging in wishful formalization, but issue certainly merits further thought and discussion than I can give it here.

7. Conclusion

I have examined the relationship between my theory of judicial reasoning and prominent theories of the nature of law. The examination revealed that my theory fits most comfortably with the positivist conception of law, because of its use of binding (contra the pragmatist) rules of precedent that are extracted from individual cases (contra the coherentists and interpretivists). Still, I showed that my theory can co-exist with aspects of interpretivist, coherentist, and pragmatist theories, largely by treating those theories as theories of judicial discretion, which is available only in certain cases.

Further, I demonstrated that it is amenable to different substantive theories of law, depending on how one specifies the process for extracting reasons and rules from past cases. This is as it should be for an accurate theory of judicial reasoning, because the actual judges, who's reasoning I am trying to approximate, disagree with some frequency with regard to substantive theories. It would be surprising if the right theory of their own reasoning process resolved these disputes. Put another way, it would be a mark against my theory if it could not explain the reasoning processes of judges who have adopted popular substantive theories of law,

[108] HORTY, *supra* note 33, at 185.

such as the economic analysis of law. In sum, I established my theory as amicable to many insights from diverse jurisprudential perspectives regarding both the concept of law and the substantive content of law, while acknowledging that the core notions of extracting a rule from an individual case and genuine precedential constraint are essentially positivist.

Finally, I discussed how my theory might be improved to handle the difficulties raised by statutes, the rule-extraction process, the inferences a judge makes from evidence to the reasons that obtain in a case, and the aggregation and combination of rules. I offered mere speculation on these fronts, hoping that further research may resolve these issues. I harbor an additional hope for this work as a whole, namely, that it provides a cogent example of the precision and rigor formal analysis can bring to traditional topics in legal philosophy.

Bibliography

Table of Cases Cited

Bd. of Educ. v. Allen, 392 U.S. 236 (1968)

Bowen v. Kendrick, 487 U.S. 589 (1988)

Brandenburg v. Ohio, 355 U.S. 444 (1969)

Chaplinsky v. New Hampshire, 315 U.S. 568 (1942)

Ellerson v. Westcott, 42 N.E. 540 (N.Y. 1896)

Gooch v. Or. Short Line R. Co., 258 US 22 (1922)

Henningsen v. Bloomfield Motors, Inc., 161 A.2d 69 (N.J. 1960)

Hustler v. Falwell, 485 U.S. 46 (1988)

Jamison v. Encarnacion, 281 US 635 (1930)

Johnson v. S. Pac. Co., 196 US 1 (1904)

Gertz v. Robert Welch, Inc., 418 U.S. 323 (1974)

Lemon v. Kurtzman, 403 U.S. 602 (1971)

Miller v. California, 413 U.S. 15 (1973)

Newport Yacht Basin Ass'n of Condo. Owners v. Supreme Nw., Inc., 285 P.3d 70 (Wash. Ct. App. 2012)

New York v. Ferber, 458 U.S. 747 (1982)

Police Dep't v. Mosley, 408 U.S. 92 (1972)

Riggs v. Palmer, 22 N.E. 188 (N.Y. 1889)

Sch. Dist.of Abington Twp., Pa. v. Schempp, 374 U.S. 203 (1963)

Stencel Aero Eng'g Corp. v. U.S., 431 U.S. 666 (1977)

Walz v. Tax Comm'n of N.Y., 397 U.S. 664 (1970)

Table of Books, Articles, and Online Documents Cited

Admin. Office of U.S. Courts. (2012). Precedents. Retrieved November 28, 2012, from http://www.uscourts.gov/EducationalResources/ConstitutionResources/SupremeCourtDialogs/JudicialInterpretationDiscussionTopics/Precedents.aspx

Alchourron, C. E. (1996). On Law and Logic. *Ratio Juris*, *9*(4), 331–48.

Alexander, L. (1989). Constrained by precedent. *S. Cal. L. Rev.*, (63), 1–41.

