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Abstract: "Experimental jurisprudence" draws on empirical methods to inform questions typically associated with jurisprudence and legal theory. Scholars in this flourishing movement conduct empirical studies about a variety of legal language and concepts. Despite the movement's growth, its justification is still opaque. Jurisprudence is the study of deep and longstanding theoretical questions about law's nature, but "experimental jurisprudence," it might seem, simply surveys laypeople. This Article elaborates on and defends experimental jurisprudence. Experimental jurisprudence, appropriately understood, is not only consistent with traditional jurisprudence; it is an essential branch of it.

Experimental Jurisprudence

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I. WHAT IS EXPERIMENTAL JURISPRUDENCE?

Experimental jurisprudence is scholarship that addresses jurisprudential questions with empirical data, typically data from experiments.[1] This two-part definition is straightforward.[2] But it leads to surprising implications for the nature of jurisprudence and the research that it calls for.[3]

This Article introduces experimental jurisprudence (also known as "XJur") and proposes a framework to understand its contributions.[4] Next, it debunks several common myths about the movement.[5] Finally, it explains the central role that XJur should play in two other modern jurisprudential movements: the rise of "ordinary meaning" in legal interpretation and the "New Private Law."[6] To unpack the two-part definition—"experiments" plus "jurisprudence"—it is helpful to reflect on the meaning of each term. This first Part begins with that background.

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1 The term "experimental jurisprudence" nods to "experimental philosophy," the related experimental approach to questions in philosophy. *See* Joshua Knobe & Shaun Nichols, *An Experimental Philosophy Manifesto*, *in* EXPERIMENTAL PHILOSOPHY 3, 3 (Joshua Knobe & Shaun Nichols eds., 2008); *see also* Stephen Stich & Kevin P. Tobia, *Experimental Philosophy and the Philosophical Tradition*, *in* A COMPANION TO EXPERIMENTAL PHILOSOPHY 5, 5 (Justin Sytsma & Wesley Buckwalter eds., 2016) (explaining different versions and goals of experimental philosophy). One of the first modern mention of "experimental jurisprudence" is in Lawrence B. Solum, *The Positive Foundations of Formalism: False Necessity and American Legal Realism*, 127 HARV. L. REV. 2464, 2465 n.5 (2014) (first citing JOHN MIKHAIL, ELEMENTS OF MORAL COGNITION (2011); and then citing Kenworthey Bilz, *Dirty Hands or Deterrence? An Experimental Examination of the Exclusionary Rule*, 9 J. EMPIRICAL LEGAL STUD. 149 (2012)). Although new, the movement builds on important theoretical work in naturalizing jurisprudence, *see generally*, *e.g.*, BRIAN LEITER, NATURALIZING JURISPRUDENCE (2007), and the role of social science in legal philosophy, *see generally*, *e.g.*, Frederick Schauer, *Social Science and the Philosophy of Law*, *in* CAMBRIDGE COMPANION TO THE PHILOSOPHY OF LAW 95 (John Tasioulas ed., 2020). The term "experimental jurisprudence" had been used fifty years ago, in a very different way. *See* Frederick K. Beutel, *The Relationship of Experimental Jurisprudence to Other Schools of Jurisprudence and to Scientific Method*, 1971 WASH. U. L.Q. 385, 409 (1971) (describing an experimental-jurisprudence approach that required "[s]ocial [e]ngineering in [g]overnment").

2 It is mostly straightforward. See *infra* Part III.E on why "experimental jurisprudence" is better understood as "empirical jurisprudence."

3 *See infra* Part III.

4 *See infra* Parts I, II.

5 *See infra* Part III.

6 *See infra* Parts IV.A, IV.B. On ordinary meaning, see generally Richard H. Fallon, Jr., *The Meaning of Legal "Meaning" and Its Implications for Theories of Legal Interpretation*, 82 U. CHI. L. REV. 1235 (2015). On the New Private Law, see generally THE OXFORD HANDBOOK OF THE NEW PRIVATE LAW (Andrew S. Gold et al. eds., 2020).

The meaning of "jurisprudence" is itself highly controversial.[7] Consider some representative descriptions:

- In the United States, jurisprudence is "mostly synonymous with 'philosophy of law' [but there is also] a lingering sense of 'jurisprudence' that encompasses high legal theory . . . the elucidation of legal concepts and normative theory from within the discipline of law."[8]
- Jurisprudence is "the most fundamental, general, and theoretical plane of analysis of the social phenomenon called law. . . . Problems of jurisprudence include whether and in what sense law is objective . . . the meaning of legal justice . . . and the problematics of interpreting legal texts."[9]
- The "essence of the subject . . . involves the analysis of general legal concepts."[10]

These representative descriptions each characterize jurisprudence broadly—and differently. As such, this Article understands jurisprudence inclusively. In the words of legal philosopher Julie Dickson, jurisprudence is a "broad church."[11] It is concerned with descriptive questions about legal concepts and interpretation as well as normative questions about what law should be.[12] Jurisprudence approaches these questions from a broadly theoretical perspective, but it is not committed to a particular methodology.[13]

Despite this inclusivity and breadth, if forced to identify the core of modern jurisprudence, some might point to analytical jurisprudence.[14] A central project of analytical jurisprudence is the examination of legal

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7 *See generally* R.H.S. Tur, *What Is Jurisprudence?*, 28 PHIL. Q. 149 (1978). *See also* Schauer, *supra* note 1, at 95 n.2:

> The word 'jurisprudence' is often used these days as a synonym for 'philosophy of law'. But given the longstanding existence of fields known as historical jurisprudence, sociological jurisprudence, and so on . . . the word . . . remains ambiguous. Nevertheless, it remains important to resist the notion that . . . [jurisprudence] must necessarily be philosophical in method or focus.

8 Lawrence Solum, *Legal Theory Lexicon 044: Legal Theory, Jurisprudence, and the Philosophy of Law*, LEGAL THEORY LEXICON (May 6, 2018), https://perma.cc/ERE3-CMHW.

9 RICHARD A. POSNER, THE PROBLEMS OF JURISPRUDENCE, at xi (1990).

10 Tur, *supra* note 7, at 152.

11 Julie Dickson, *Ours Is a Broad Church: Indirectly Evaluative Legal Philosophy as a Facet of Jurisprudential Inquiry*, 6 JURISPRUDENCE 207, 209 (2015); *see also* Dan Priel, *Evidence-Based Jurisprudence: An Essay for Oxford*, *in* 2 ANALISI E DIRITTO 87, 88 (Giovanni Battista et al. eds., 2019).

12 *See generally* ROBIN WEST, NORMATIVE JURISPRUDENCE: AN INTRODUCTION (2011).

13 Dickson, *supra* note 11, at 209; Schauer, *supra* note 1, at 95–96.

14 Tur, *supra* note 7, at 152.

concepts, including the law itself,[15] causation,[16] reasonableness,[17] punishment,[18] and property.[19] That research typically involves "conceptual analysis," in which jurisprudence scholars reflect on legal concepts and attempt to articulate their features. Conceptual analysis also raises questions about which features concepts should have.[20] Despite some skepticism about conceptual analysis, it remains central to jurisprudence. As Alex Langlinais and Professor Brian Leiter put it, "In many areas of philosophy, doubts about . . . conceptual and linguistic analysis . . . have become common . . . but not so in legal philosophy."[21]

Good scholarship has good methods. What are the methods of jurisprudence? Within conceptual analysis, a common method involves reflecting on hypothetical test cases, i.e., thought experiments.[22] One's intuitions about these test cases are taken to provide evidence about whether the proposed analysis is successful.[23]

As an example, consider the legal concept of reasonableness. This concept is central to legal determinations such as tort negligence,[24] open contract price terms,[25] and the line between murder and manslaughter.[26] The term "reasonable" appears in over one-third of modern published judicial decisions.[27] So what are the legal criteria of what is reasonable? Jurisprudential analysis might begin with a proposed criterion before

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15 H.L.A. HART, THE CONCEPT OF LAW 1 (2d ed. 1994).

16 *See generally* H.L.A. HART & TONY HONORÉ, CAUSATION IN THE LAW (2d ed. 1985).

17 *See generally* John Gardner, *The Many Faces of the Reasonable Person*, 131 L.Q. REV. 563 (2015).

18 *See* GEORGE P. FLETCHER, BASIC CONCEPTS OF CRIMINAL LAW, at viii (1998).

19 *See* JOHN AUSTIN, LECTURES ON JURISPRUDENCE OR THE PHILOSOPHY OF POSITIVE LAW 795–99 (London, J. Murray ed., 1869). *See generally* Felix S. Cohen, *Dialogue on Private Property*, 9 RUTGERS L. REV. 357 (1954).

20 *See, e.g.*, Brian Bix, *Conceptual Questions and Jurisprudence*, 1 LEGAL THEORY 465 (1995); *see also* Aaron J. Rappaport, *On the Conceptual Confusions of Jurisprudence*, 7 WASH. U. JURIS. REV. 77, 79 (2014).

21 Alex Langlinais & Brian Leiter, *The Methodology of Legal Philosophy*, *in* THE OXFORD HANDBOOK OF PHILOSOPHICAL METHODOLOGY 671, 677 (Herman Cappelen et al. eds., 2016).

22 *See id.*

23 Brian Leiter, *Beyond the Hart/Dworkin Debate: The Methodology Problem in Jurisprudence*, 48 AM. J. JURIS. 17, 43–44 (2003) (explaining that jurisprudence "relies on two central argumentative devices—analyses of concepts and appeals to intuition").

24 RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM § 3 (AM. L. INST. 2005).

25 U.C.C. § 2-305 (AM. L. INST. & UNIF. L. COMM'N 2020).

26 MODEL PENAL CODE § 210.3(1)(b) (AM. L. INST. 1980).

27 *Historical Trends*, CASELAW ACCESS PROJECT, https://case.law/trends/?q=reasonable.

reflecting on test cases to intuitively assess the success of the proposed criterion.[28]

As a simple example, consider this criterion: an act is reasonable if—and only if—it is welfare maximizing in expectation. So, in negligence law, the proposed analysis holds that reasonable care is the care that would be expected to lead to the welfare-maximizing result. How might a legal philosopher evaluate the strength of this proposed analysis? They might assess this jurisprudential analysis against the following thought experiment about "life-saving negligence":

A company produces and sells yachts, donating all profits to a high-impact charity. That donation saves five lives per sale. Yacht production also creates pollution, which foreseeably kills one person in the nearby town per sale. The company could cheaply install a new production mechanism that would eliminate all pollution and increase production costs. That would eliminate all pollution deaths in the nearby town and decrease profits and thus donations, reducing lives saved to only two per yacht produced. The company does not install the new mechanism, and a number of people die from the pollution, and more are saved by the donations.

This decision appears to be welfare maximizing (five lives saved for each lost—plus the benefits of yachts). But it might seem, intuitively, that the company has not acted with "reasonable care" by failing to install the pollution-eliminating production mechanism.[29]

Such a reaction to this thought experiment represents something like a legal-philosophical discovery. The legal philosopher now has some intuitive "data," which might imply that the proposed conceptual analysis needs revision. That intuition (if widely shared) suggests that reasonable care is not simply welfare-maximizing care, and we should refine the analysis, test that revision with more cases, refine the analysis in light of those, and so on.

The life-saving-negligence thought experiment may elicit a shared response (for instance, that the company did not act with reasonable care).

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28 *E.g.*, George P. Fletcher, *The Right and the Reasonable*, 98 HARV. L. REV. 949, 949–50 (1985); *see also* Gregory C. Keating, *Reasonableness and Rationality in Negligence Theory*, 48 STAN. L. REV. 311, 311 (1996).

29 Or maybe not. Perhaps some readers do not share the intuition. The aim here is not to analyze reasonableness but to demonstrate a very familiar method of analysis.

Ignoring unshared intuitions can lead to some problems. There is a danger that the process of conceptual analysis falls victim to groupthink and to information cascades if those "who do not share the intuition are simply not invited to the games." Robert Cummins, *Reflection on Reflective Equilibrium*, *in* RETHINKING INTUITION 113, 116 (Michael R. DePaul & William Ramsey eds., 1998). The "shared" intuition takes on increasing strength as those with minority views leave the debate.

This response is an intuition. A jurist describes some scenario (actual or hypothetical) and invites readers to consider some questions about the scenario: Does the care seem reasonable? Which action seems like the cause? Is that rule a legal rule? Thought experiments and corresponding intuitions in legal theory include Justice Oliver Wendell Holmes's Bad Man,[30] the criminality of Professor Lon Fuller's Speluncean Explorers,[31] excuses for Professor Sandy Kadish's Mr. Fact and Mr. Law,[32] and the meaning of rules like Professor Frederick Schauer's "no vehicles in the park"[33] or Fuller's "[i]t shall be a misdemeanor . . . to sleep in any railway station."[34]

Most legal philosophers value this kind of intuitive evidence. Many give intuition great significance. As the philosopher and legal theorist Thomas Nagel puts it: "Given a knockdown argument for an intuitively unacceptable conclusion, one should assume there is probably something wrong with the argument that one cannot detect—though it is also possible that the source of the intuition has been misidentified."[35]

Of course, legal theorists rarely take shared intuitions to settle jurisprudential debate. For one, different cases can give rise to conflicting intuitions. Jurisprudence takes care to understand and resolve those conflicts. In her seminal work on the concept of consent, Professor Heidi Hurd proposes: "What should we do in the face of our conflicting intuitions . . . ? One possible solution is to grapple with our intuitions some more in the hope that further thought experiments will help us to determine which set of intuitions misleads us."[36] Nagel offers another solution: assess whether the "source of the intuition has been misidentified."[37] These methodological proposals—to assess whether intuitions are shared among philosopher colleagues or other persons, to grapple with further thought experiments, to uncover the "sources" of one's intuitions—are all part of traditional jurisprudence.

Experimental jurisprudence can be seen as providing an empirically grounded method of thought experimentation. As an example, consider the

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30 Oliver Wendell Holmes, Jr., *The Path of the Law*, 10 HARV. L. REV. 457, 459 (1897).

31 *See generally* Lon L. Fuller, *The Case of the Speluncean Explorers*, 62 HARV. L. REV. 616 (1949).

32 MONRAD PAULSEN & SANFORD KADISH, CRIMINAL LAW 485–86 (1962).

33 *See* Frederick Schauer, *A Critical Guide to Vehicles in the Park*, 83 N.Y.U. L. REV. 1109, 1110–11 (2008).

34 Lon Fuller, *Positivism and Fidelity to Law: A Reply to Professor Hart*, 71 HARV. L. REV. 630, 664 (1958).

35 THOMAS NAGEL, MORTAL QUESTIONS, at x (1979).

36 Heidi M. Hurd, *The Moral Magic of Consent*, 2 LEGAL THEORY 121, 143 (1996).

37 NAGEL, *supra* note 35, at x.

following experimental study about intent.[38] The study, conducted by Professors Markus Kneer and Sacha Bourgeois-Gironde, investigates a jurisprudential question: Does whether a side effect seems to be produced intentionally depend on the severity of the side effect?[39] Traditional jurisprudence might assess that question with thought experimentation, considering two examples of similar actions that lead to differently severe side effects.