Alexander, L. (2012). Precedential Constraint, Its Scope and Strength: A Brief Survey of the Possibilities and Their Merits. In T. Bustamante & C. Benal Pulido (Eds.), *On the Philosophy of Precedent*. Franz Steiner Verlag.

Alexander, L., & Prakash, S. (2004). Is That English You're Speaking? Some Arguments for the Primacy of Intent in Interpretation. *San Diego Law Review*, *41*, 967.

Alexander, L., & Sherwin, E. (2008). *Demystifying Legal Reasoning*. New York: Cambridge University Press.

Ames, J. B. (1891). Note: Can a Murderer Acquire Title by His Crime? *Harvard Law Review*, *4*, 394–95.

Ames, J. B. (1897). Can a Murderer Acquire Title by his Crime and Keep it? *American Law Register*, *45*, 225.

Antonelli, G. (2012). Non-monotonic Logic. In E. N. Zalta (Ed.), *The Stanford Encyclopedia Of Philosophy* (Winter 2012). Retrieved from http://plato.stanford.edu/archives/win2012/entries/logic-nonmonotonic/

Arkonovich, S. (2001). Defending Desire: Scanlon's Anti-Humeanism. *Philosophy and Phenomenological Research, 63(3)*, 499–519.

Ashley, K. D. (1991). Reasoning with Cases and Hypotheticals in Hypo. *International Journal of Man-Machine Studies*, *34*, 753–796.

Austin, J. L. (1962). *How to Do Things with Words*. Cambridge, MA: Harvard University Press.

Beall, J. C., & Glanzberg, M. (2013). Liar Paradox. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2013). Retrieved from http://plato.stanford.edu/archives/fall2013/entries/liar-paradox

Bench-Capon, T., & Sartor, G. (2003). A Model of Legal Reasoning with Cases Incorporating Theories and Values. *Artificial Intelligence*, *150*(1-2), 97–143.

Bex, F., Bench-Capon, T. J. M., & Verheij, B. (2011). What Makes a Story Plausible? The Need for Precedents. *Legal Knowledge and Information Systems*, (JURIX 2011: The Twenty-Fourth Annual Conference), 23–32.

Brewer, S. (1996). Exemplary reasoning: Semantics, pragmatics, and the rational force of legal argument by analogy. *Harvard Law Review*, *109*(5), 923–1028.

Brewka, G. (1991). *Nonmonotonic Reasoning: Logical Foundations of Commonsense.* Cambridge, England: Cambridge University Press.

Brüninghaus, S., & Ashley, K. D. (1997). Finding Factors: Learning to Classify Case Opinions Under Abstract Fact Categories. In *Proceedings of the 6th International Conference on Artificial Intelligence and Law* (pp. 123–131). New York, NY, USA: ACM.

Cartwright, N. (1983). *How the Laws of Physics Lie*. Oxford: Oxford University Press.

Choper, J. H. (1987). The Establishment Clause and Aid to Parochial Schools-An Update. *California Law Review*, *75*, 5–15.

Chorley, A., & Bench-Capon, T. (2003). Developing legal knowledge based systems through theory construction. *Proceedings of the 9th International Conference on Artificial Intelligence and Law - ICAIL '03*, 85.

Clermont, K. M. (2009). Litigation Realities Redux. *Notre Dame Law Review*, *84*, 1919.

Coleman, J. L. (1982). Negative and Positive Positivism. *Journal of Legal Studies*, *11*, 139.

Coleman, J., & Mendlow, G. (2010). Theories of Tort Law. In E. N. Zalta (Ed.), *The Stanford Encyclopedia Of Philosophy* (Fall 2010.). Retrieved from http://plato.stanford.edu/archives/fall2010/entries/tort-theories/

Cooter, R., & Ulen, T. (2008). *Law & Economics* (5th ed., pp. 1–582). Boston: Pearson.