Experimental jurisprudence proceeds in a similar way. In this case, the researchers recruited participants and randomly assigned them to evaluate two different scenarios.[40] In the first scenario (the "moderate" one), a mayor decides to build a new highway in order to improve the flow of traffic. However, the highway construction has a foreseeable side effect.[41] It will produce a moderate environmental impact; specifically, it will disturb some animals in the construction zone.[42] The mayor states that he does not "care at all about the environment" and proceeds with the program.[43] In the second scenario ("severe"), another group of participants evaluates a very similar case, except that, in this version, the environmental side effect is severe. It is foreseeable that the impacted animals will die.[44] Again, the mayor makes the same statement and goes ahead with the plan. In both scenarios, participants evaluate the same question: Did the mayor "intentionally" harm the environment?[45]

This study found that, perhaps surprisingly, intuitions about intentionality are sensitive to outcome severity.[46] Even though the mayor expresses the same attitude in both scenarios, participants assess his mental state differently.[47] They more strongly agreed that the harm was produced "intentionally" in the severe case.[48]

This result informs conceptual analysis.[49] For example, we can consider two different accounts of intentional action: one in which

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38 *See generally* Markus Kneer & Sacha Bourgeois-Gironde, *Mens Rea Ascription, Expertise and Outcome Effects: Professional Judges Surveyed*, 169 COGNITION 139 (2017); Joshua Knobe, *Intentional Action and Side Effects in Ordinary Language*, 63 ANALYSIS 190 (2003); *infra* Part II.

39 Kneer & Bourgeois-Gironde, *supra* note 38, at 143–44.

40 *Id.* at 143.

41 *Id.*

42 *Id.*

43 *Id.*

44 Kneer & Bourgeois-Gironde, *supra* note 38, at 143.

45 *Id.*

46 *Id.*

47 *Id.*

48 *Id.*

49 Or perhaps this method might exceed traditional analyses. For example, Professor Felipe Jiménez has written a generous and insightful critique of experimental jurisprudence, arguing that in legal theory, conceptual analysis should

intentionality is, in fact, sensitive to outcome severity and one in which it is not. As in a traditional jurisprudential analysis, this conceptual analysis makes predictions about how the concept applies. Experimental jurisprudence tests those predictions, supplementing thought experimentation with cognitive-scientific experimentation. Of course, one study does not resolve all debate. In response to this empirical finding, some might argue that the ordinary concept of intentionality is severity sensitive, and future empirical research could seek to test additional predictions of that theory. Others might argue that the experimental participants here exhibit some kind of bias. That latter account might be supported by further empirical research that clarifies that the "source" of the participants' intuitions is in some way inappropriate or untrustworthy.[50]

As this example suggests, there are complementarities between traditional and experimental jurisprudence. Traditional jurisprudence often proposes shared intuitions—i.e., claims about a widely shared response to a thought experiment. Experimental jurisprudence can help assess the robustness of that claim by seeking responses from a larger set of persons, including those who have little at stake in the theoretical debate.

Moreover, experimental jurisprudence can help assess questions about intuitions that are hard to address from the armchair. For example, suppose that we tried to test the severity sensitivity of intentionality through thought experiments. Perhaps some can intuitively discern that, all else equal, a very bad outcome seems more intentionally produced than a moderately bad outcome. But it might be hard to feel very confident about those individual intuitions. Other, more subtle patterns of human judgment may be impossible to accurately assess just by thinking hard. The experimental approach, which studies large samples of people and assigns them to consider different versions of thought experiments, can help detect more

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look primarily to the judgments of "legal officials." Felipe Jiménez, *Some Doubts About Folk Jurisprudence: The Case of Proximate Cause*, U. CHI. L. REV. ONLINE (Aug. 23, 2021), https://perma.cc/QP5H-YRXC. Jiménez's critique is leveled primarily at "folk jurisprudence." Rather than relying on laypeople's judgments, Jiménez argues that conceptual analysis should rely on the judgments of legal officials. But that proposal has a (perhaps) surprising implication: insofar as most legal philosophers are not legal officials, jurisprudence should not generally rely on the judgments of legal-philosophy PhDs. So even some critics of folk jurisprudence may find that experimental jurisprudence has something to offer. For example, in the experimental-jurisprudence study discussed here, the participants were professional judges. *See* Kneer & Bourgeois-Gironde, *supra* note 38, at 143.

50 In experimental philosophy, the "negative" program has focused on these types of debunking arguments. *See, e.g.*, Joshua Alexander, Ronald Mallon & Jonathan M. Weinberg, *Accentuate the Negative*, 1 REV. PHIL. PSYCH. 297, 298 n.2 (2010). *See generally* Stephen Stich & Kevin Tobia, *Experimental Philosophy and the Philosophical Tradition*, *in* A COMPANION TO EXPERIMENTAL PHILOSOPHY 5 (2016).

subtle patterns of judgment, including ones that are not obvious or even introspectively accessible to an individual legal theorist.[51]

This example suggests some commonality between traditional jurisprudence and experimental jurisprudence. Both propose theories about legal concepts (e.g., the intentionality of a foreseeable side effect depends on its severity), both test those theories with (thought) experiments, and both revise the conceptual analysis in light of the findings. Perhaps "experimentation" is neither unfamiliar nor unwelcome in jurisprudence.

At the same time, there are differences between the approaches. Traditional jurisprudence occurs in the seminar room—or across the pages of law reviews—among professors and scholars with significant training and expertise. Experimental jurisprudence normally begins online, by surveying laypeople with no special legal training. In analyzing the concepts of legal intent, consent, cause, and reasonableness, why should we think that the views of laypeople with no formal legal training are particularly helpful?

The remainder of this Article answers this question. Part II details some examples of recent experimental jurisprudence, proposing a framework to unify these diverse projects. Part III takes inspiration from philosopher John Gardner's seminal work,[52] debunking "five-and-a-half" popular myths about experimental jurisprudence. In doing so, this Article distinguishes experimental jurisprudence from seemingly similar approaches to legal scholarship. Part IV argues that experimental jurisprudence is particularly well placed to contribute to two central areas of modern legal theory: the debate about "ordinary meaning" in legal interpretation and the "New Private Law." Together, these Parts aim to clarify and justify the movement of experimental jurisprudence, concluding that it should be understood as a movement at the core of traditional jurisprudence.

II. SOME RECENT EXPERIMENTAL-JURISPRUDENCE RESEARCH

To understand the significance of the experimental-jurisprudence movement, it is instructive to study examples of work in the area. This Part's brief overview cannot do justice to the enormous and ever-growing number of examples.[53] This Part highlights experimental-jurisprudence

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51 Importantly, experimental jurisprudence does not simply compute answers to legal questions. For example, the key takeaway from this empirical study is not that judges and juries should now hold that foreseeable side effects are more "intentional" as they become more severe. To the contrary, jurisprudential debate about that question continues. *See infra* Part III.

52 John Gardner, *Legal Positivism: 5 1/2 Myths*, 46 AM. J. JURIS. 199 (2001).

53 For other introductions to the field of experimental jurisprudence, see generally Stefan Magen & Karolina Prochownik, *Legal X-Phi Bibliography*, CTR.

studies across several areas: studies of mental states (including knowledge, recklessness, and intent), consent, causation, and law itself. But experimental jurisprudence has also studied criminal responsibility and

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FOR L., BEHAV. & COGNITION, https://zrsweb.zrs.rub.de/institut/clbc/legal-x-phi-bibliography; Niek Strohmaier, *Introducing: Experimental Jurisprudence*, LEIDEN L. BLOG (Dec. 1, 2017), https://perma.cc/EQ74-NRLU; Karolina Magdalena Prochownik, *The Experimental Philosophy of Law: New Ways, Old Questions, and How not to Get Lost*, 16 PHIL. COMPASS e12791 (2021); Roseanna Sommers, *Experimental Jurisprudence: Psychologists Probe Lay Understandings of Legal Constructs*, 373 SCIENCE 394 (2021); and THE CAMBRIDGE HANDBOOK OF EXPERIMENTAL JURISPRUDENCE (Kevin Tobia ed., forthcoming 2023).

punishment,[54] blame,[55] justice,[56] human rights,[57] law and morality,[58] the internal point of view,[59] abstract versus concrete legal principles,[60] state

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54 *See generally* Mark Alicke, *Culpable Causation*, 63 J. PERSONALITY & SOC. PSYCH. 368 (1992); John M. Darley, Kevin M. Carlsmith & Paul H. Robinson, *Incapacitation and Just Deserts as Motives for Punishment*, 24 LAW & HUM. BEHAV. 659 (2000); Kevin M. Carlsmith, John M. Darley & Paul H. Robinson, *Why Do We Punish? Deterrence and Just Deserts as Motives for Punishment*, 83 J. PERSONALITY & SOC. PSYCH. 284 (2002); Kenworthey Bilz & John M. Darley, *What's Wrong with Harmless Theories of Punishment*, 79 CHI.-KENT L. REV. 1215 (2004); John M. Darley, *Morality in the Law: The Psychological Foundations of Citizens' Desires to Punish Transgressions*, 5 ANN. REV. L. & SOC. SCI. 1 (2009); Fiery Cushman, *Crime and Punishment: Distinguishing the Roles of Causal and Intentional Analyses in Moral Judgment*, 108 COGNITION 353 (2008); Fiery Cushman, *Should the Law Depend on Luck*, *in* FUTURE SCIENCE: ESSAYS FROM THE CUTTING EDGE (Max Brockman ed., 2011); John M. Darley, *Citizens' Assignments of Punishments for Moral Transgressions: A Case Study in the Psychology of Punishment*, 8 OHIO ST. J. CRIM. L. 101 (2010); Thomas Nadelhoffer, Saeideh Heshmati, Deanna Kaplan & Shaun Nichols, *Folk Retributivism and the Communication Confound*, 29 ECON. & PHIL. 235 (2013); Fiery Cushman, *Punishment in Humans: From Intuitions to Institutions*, 10 PHIL. COMPASS 117 (2015); Kenworthey Bilz, *Testing the Expressive Theory of Punishment*, 13 J. EMPIRICAL LEGAL STUD. 358 (2016); Jessica Bregant, Alex Shaw & Katherine D. Kinzler, *Intuitive Jurisprudence: Early Reasoning About the Functions of Punishment*, 13 J. EMPIRICAL LEGAL STUD. 693 (2016); Eddy Nahmias & Eyal Aharoni, *Communicative Theories of Punishment and the Impact of Apology*, *in* RETHINKING PUNISHMENT IN THE ERA OF MASS INCARCERATION 144 (Chris W. Surprenant ed., 2018); Karolina Prochownik, *Do People with a Legal Background Dually Process? The Role of Causation, Intentionality and Pragmatic Linguistic Considerations in Judgments of Criminal Responsibility*, *in* THE PROVINCE OF JURISPRUDENCE NATURALIZED 168 (Jerzy Stelmach et al., eds., 2017); Karolina Prochownik & Matthias Unterhuber, *Does the Blame Blocking Effect for Assignments of Punishment Generalize to Legal Experts?*, 43 COGNITIVE SCI. 2285 (2018); Markus Kneer & Edouard Machery, *No Luck for Moral Luck*, 182 COGNITION 331 (2019); Paul C. Bauer & Andrei Poama, *Does Suffering Suffice? An Experimental Assessment of Desert Retributivism*, 15 PLOS ONE e0230304 (2020); James P. Dunlea & Larisa Heiphetz, *Children's and Adults' Understanding of Punishment and the Criminal Justice System*, 87 J. EXPERIMENTAL SOC. PSYCH. 1 (2020); James P. Dunlea & Larisa Heiphetz, *Children's and Adults' Views of Punishment as a Path to Redemption*, 92 CHILD DEV. e398 (2021); James P. Dunlea & Larisa Heiphetz, *Language Shapes Children's Attitudes: Consequences of Internal, Behavioral, and Societal Information in Punitive and Non-punitive Contexts*, J. EXPERIMENTAL PSYCH.: GEN. (2021); Justin W. Martin & Larisa Heiphetz, *"Internally Wicked": Investigating How and Why Essentialism Influences Punitiveness and Moral Condemnation*, 45 COGNITIVE SCI. 1 (2021); PAUL H. ROBINSON & JOHN M. DARLEY, JUSTICE, LIABILITY, AND BLAME: COMMUNITY VIEWS AND THE CRIMINAL LAW (1995); PAUL H. ROBINSON, DISTRIBUTIVE PRINCIPLES OF CRIMINAL LAW: WHO SHOULD BE PUNISHED HOW MUCH? (2008); THE FUTURE OF PUNISHMENT (Thomas A. Nadelhoffer ed., 2013).

55 *See generally* Mark D. Alicke & Teresa L. Davis, *The Role of a Posteriori Victim Information in Judgments of Blame and Sanction*, 25 J. EXPERIMENTAL SOC. PSYCH. 362 (1989); Mark D. Alicke, *Culpable Control and the Psychology of Blame*, 126 PSYCH. BULL. 556 (2000); Lawrence M. Solan, *Cognitive Foundations of the Impulse to Blame*, 68 BROOK. L. REV. 1003 (2003); Karolina Prochownik,

Alex Wiegmann & Joachim Horvath, *Blame Blocking and Expertise Effects Revisited*, 43 PROC. ANN. MEETING COGNITIVE SCI. SOC'Y 2323 (2021); Janice Nadler & Mary-Hunter McDonnell, *Moral Character, Motive, and the Psychology of Blame*, 97 CORNELL L. REV. 255 (2012).

56 *See generally* John M. Darley, *Citizens' Sense of Justice and the Legal System*, 10 CURRENT DIRECTIONS PSYCH. SCI. 10 (2001); John M. Darley & Thane S. Pittman, *The Psychology of Compensatory and Retributive Justice*, 7 PERSONALITY & SOC. PSYCH. REV. 324 (2003).

57 *See generally* John Mikhail, *Moral Grammar and Human Rights: Some Reflections on Cognitive Science and Enlightenment Rationalism*, *in* UNDERSTANDING SOCIAL ACTION, PROMOTING HUMAN RIGHTS 160 (Ryan Goodman et al. eds., 2012).

58 *See generally* Raff Donelson & Ivar R. Hannikainen, *Fuller and the Folk: The Inner Morality of Law Revisited*, *in* 3 OXFORD STUDIES IN EXPERIMENTAL PHILOSOPHY 6 (Tania Lombrozo et al. eds., 2020); Brian Flanagan & Ivar Hannikainen, *The Folk Concept of Law: Law Is Intrinsically Moral*, AUSTRALASIAN J. PHIL. (2020), https://perma.cc/EF34-AZ6L; Bert I. Huang, *Law's Halo and the Moral Machine*, 119 COLUM. L. REV. 1811 (2019); Bert I. Huang, *Shallow Signals*, 126 HARV. L. REV. 2227 (2013); Bert I. Huang, *Law and Moral Dilemmas*, 130 HARV. L. REV. 659 (2016) (reviewing F.M. KAMM, THE TROLLEY PROBLEM MYSTERIES (2015)).

59 *See generally* Leonard Hoeft, *The Force of Norms? The Internal Point of View in Light of Experimental Economics*, 32 RATIO JURIS 339 (2019).

60 *See generally* Piotr Bystranowski, Bartosz Janik, Maciej Próchnicki, Ivar Rodriguez Hannikainen, Guilherme da Franca Couto Fernandes de Almeida & Noel Struchiner, *Do Formalist Judges Abide by Their Abstract Principles? A Two-Country Study in Adjudication*, INT'L J. FOR SEMIOTICS L. (2021), https://perma.cc/A8AY-R8WA; Noel Struchiner, Guilherme da F.C.F. de Almeida & Ivar R. Hannikainen, *Legal Decision-Making and the Abstract/Concrete Paradox*, COGNITION (Sept. 3, 2020) https://perma.cc/H8DT-UFA8.

paternalism,[61] nationality,[62] identity and the self,[63] free speech,[64] custody decisions,[65] happiness,[66] lying,[67] outcome severity,[68] attempts,[69] harm,[70]

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61 *See generally* Ivar Hannikainen, Gabriel Cabral, Edouard Machery & Noel Struchiner, *A Deterministic Worldview Promotes Approval of State Paternalism*, 70 J. EXPERIMENTAL SOC. PSYCH. 251 (2017).