Cox, A. (1947). Judge Learned Hand and the Interpretation of Statutes. *Harvard Law Review*, *60*, 370.

Cox, K. M. (1984). The Lemon Test Soured: The Supreme Court's New Establishment Clause Analysis. *Vanderbilt Law Review*, *37*, 1176–1205.

Cross, F. (2005). Appellate Court Adherence to Precedent. *Journal of Empirical Legal Studies*, *2*(2), 369–405.

Cullity, G., & Holton, R. (2002). Particularism and Moral Theory. *Proceedings of the Aristotelian Society, Supplementary Volume*, *76*(2002), 169–209.

Davis, M. (2006). The Incompleteness Theorem. *Notices of the American Mathematical Society*, *53*(4), 414–18.

Dennett, D. C. (1990). The Interpretation of Texts, People and Other Artifacts. *Philosophy and Phenomenological Research*, *50*, 177–94.

Duff, A. (2010). Theories of Criminal Law. In E. N. Zalta (Ed.), *The Stanford Encyclopedia Of Philosophy* (Summer 2013). Retrieved from http://plato.stanford.edu/entries/criminal-law/

Dworkin, R. (1978). The Model of Rules I. In *Taking Rights Seriously*. London: Duckworth.

Dworkin, R. (1981). Law as Interpretation. *Texas Law Review*, *60*, 527.

Dworkin, R. (1986a). Is There Really No Right Answer in Hard Cases? In *A Matter of Principle*. Oxford: Oxford University Press: Clarendon Law.

Dworkin, R. (1986b). *Law's Empire*. Cambridge Mass.: Harvard University Press.

Dworkin, R. (2008). *Justice in Robes*. Cambridge, MA: Belknap Harvard.

Eisenberg, T., & Lanvers, C. (2009). What is the Settlement Rate and Why Should We Care? *Journal of Empirical Legal Studies*, *6*(1), 111–46.

Ellsworth, P. (2005). Legal Reasoning. In K. J. Holyoak & R. G. Morrison Jr. (Eds.), *The Cambridge Handbook of Thinking and Reasoning* (pp. 685–704). New York: Cambridge University Press.

Falkenhainer, B., Forbus, K. D., & Gentner, D. (1989). The structure-mapping engine: Algorithm and examples. *Artificial Intelligence*, *41*(1), 1–63.

Farber, D. A. (1992). The Inevitability of Practical Reason: Statutes, Formalism, and the Rule of Law. *Vanderbilt Law Review*, *45*, 533.

Fine, C. (2006). Is the emotional dog wagging its rational tail, or chasing it? *Philosophical Explorations*, *9*(1), 83–98.

Galanter, M. (2004). The Vanishing Trial: An Examination of Trials and Related Matters in Federal and State Courts. *Journal of Empirical Legal Studies*, *1*, 459.

Garner, B. A. (Ed.). (2004). *Black's Law Dictionary* (8th ed., pp. 1–1810). St. Paul, MN: West.

George Loewenstein, & Don A. Moore. (2004). When Ignorance Is Bliss: Information Exchange and Inefficiency in Bargaining. *The Journal of Legal Studies*, *33*(1), 37–58.

Giannella, D. A. (1971). Lemon and Tilton: The Bitter and the Sweet of Church-State Entanglement. *The Supreme Court Review*, *1971*, 147–200.

Gibbard, A. F. (2013). *Meaning and Normativity*. Oxford: Oxford University Press.

Gödel, K. (1931). Über Formal Unentscheidbare Sätze der Principia Mathematica und Verwandter Systeme I. *Monatsheft Für Math. Und Physik*, (38), 173–198.

Goodman, N. (1983). *Fact, Fiction, and Forecast* (4th ed.). Cambridge, MA: Harvard University Press.

Gould, J. P. (1973). The Economics of Legal Conflicts. *The Journal of Legal Studies*, *2*(2), 279–300.