62 *See generally* Larisa J. Hussak & Andrei Cimpian, *"It Feels Like It's in Your Body": How Children in the United States Think About Nationality*, 148 J. EXPERIMENTAL PSYCH.: GEN. 1153 (2019).

63 *See generally* Daniel M. Bartels & Lance J. Rips, *Psychological Connectedness and Intertemporal Choice*, 139 J. EXPERIMENTAL PSYCH.: GEN. 49 (2010); Brian D. Earp, Joshua August Skorburg, Jim A.C. Everett & Julian Savulescu, *Addiction, Identity, Morality*, 10 AM. J. BIOETHICS: EMPIRICAL BIOETHICS 136 (2019); Sarah Molouki, Daniel M. Bartels & Oleg Urminsky, *A Longitudinal Study of Difference Between Predicted, Actual, and Remembered Personal Change*, 39 PROC. COGNITIVE SCI. SOC. 2748 (2017); Sarah Molouki & Daniel M. Bartels, *Personal Change and the Continuity of the Self*, 93 COGNITIVE PSYCH. 1 (2017); George E. Newman, Paul Bloom & Joshua Knobe, *Value Judgments and the True Self*, 40 PERSONALITY & SOC. PSYCH. BULL. 203 (2014); Nina Strohminger & Shaun Nichols, *The Essential Moral Self*, 131 COGNITION 159 (2014); Kevin P. Tobia, *Personal Identity and the Phineas Gage Effect*, 75 ANALYSIS 396 (2015); Kevin Patrick Tobia, *Personal Identity, Direction of Change, and Neuroethics*, 9 NEUROETHICS 37 (2016); Nina Strohminger & Shaun Nichols, *Neurodegeneration and Identity*, 26 PSYCH. SCI. 1469 (2015); Christian Mott, *Statutes of Limitations and Personal Identity*, *in* 2 OXFORD STUDIES IN EXPERIMENTAL PHILOSOPHY, *supra* note 58, at 243; James P. Dunlea, Redeate G. Wolle & Larisa Heiphetz, *The Essence of an Immigrant Identity: Children's Pro-social Response to Others Based on Perceived Ability and Desire to Change*, *in* EXPERIMENTAL PHILOSOPHY OF IDENTITY AND THE SELF (Kevin Tobia ed., 2022); David Shoemaker & Kevin P. Tobia, *Personal Identity*, *in* OXFORD HANDBOOK OF MORAL PSYCHOLOGY (forthcoming); Mihailis E. Diamantis, *Limiting Identity in Criminal Law*, 60 B.C. L. REV. 2011 (2019); Mihailis E. Diamantis, *Corporate Identity*, *in* EXPERIMENTAL PHILOSOPHY OF IDENTITY AND THE SELF (forthcoming 2022).

64 *See generally* Jonas De keersmaecker, Dries H. Bostyn, Alain Van Hiel & Arne Roets, *Disliked but Free to Speak: Cognitive Ability Is Related to Supporting Freedom of Speech for Groups Across the Ideological Spectrum*, 12 SOC. PSYCH. & PERSONALITY SCI. 34 (2021).

65 *See generally* Luiza Lopes Franco Costa, Ana Beatriz Dillon Esteves, Roxana Kreimer, Noel Struchiner & Ivar Hannikainen, *Gender Stereotypes Underlie Child Custody Decisions*, 49 EUR. J. SOC. PSYCH. 548 (2019).

66 *See generally* Jonathan Phillips, Julian De Freitas, Christian Mott, June Gruber & Joshua Knobe, *True Happiness: The Role of Morality in the Folk Concept of Happiness*, 146 J. EXPERIMENTAL PSYCH.: GEN. 165 (2017); Markus Kneer & Daniel M. Haybron, Happiness and Well-Being: Is It All in Your Head? Evidence from the Folk (November 24, 2019) (unpublished manuscript) (on file with author); John Bronsteen, Brian Leiter, Jonathan Masur & Kevin Tobia, The Folk Theory of Well-Being (unpublished manuscript) (on file with author).

67 *See generally* Emanuel Viebahn, Alex Wiegmann, Neele Engelmann & Pascale Willemsen, *Can a Question Be a Lie? An Empirical Investigation*, ERGO (2020), available at https://perma.cc/J9UX-LVM5; Alex Wiegmann & Jörg Meibauer, *The Folk Concept of Lying*, 14 PHIL. COMPASS, no. 8, Aug. 2019.

68 *See generally* Kneer & Bourgeois-Gironde, *supra* note 38; Jeffrey J. Rachlinski, Andrew J. Wistrich & Chris Guthrie, *Altering Attention in*

Adjudication, 60 UCLA L. REV. 1586 (2013); Markus Kneer, *Reasonableness on the Clapham Omnibus: Exploring the Outcome-Sensitive Folk Concept of Reasonable*, *in* JUDICIAL DECISION-MAKING: INTEGRATING EMPIRICAL AND THEORETICAL PERSPECTIVES (forthcoming).

69 *See generally* Thomas Nadelhoffer, *Attempts: In Ordinary Language and the Criminal Law—A Commentary*, 3 JURISPRUDENCE 475 (2012).

70 *See generally* Matthew B. Kugler, *From Identification to Identity Theft: Public Perceptions of Biometric Privacy Harms*, 10 U.C. IRVINE L. REV. 107 (2019).

liability,[71] interpretation,[72] evidence,[73] settlement,[74] contract,[75] promise,[76] ownership,[77] disability,[78] reasonableness,[79] the balancing tests,[80] and legal rules.[81]

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71 *See generally* Joseph Sanders, Matthew B. Kugler, Lawrence M. Solan & John M. Darley, *Must Torts Be Wrongs? An Empirical Perspective*, 49 WAKE FOREST L. REV. 1 (2014).

72 *See generally* Lawrence Solan, Terri Rosenblatt & Daniel Osherson, *False Consensus Bias in Contract Interpretation*, 108 COLUM. L. REV. 1268 (2008); Matthew R. Ginther, Francis X. Shen, Richard J. Bonnie, Morris B. Hoffman, Owen D. Jones, René Marois & Kenneth W. Simons, *The Language of Mens Rea*, 67 VAND. L. REV. 1327 (2014); Omri Ben-Shahar & Lior Jacob Strahilevitz, *Interpreting Contracts via Surveys and Experiments*, 92 N.Y.U. L. REV. 1753 (2017); Jessica Bregant, Isabel Wellbery & Alex Shaw, *Crime but Not Punishment? Children Are More Lenient Toward Rule-Breaking when the "Spirit of the Law" Is Unbroken*, 178 J. EXPERIMENTAL CHILD PSYCH. 266 (2019); Noel Struchiner, Ivar R. Hannikainen & Guilherme da F.C.F. de Almeida, *An Experimental Guide to Vehicles in the Park*, 15 JUDGMENT & DECISION MAKING 312 (2020); Kevin P. Tobia, *Testing Ordinary Meaning*, 134 HARV. L. REV. 726 (2020); Shlomo Klapper, Soren Schmidt & Tor Tarantola, *Ordinary Meaning from Ordinary People*, U.C. IRVINE L. REV. (unpublished manuscript); James Macleod, *Finding Original Public Meaning*, 56 GA. L. REV. 1 (2022); Kevin Tobia, Brian G. Slocum & Victoria Nourse, *Statutory Interpretation from the Outside*, 122 COLUM. L. REV. 213 (2022) [hereinafter *Statutory Interpretation from the Outside*]; Julian Nyarko & Sarath Sanga, A Statistical Test for Legal Interpretation: Theory and Applications (Nov. 25, 2020) (unpublished manuscript), available at https://perma.cc/7BCH-CQFY; Kevin Tobia, Brian G. Slocum & Victoria Nourse, *Progressive Textualism*, 110 GEO. L.J. (forthcoming 2022).

73 *See generally* Bilz, *supra* note 1; Avani Mehta Sood, *Cognitive Cleansing: Experimental Psychology and the Exclusionary Rule*, 103 GEO. L.J. 1543 (2015); Susan A. Bandes & Jessica M. Salerno, *Emotion, Proof and Prejudice: The Cognitive Science of Gruesome Photos and Victim Impact Statements*, 46 ARIZ. ST. L.J. 1003 (2014); Andreas Glöckner & Christoph Engel, *Can We Trust Intuitive Jurors? Standards of Proof and the Probative Value of Evidence in Coherence-Based Reasoning*, 10 J. EMPIRICAL LEGAL STUD. 230 (2013).

74 *See generally* Russell Korobkin & Chris Guthrie, *Psychology, Economics, and Settlement: A New Look at the Role of the Lawyer*, 76 TEX. L. REV. 77 (1997); Jessica Bregant, Jennifer K. Robbennolt & Verity Winship, *Perceptions of Settlement*, 27 HARV. NEGOT. L. REV. 93 (2022); John Bronsteen, Christopher Buccafusco & Jonathan S. Masur, *Hedonic Adaptation and the Settlement of Civil Lawsuits*, 108 COLUM. L. REV. 1516 (2008).

75 *See generally* Tess Wilkinson-Ryan, *Do Liquidated Damages Encourage Breach? A Psychological Experiment*, 108 MICH. L. REV. 633 (2010); Tess Wilkinson-Ryan & Jonathan Baron, *Moral Judgment and Moral Heuristics in Breach of Contract*, 6 J. EMPIRICAL LEGAL STUD. 405 (2009); David A. Hoffman & Tess Wilkinson-Ryan, *The Psychology of Contract Precautions*, 80 U. CHI. L. REV. 395 (2013); Tess Wilkinson-Ryan & David A. Hoffman, *The Common Sense of Contract Formation*, 67 STAN. L. REV. 1269 (2015); Takeyoshi Kawashima, *The Legal Consciousness of Contract in Japan*, 7 LAW IN JAPAN 1 (1974); Tess Wilkinson-Ryan, *The Perverse Consequences of Disclosing Standard Terms*, 103 CORNELL L. REV. 117 (2017); Meirav Furth-Matzkin & Roseanna Sommers, *Consumer Psychology and the Problem of Fine-Print Fraud*, 72 STAN. L. REV. 503 (2020).

This research has focused largely on lay judgment, but some of it has studied populations with legal training, including law students and judges.[82]

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76 *See generally* Christoph Vanberg, *Why Do People Keep Their Promises? An Experimental Test of Two Explanations*, 76 ECONOMETRICA 1467 (2008); Gary Charness & Martin Dufwenberg, *Bare Promises: An Experiment*, 107 ECON. LETTERS 281 (2010); Tess Wilkinson-Ryan, *Legal Promise and Psychological Contract*, 47 WAKE FOREST L. REV. 843 (2012); Florian Ederer & Alexander Stremitzer, *Moral Intuitions of Promise Keeping*, 65 PRINCIPIA 5 (2018); Florian Ederer & Alexander Stremitzer, *Promises and Expectations*, 106 GAMES & ECON. BEHAV. 161 (2017); Dorothee Mischkowski, Rebecca Stone & Alexander Stremitzer, *Promises, Expectations, and Social Cooperation*, 62 J.L. & ECON. 687 (2019); Rebecca Stone & Alexander Stremitzer, *Promises, Reliance, and Psychological Lock-In*, 49 J. LEGAL STUD. 33 (2020).

77 *See generally* Shaylene E. Nancekivell, Ori Friedman & Susan A. Gelman, *Ownership Matters: People Possess a Naïve Theory of Ownership*, 23 TRENDS IN COGNITIVE SCIS. 102 (2019); Shaylene E. Nancekivell, Charles J. Millar, Pauline C. Summers & Ori Friedman, *Ownership Rights*, *in* A COMPANION TO EXPERIMENTAL PHILOSOPHY 247 (Justin Sytsma & Wesley Buckwalter eds., 2016); Ori Friedman, Madison L. Pesowski & Brandon W. Goulding, *Legal Ownership Is Psychological: Evidence from Young Children*, *in* PSYCHOLOGICAL OWNERSHIP AND CONSUMER BEHAVIOR 19 (Joann Peck & Suzanne B. Shu eds., 2018); Patricia Kanngiesser & Bruce M. Hood, *Young Children's Understanding of Ownership Rights for Newly Made Objects*, 29 COGNITIVE DEV. 30 (2014); Ori Friedman, Julia W. Van de Vondervoort, Margaret A. Defeyter & Karen R. Neary, *First Possession, History, and Young Children's Ownership Judgments*, 84 CHILD DEV. 1519 (2013); Shaylene E. Nancekivell, Julia W. Van de Vondervoort & Ori Friedman, *Young Children's Understanding of Ownership*, 7 CHILD DEV. PERSPS. 243 (2013); Peter DeScioli, Rachel Karpoff & Julian De Freitas, *Ownership Dilemmas: The Case of Finders Versus Landowners*, 41 COGNITIVE SCI. 502 (2017); Margaret Echelbarger, Steven O. Roberts & Susan A. Gelman, *Children's Concerns for Equity and Ownership in Contexts of Individual-Based and Group-Based Inequality*, J. COGNITION & DEV. (2021).

78 *See generally* Doron Dorfman, *Suspicious Species*, 2021 U. ILL. L. REV. 1363; Doron Dorfman, *[Un]usual Suspects: Deservingness, Scarcity, and Disability Rights*, 10 U.C. IRVINE L. REV. 557 (2020).

79 *See generally* Kevin P. Tobia, *How People Judge What is Reasonable*, 70 ALA. L. REV. 293 (2018); Igor Grossman, Richard P. Eibach, Jacklyn Koyama & Qaisar B. Sahi, *Folk Standards of Sound Judgment; Rationality Versus Reasonableness*, 6 SCI. ADVANCES (2020); Christopher Brett Jaeger, *The Empirical Reasonable Person*, 72 ALA. L. REV. 887 (2021); Mikaela Spruill & Neil A. Lewis Jr., *Legal Descriptions of Police Officers Affect How Citizens Judge Them*, 101 J. EXP. SOC. PSYCH. (2022). Experimental work also suggests that ordinary people overestimate the cognitive skills that people possess. *See generally* Jeffrey J. Rachlinski, *Misunderstanding Ability, Misallocating Responsibility*, 68 BROOK. L. REV. 1055 (2003); Kneer & Haybron, *supra* note 68.

80 *See generally* Christoph Engel & Rima Maria Rahal, Justice Is in the Eyes of the Beholder – Eye Tracking Evidence on Balancing Normative Concerns in Torts Cases (Jan. 2020) (unpublished discussion paper) (on file with author).

81 *See generally* Struchiner et al., *supra* note 72; Tobia et al., *supra* note 72.

82 Tobia, *supra* note 72, at 762. *See also generally* Tobia et al., *supra* note 72; Kneer & Bourgeois-Gironde, *supra* note 38; Holger Spamann & Lars Klöhn, *Justice Is Less Blind, and Less Legalistic, than We Thought: Evidence from an Experiment with Real Judges*, 45 J. LEGAL STUD. 255 (2016); Daniel Klerman &

And while much of this work involves U.S. participants, today's experimental-jurisprudence movement is the product of international efforts; some of the most impressive examples are conducted by researchers outside the United States—for example, by researchers in Brazil, Spain, Lithuania and Germany.[83] Recent studies have also emphasized the importance of cross-cultural samples, employing cross-cultural and cross-linguistic studies.[84]

Finally, it is difficult to precisely categorize whether some studies fall neatly into "experimental jurisprudence." The research has important connections to research in behavioral law and economics,[85] legal heuristics

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Holger Spamann, Law Matters – Less Than We Thought (Jan. 19, 2021) (U.S.C. L. Sch. working paper) (on file with author).