Green, L. (1996). The Concept of Law Revisited. *Michigan Law Review*, *94*, 1687.

Green, L. (2009). Legal Positivism. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2009). Retrieved from http://plato.stanford.edu/cgi-bin/encyclopedia/archinfo.cgi?entry=legal-positivism

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychological Review*, *102*(1), 4.

Grice, H. P. (1975). Logic and Conversation. In D. Davidson & G. Harman (Eds.), *The Logic of Grammar* (pp. 64–75). Encino, CA: Dickenson.

Gupta, A. (1988). Remarks on Definitions and the Concept of Truth. *Proceedings of the Aristotelian Society*, (89), 227–46.

Gupta, A. (2002). Partially Defined Predicates and Semantic Pathology. *Philosophy and Phenomenological Research, 65(2),* 402–409.

Haidt, J. (2001). The Emotional Dog and Its Rational Tail: A Social Intuitionist Approach to Moral Judgment. *Psychological Review*, *108*(4), 814–834.

Hart, H. L. A. (1958). Positivism and the Separation of Law and Morals. *Harvard Law Review*, *71*(4), 593–629.

Hart, H. L. A. (2012). *The Concept of Law*. (L. Green, J. Raz, & P. A. Bulloch, Eds.) (3rd ed.). Oxford: Oxford University Press: Clarendon Law.

Hart, H. L. A. (2013). Discretion. *Harvard Law Review*, *127*, 652–665.

Holmes, O. W. (1899). The Theory of Legal Interpretation. *Harvard Law Review, 12*, 417.

Holton, R. (1999). Intention and Weakness of Will. *Journal of Philosophy*, (96), 241–62.

Holton, R. (2011). Modeling Legal Rules. In A. Marmor & S. Soames (Eds.), *Philosophical Foundations of Language in the Law* (pp. 165–183). Oxford University Press.

Holyoak, K. J. (2005). Analogy. In K. J. Holyoak & R. G. Morrison (Eds.), *The Cambridge Handbook of Thinking and Reasoning* (pp. 117–142). Cambridge, UK: Cambridge University Press.

Holyoak, K. J., & Lee, H. S. (2007). Causal Models Guide Analogical Inference. In D. S. McNamara & G. Trafton (Eds.), *Proceedings of the Twenty-ninth Annual Conference of the Cognitive Science Society* (pp. 1205–1210). Austin, TX: Cognitive Science Society.

Horty, J. F. (2001). Nonmonotonic Logic. In L. Goble (Ed.), *The Blackwell Guide to Philosophical Logic* (pp. 340–49). Oxford: Blackwell.

Horty, J. F. (2004). The Result Model of Precedent. *Legal Theory*, (10), 19.

Horty, J. F. (2011). Rules and Reasons in the Theory of Precedent. *Legal Theory*, *17*(01), 1–33.

Horty, J. F. (2012). *Reasons as Defaults*. Oxford University Press.

Horty, J. F., & Bench-Capon, T. J. M. (2012). A Factor-Based Definition of Precedential Constraint. *Artificial Intelligence and Law*, *20*(2), 181–214.

Hurley, S. L. (2006). Coherence, Hypothetical Cases, and Precedent. In S. Hershovitz (Ed.), *Exploring Law's Empire: The Jurisprudence of Ronald Dworkin* (pp. 69–103). Oxford: Oxford University Press.

Johnson, S. (1747). *The Plan of a Dictionary of the English Language; Addressed to the Right Honourable Philip Dormer, Earl of Chesterfield; One of His Majesty's Principal Secretaries of State*. (pp. 1–34). London: Printed for J. and P. Knapton, T. Longman and T. Shewell, C. Hitch, A. Millar, and R. Dodsley.

Kamp, H., & Reyle, U. (1993). *From Discourse to Logic: Introduction to Model Theoretic Semantics of Natural Language, Formal Logic and Discourse Representation Theory*. Springer.