83 *See, e.g.*, Struchiner et al., *supra* note 72; Vilius Dranseika, Jonas Dagys & Renatas Besniunas, *Proper Names, Rigidity, and Empirical Studies on Judgments of Identity Across Transformations*, 39 TOPOI 381 (2020); Kneer & Bourgeois-Gironde, *supra* note 38.

84 *See generally* Ivar R. Hannikainen, et al., *Are There Cross-Cultural Legal Principles? Modal Reasoning Uncovers Procedural Constraints on Law*, 45 COGNITIVE SCI., no. 8, Aug. 2021; Holger Spamann, Lars Klöhn, Christophe Jamin, Vikramaditya Khanna, John Zhuang Liu, Pavan Mamidi, Alexander Morell & Ivan Reidel, *Judges in the Lab: No Precedent Effects, No Common/Civil Law Differences*, 13 J. LEGAL ANALYSIS 110 (2021); John Zhuang Liu, Lars Klöhn & Holger Spamann, *Precedent and Chinese Judges: An Experiment*, 69 AM. J. COMPAR. L. 93 (2021).

85 *See generally* Jeffrey J. Rachlinski, *The Psychological Foundations of Behavioral Law and Economics*, 2011 U. ILL. L. REV. 1675.

and biases,[86] motivated reasoning,[87] experimental bioethics,[88] experimental longtermism,[89] and research in law and corpus linguistics.[90]

The remainder of this Part turns to some recent examples of experimental jurisprudence. Again, most of these examples study ordinary concepts, for example, how laypeople evaluate what is "intentional" or "consensual." Those studies are typically embedded within a particular jurisprudential debate—questions about the nature of intent or causation.

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86 *See generally* Chris Guthrie, Jeffrey J. Rachlinski & Andrew J. Wistrich, *Judging by Heuristic: Cognitive Illusions in Judicial Decision Making*, 86 JUDICATURE 44 (2002); Chris Guthrie, Jeffrey J. Rachlinski & Andrew J. Wistrich, *Blinking on the Bench: How Judges Decide Cases*, 93 CORNELL L. REV. 1 (2007); Erin M. Harley, *Hindsight Bias in Legal Decision Making*, 25 SOC. COGNITION 48 (2007); Jeffrey J. Rachlinski, Sheri Johnson, Andrew J. Wistrich & Chris Guthrie, *Does Unconscious Racial Bias Affect Trial Judges?*, 84 NOTRE DAME L. REV. 1195 (2009); Jeffrey J. Rachlinski, Chris Guthrie & Andrew J. Wistrich, *Probable Cause, Probability, and Hindsight*, 8 J. EMPIRICAL LEGAL STUD. 72 (2011); Jeffrey J. Rachlinski, *Heuristics and Biases in the Courts: Ignorance or Adaptation?*, 79 OR. L. REV. 61 (2000); Andrew J. Wistrich, Jeffrey J. Rachlinski & Chris Guthrie, *Heart Versus Head: Do Judges Follow the Law or Follow Their Feelings?*, 93 TEX. L. REV. 855 (2015); Moa Lidén, Minna Gräns & Peter Juslin, *'Guilty, No Doubt': Detention Provoking Confirmation Bias in Judges' Guilt Assessments and Debiasing Techniques*, 25 PSYCH., CRIME & L. 219 (2018); Moa Lidén, Minna Gräns & Peter Juslin, *From Devil's Advocate to Crime Fighter: Confirmation Bias and Debiasing Techniques in Prosecutorial Decision-Making*, 25 PSYCH., CRIME & L. 494 (2018); Christoph K. Winter, *The Value of Behavioral Economics for EU Judicial Decision-Making*, 21 GERMAN L.J. 240 (2020); Andreas Glöckner & Christoph Engel, *Role-Induced Bias in Court: An Experimental Analysis*, 26 BEHAV. DECISION MAKING 272 (2013); David E. Melnikoff & Nina Strohminger, *The Automatic Influence of Advocacy on Lawyers and Novices*, 4 NATURE HUM. BEHAV. 1258 (2020).

87 *See generally* Dan M. Kahan, David Hoffman, Danieli Evans, Neal Devins & Eugene Lucci, *"Ideology" or "Situation Sense"? An Experimental Investigation of Motivated Reasoning and Professional Judgment*, 164 U. PA. L. REV. 349 (2016).

88 *See generally* Brian D. Earp et al., *Experimental Philosophical Bioethics*, 11 AM. J. BIOETHICS: EMPIRICAL BIOETHICS 30 (2020); Brian D. Earp, Stephen R. Latham & Kevin P. Tobia, *Personal Transformation and Advance Directives: An Experimental Bioethics Approach*, 20 AM. J. BIOETHICS 72 (2020); Emilian Mihailov, Ivar R. Hannikainen & Brian D. Earp, *Advancing Methods in Empirical Bioethics: Bioxphi Meets Digital Technologies*, 21 AM. J. BIOETHICS 53 (2021).

89 *See generally* Eric Martínez & Christoph Winter, *Experimental Longtermist Jurisprudence*, *in* ADVANCES IN EXPERIMENTAL PHILOSOPHY OF LAW (S. Magan & K. Prochownik eds., 2022).

90 *See generally* Davide Mazzi, *"Our Reading Would Lead to . . . ": Corpus Perspectives on Pragmatic Argumentation in U.S. Supreme Court Judgments*, 3 J. ARGUMENTATION IN CONTEXT 103 (2014); Justin Sytsma, Roland Bluhm, Pascale Willemsen & Kevin Reuter, *Causal Attributions and Corpus Analysis*, *in* METHODOLOGICAL ADVANCES IN EXPERIMENTAL PHILOSOPHY 209 (Eugen Fischer & Mark Curtis eds., 2019); MICHAEL STUBBS, TEXT AND CORPUS ANALYSIS: COMPUTER-ASSISTED STUDIES OF LANGUAGE AND CULTURE (1996); Thomas R. Lee & Stephen C. Mouritsen, *Judging Ordinary Meaning*, 127 YALE L.J. 788 (2018).

But (at the risk of oversimplifying), it may be useful to introduce one broader hypothesis that is relevant to many recent studies.

This hypothesis is the "folk-law thesis."[91] Broadly speaking, the claim is that ordinary concepts are at the heart of legal concepts. For example, this account would predict that the legal concept of causation reflects features of the ordinary concept of causation and that the legal concept of consent reflects features of the ordinary concept of consent. If this were true, it would provide one general reason for jurisprudential scholars to evaluate empirical research about ordinary concepts. If there are surprising features of ordinary concepts to be discovered, such discoveries might also constitute discoveries of features of legal concepts. For example, a discovery about how people understand ordinary cause (or intent, or consent, or reasonableness) might actually enrich our understanding of the legal notion of cause (or intent, or consent, or reasonableness).

The strong version of this thesis holds that a given legal concept is identical to its ordinary counterpart. The weak version holds that a given legal concept shares some features of the ordinary concept. Even if the strong version of the thesis is false (with respect to a given concept), the weaker folk-law thesis may prove useful in structuring inquiry. For example, learning more about the ordinary concept can help clarify what is, in fact, distinct about the legal concept.

This Part's order of presentation reflects the breadth of experimental jurisprudence. Much of the best-known experimental jurisprudence studies concepts that are specifically referenced in law: knowledge, intent, and consent. But experimental jurisprudence also studies concepts that are not explicitly referenced as outcome-determinative ones, such as the concept of personal identity—or even law itself. Finally, experimental jurisprudence studies broader classes of concepts. For example, in addition to studying the specific concept of causation (which is relevant to the law of tort negligence because it uses the criterion "cause"), it also studies a broader type of causal reasoning (which is relevant to employment-law rules analyzing whether some act was performed "because of" *X* or whether some act "results from" *X*).