Karttunen, L. (1973). Presuppositions of Compound Sentences. *Linguistic Inquiry*, (4), 169–193.

Kornhauser, L. (2014). The Economic Analysis of Law. In E. N. Zalta (Ed.), *The Stanford Encyclopedia Of Philosophy* (Spring 2014). Retrieved from http://plato.stanford.edu/archives/spr2014/entries/legal-econanalysis/

Kraus, J. S. (2007). Transparency and Determinacy in Common Law Adjudication: A Philosophical Defense of Explanatory Economic Analysis. *Virginia Law Review*, *93*, 287.

Kripke, S. (1975). Outline of a Theory of Truth. *Journal of Philosophy*, *72*, 690–715.

Kripke, S. (1982). *Wittgenstein on Rules and Private Language: An Elementary Exposition*. Cambridge, MA: Harvard University Press.

Kritzer, H. M., & Richards, M. J. (2003). Jurisprudential Regimes and Supreme Court Decisionmaking: The Lemon Regime and Establishment Clause Cases. *Law & Society Review*, *37*(4), 827–840.

Kull, A. (2011). *Restatement (Third) of Restitution and Unjust Enrichment*. American Law Institute.

Lamond, G. (2005). Do Precedents Create Rules? *Legal Theory*, *11*(01), 1–26.

Lamond, G. (2008). *Precedent and Analogy in Legal Reasoning*. (E. N. Zalta, Ed.)*The Stanford Encyclopedia of Philosophy* (Fall 2008). Retrieved from http://plato.stanford.edu/archives/fall2008/entries/legal-reas-prec/

Landes, W. M., & Posner, R. A. (1976). Legal Precedent: A Theoretical and Empirical Analysis. *Journal of Law and Economics*, *19*, 249.

Leiter, B. (2006). Book Review [Review of the books Justice in Robes and Exploring Law's Empire: The Jurisprudence of Ronald Dworkin]. *Journal of Legal Education*, *56*, 675–81.

Levi, E. H. (1949). *An Introduction to Legal Reasoning* (pp. 1–104). Chicago: University of Chicago Press.

Lewis, D. K. (1973). *Counterfactuals*. Cambridge, MA: Harvard University Press.

Lewis, D. K. (1980). Index, Context, and Content. In S. Kanger & S. Öhman (Eds.), *Philosophy and Grammar*. Dordrecht: Reidel.

Lindahl, L., & Odelstad, J. (2006). Intermediate Concepts in Normative Systems. In *Deontic Logic and Artificial Normative Systems, 8th International Workshop on Deontic Logic in Computer Science* (pp. 187–200).

Lucas, J. D. (1983). The Direct and Collateral Estoppel Effects of Alternative Holdings. *The University of Chicago Law Review*, *50*(2), 701–30.

McBeth, M. K., & Shaffer, D. M. (2002). Baseball outfielders maintain a linear optical trajectory when tracking uncatchable fly balls. *Journal of Experimental Psychology: Human Perception and Performance*, *28*(2), 335–348.

McCarthy, J. (1980). Circumscription — A Form of Non-Monotonic Reasoning. *Artificial Inteligence*, *13*, 27–39.

McGinnis, J. O., & Rappaport, & M. B. (2009). Reconciling Originalism and Precedent. *Northwestern University Law Review*, *103*(2), 803.

National Center for State Courts. (2012). Helping Courts Address Implicit Bias. Retrieved November 28, 2012, from http://www.ncsc.org/~/media/Files/PDF/Topics/Gender and Racial Fairness/Implicit Bias FAQs rev.ashx

Perry, S. (1997). Two Models of Legal Principles. *Iowa Law Review*, *82*, 787.

Posner, R. A. (1982). Economics, Politics, and the Reading of Statutes and the Constitution. *University of Chicago Law Review*, *49*, 263.

Posner, R. A. (1996). Pragmatic Adjudication. *Cardozo Law Review*, *18*, 1.

Posner, R. A. (2008). *How Judges Think* (pp. 1–387). Cambridge, MA: Harvard University Press.

Prakken, H., & Sartor, G. (1996). A Dialectical Model of Assessing Conflicting Arguments in Legal Reasoning. *Artificial Intelligence and Law*, *4*, 331–68.

Quartz, S. R. (2009). Reason, Emotion, and Decision-Making: Risk and Reward Computation with Feeling. *Trends in Cognitive Sciences*, *13*(5), 209–215.

Raz, J. (1979). *The Authority of Law*. Oxford: Oxford University Press.

Restatement (Second) of Torts. (1979).

Rigoni, A. (2011). A Sin of Admission: Why Section 62 Should Have Been Omitted from the Restatement (Third) of Restitution & Unjust Enrichment. *Washington and Lee Law Review*, *68*, 1203–26.

Roberts, C. (1996). Information structure in discourse: Towards an integrated formal theory of pragmatics. *Ohio State University Working Papers in Linguistics*, *49*, 91–136.

Roberts, C. (2011). *Solving for Interpretation*. Oslo.

Rooth, D.-O. (2010). Automatic associations and discrimination in hiring: Real world evidence. *Labour Economics*, *17*(3), 523–534.

Ross, A. (1957). "Tû-Tû." *Harvard Law Review*, *70*(5), 812–25.

Ross, H. L. (1980). *Settled Out of Court: The Social Process of Insurance Claims Adjustment* (p. 285). Transaction Publishers.

Roth, B. (2003). *Case-Based Reasoning in the Law: A Formal Theory of Reasoning by Case Comparison*. Unpublished Ph.D. dissertation, Maastricht University. On file with Maastricht University Library, Maastricht University.

Roth, B., & Verheij, B. (2004). Cases and Dialectical Arguments—an Approach to Case-Based Reasoning. In R. Meersman, Z. Tari, & A. Corsaro (Eds.), *OTM Workshops, Lecture Notes in Computer Science* (pp. 634–51). Berlin: Springer.

Scalia, A. (1997). *A Matter of Interpretation: Federal Courts and the Law.* Princeton, New Jersey: Princeton University Press.

Scanlon, T. (1998). *What We Owe to Each Other*. Cambridge Massachussetts: Belknap Press.

Schauer, F. (1991). *Playing by the Rules: A Philosophical Examination of Rule-Based Decisions in Life and Law*. Oxford: Clarendon Press.

Schauer, F. (2006). Do Cases Make Bad Law? *The University of Chicago Law Review*, *73*, 883.

Schauer, F. (2008). Why precedent in law (and elsewhere) is not totally (or even substantially) about analogy. *Perspectives on Psychological Science*, *3*(6), 454–460.

Schauer, F. (2012). Precedent. In A. Marmor (Ed.), *Routledge Companion To Philosophy of Law* (pp. 123–136). Routledge.

Scholz, B. C., Pelletier, F. J., & Pullum, G. K. (2011). Philosophy of Linguistics. In E. N. Zalta (Ed.), *The Stanford Encyclopedia Of Philosophy* (Fall 2011). Retrieved from http://plato.stanford.edu/entries/linguistics/

Shapiro, S. J. (2007). The " Hart-Dworkin " Debate : A Short Guide for the Perplexed. In A. Ripstein (Ed.), *Ronald Dworkin* (pp. 22–55). Cambridge, England: Cambridge University Press.

Sider, T. (2011). *Writing the Book of the World*. Oxford: Oxford University Press.

Siegler, A. (1984). Alternative Grounds in Collateral Estoppel. *Loyola of Los Angeles Law Review*, *17*, 1085–1124.

Silverberg, A. (1996). Psychological Laws and Non-Monotonic Logic. *Erkenntnis*, *44*(2), 199–224.

Stalnaker, R. C. (1974). Pragmatic Presupposition. In M. Munitz & D. Unger (Eds.), *Semantics and Philosophy* (pp. 197–219). New York: New York University Press.

Stalnaker, R. C. (1999). *Context and Content*. Oxford: Oxford University Press.

Stavropoulos, N. (2008). Interpretivist Theories of Law. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2008). Retrieved from http://plato.stanford.edu/archives/fall2008/entries/law-interpretivist/

Stoljar, N. (1998). Counterfactuals in Interpretation: The Case against Intentionalism. *Adel. L.*

Rev., *20*(41), 29.

Stoljar, N. (2003). Interpretation, Indeterminacy and Authority: Some Recent Controversies in the Philosophy of Law. *The Journal of Political Philosophy*, *11*(4), 470–498.

Tarski, A. (1944). The Semantic Conception of Truth and the Foundations of Semantics. *Philosophy and Phenomenological Research*, *4*(3), 341–376.

Tarski, A. (1956). The Concept of Truth in Formalized Languages. In A. Tarski (Ed.), *Logic, Semantics, Metamathematics* (pp. 152–278). Oxford: Oxford University Press.

The Restatement (Second) of Contracts. (1981). American Law Institute.

Thielscher, M. (2000). The Qualification Problem. In *Challenges for Action Theories* (pp. 85–118). Berlin: Springer.

Thomason, R. H. (2012). Logic and Artificial Intelligence. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Winter 2012). Retrieved from http://plato.stanford.edu/archives/win2012/entries/logic-ai/

Tversky, A. (1974). Judgment Under Uncertainty: Heuristics and Biases. *Science*, *185*, 1124–31.

White, E. G. (1987). *Earl Warren: A Public Life* (pp. 1–444). Oxford: Oxford University Press.

Wittgenstein, L. (1953). *Philosophical Investigations*. New York: Blackwell.

Wolcher, L. E. (2011). "Unjust" in the Restatement (Third) of Restitution & Unjust Enrichment. *Washington and Lee Law Review*, *68*(3), 911.

Yablo, S. (1993). Definitions, Conistent and Inconsistent. *Philosophical Studies*, (72), 147–175.

Table of Additional Works Consulted

Aleven, V. (2003). Using Background Knowledge in Case-based Legal Reasoning: A Computational Model and an Intelligent Learning Environment. *Artificial Intelligence*, *150*, 183–237.

Alexander, L. (1999). "With Me, It's All er Nuthin'": Formalism in Law and Morality. *The University of Chicago Law Review*, *66*(3), 530.

Bartha, P. F. A. (2010). *By Parallel Reasoning: The Construction and Evaluation of Analogical Arguments*. New York: Oxford University Press.

Bex, F., Koppen, P. J. van, Prakken, H., & Verheij, B. (2010). A Hybrid Formal Theory of Arguments, Stories and Criminal Evidence. *Artificial Intelligence and Law*, *2*, 123–152.

Fleming, J. E. (2006). The Place of History and Philosophy in the Moral Reading of the American Constitution. In S. Hershovitz (Ed.), *Exploring Law's Empire: The Jurisprudence of Ronald Dworkin* (pp. 23–41). Oxford: Oxford University Press.

Hershovitz, S. (2006). Integrity and Stare Decisis. In S. Hershovitz (Ed.), *Exploring Law's Empire: The Jurisprudence of Ronald Dworkin* (pp. 103–119). Oxford: Oxford University Press.

Holton, R. (2010). The Exception Proves the Rule. *The Journal of Political Philosophy*, (18), 369–388.

Holyoak, K. J., Lee, H. S., & Lu, H. (2010). Analogical and Category Based Inference: A Theoretical Integration With Bayesian Causal Models. *Journal of Experimental Psychology*, *139*(4), 702–27.

Sunstein, C. R. (1993). On Analogical Reasoning. *Harvard Law Review*, *106*(3), 741–91.

Walton, D. (2010). Similarity, Precedent and Argument from Analogy. *Artificial Intelligence and Law*, *18*(1), 217–46.