This Part concludes with some broader considerations about the nature of experimental jurisprudence, in light of this investigation. Although experimental jurisprudence often focuses on studying terms cited explicitly in law (e.g., "consent"), this is not its primary criterion. Rather,

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91 Professors Steve Guglielmo, Andrew Monroe and Bertram Malle propose that folk psychology may also be at the heart of morality. *See* Steve Guglielmo, Andrew E. Monroe & Bertram F. Malle, *At the Heart of Morality Lies Folk Psychology*, 52 INQUIRY 449 (2009); Kevin Tobia, *Law and the Cognitive Science of Ordinary Concepts*, *in* LAW AND MIND: A SURVEY OF LAW AND THE COGNITIVE SCIENCES 86 (Bartosz Brożek et al. eds., 2021).

experimental jurisprudence might study any ordinary concept that has a counterpart of legal significance. For example, it studies the ordinary concepts of intent or cause to inform legal theorizing about intent or cause. But it also studies ordinary concepts that do not have counterparts that appear prominently as terms in jury instructions, for example, responsibility and the self. As such, the key question in identifying an area of potential experimental-jurisprudential study is not whether a term is cited explicitly in some legal rule but rather which concepts have jurisprudential significance.

A. Significant Examples

1. Mental states (knowledge, recklessness, intent).

From criminal law mens rea to the distinction between intentional and unintentional torts, mental states have great legal significance. What is knowledge, recklessness, or intent? Experimental jurisprudence has contributed to these legal questions by studying these ordinary concepts.[92]

As a first example, consider the legal distinction between knowledge and recklessness. Professor Iris Vilares and her co-authors sought to test whether there is an ordinary distinction between knowledge and recklessness. To do so, they ran a neuroscientific experiment, evaluating whether different brain states were associated with different attributions of knowledge and recklessness.[93]

They conducted an fMRI study involving a "contraband scenario."[94] Participants evaluated different scenarios in which they could carry a suitcase—which might have contraband in it—through a security

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92 *See generally* DARLEY & ROBINSON, *supra* note 54; Bertram F. Malle & Sarah E. Nelson, *Judging Mens Rea: The Tension Between Folk Concepts and Legal Concepts of Intentionality*, 21 BEHAV. SCIS. & L. 563 (2003); Thomas Nadelhoffer, *Bad Acts, Blameworthy Agents, and Intentional Actions: Some Problems for Juror Impartiality*, 9. PHIL. EXPL. 203 (2006); Thomas Nadelhoffer & Eddy Nahmias, *Neuroscience, Free Will, Folk Intuitions, and the Criminal Law*, 36 THURGOOD MARSHALL L. REV. 157 (2011); Pam A. Mueller, Lawrence M. Solan & John M. Darley, *When Does Knowledge Become Intent? Perceiving the Minds of Wrongdoers*, 9 J. EMPIRICAL LEGAL STUD. 859 (2012); James A. Macleod, *Belief States in Criminal Law*, 68 OKLA. L. REV. 497 (2016); Lara Kirfel & Ivar R. Hannikainen, *Why Blame the Ostrich? Understanding Culpability for Willful Ignorance*, *in* ADVANCES IN EXPERIMENTAL PHILOSOPHY OF LAW, *supra* note 89; Kneer & Bourgeois-Gironde, *supra* note 38; Ginther et al., *supra* note 72.

93 Iris Vilares, Michael J. Wesley, Woo-Young Ahn, Richard J. Bonnie, Morris Hoffman, Owen D. Jones, Stephen J. Morse, Gideon Yaffe, Terry Lohrenz & P. Read Montague, *Predicting the Knowledge–Recklessness Distinction in the Human Brain*, 114 PROC. NAT'L ACAD. SCI. 3222 (2017).

94 *Id.* at 3223.

checkpoint.[95] The probability that the suitcase had contraband varied across different scenarios. In some scenarios, participants were completely sure that the suitcase had contraband (knowledge condition) while in others, there was merely a risk that the suitcase had contraband (recklessness condition).[96]

The study found that participants' evaluations of the two states (knowledge, recklessness) differed and were associated with different brain regions.[97] Moreover, the fMRI data predicted whether participants faced a knowledge or recklessness scenario.[98] The researchers took this as evidence that the legal concepts are, in part, running parallel to an ordinary distinction.[99] This finding suggests that the legal categories of knowledge and recklessness are actually founded on the ordinary notions.

Many other experimental studies have evaluated knowledge[100] and intent.[101] As one example, Markus Kneer and colleagues have found that ordinary people are sometimes sensitive to the severity of a side effect when judging whether it was produced intentionally.[102] Recall this Article's earliest hypothetical about life-saving negligence.[103] The company aimed to

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95 *Id.*
96 *Id.*
97 *Id.* at 3224.
98 Vilares et al., *supra* note 93, at 3224.
99 *Id.* at 3226.
100 *See generally* David Rose et al., *Nothing at Stake in Knowledge*, 53 NOÛS 224 (2019); Edouard Machery et al., *The Gettier Intuition from South America to Asia*, 34 J. INDIAN COUNCIL PHIL. RSCH. 517 (2017).
101 *See generally* Malle & Nelson, *supra* note 92; Thomas Allen Nadelhoffer III, Intentions and Intentional Actions in Ordinary Language and the Criminal Law (2005) (Ph.D. dissertation, Fla. St. Univ.) (on file with author); Nadelhoffer, *supra* note 92; Sydney Levine, John Mikhail & Alan M. Leslie, *Presumed Innocent? How Tacit Assumptions of Intentional Structure Shape Moral Judgment*, 147 J. EXPERIMENTAL PSYCH.: GEN. 1728 (2018); John Mikhail, *Moral Grammar and Intuitive Jurisprudence: A Formal Model of Unconscious Moral and Legal Knowledge*, 50 PSYCH. LEARNING & MOTIVATION 27 (2009); Julia Kobick & Joshua Knobe, *Interpreting Intent: How Research on Folk Judgments of Intentionality Can Inform Statutory Analysis*, 75 BROOK. L. REV. 409 (2009); Julia Kobick, Note, *Discriminatory Intent Reconsidered: Folk Concepts of Intentionality and Equal Protection Jurisprudence*, 45 HARV. C.R.-C.L. L. REV. 517 (2010); Karolina Prochownik, Melina Krebs, Alex Wiegmann & Joachim Horvath, *Not as Bad as Painted? Legal Expertise, Intentionality Ascription, and Outcome Effects Revisited*, *in* 42 PROC. ANN. CONF. COGNITIVE SCI. SOC'Y 1930 (2020); Francis X. Shen, Morris B. Hoffman, Owen D. Jones, Joshua D. Greene & René Marois, *Sorting Guilty Minds*, 86 N.Y.U. L. REV. 1306 (2011).
102 *See generally* Markus Kneer, The Side-Effect Effect as an Instance of a Severity Effect (unpublished manuscript) (on file with author); Markus Kneer, Ivar Hannikainen, Marc-André Zehnder & Guilherme Almeida, The Severity Effect on Intention and Knowledge. A Cross-Cultural Study with Laypeople and Legal Experts (unpublished manuscript) (on file with author).
103 *See supra* Part I.

sell yachts, which would raise money for them and for charity, but that production decision had one bad side effect: creating pollution. Did the company intentionally pollute? Research shows that in these cases, people are more inclined to judge that the pollution is intentionally produced when it is deadly than when it is nonfatal.[104] In other words, the severity of a side-effect affects participants' attributions of intentionality.

These studies about ordinary concepts raise intriguing jurisprudential questions. In an approach similar to that of traditional jurisprudence, experimental-jurisprudence scholars evaluate the source of these judgments: Is severity sensitivity a performance error (a mistaken intuition in response to the thought experiment)? They also ask normative questions: Should the legal criterion of intentional action reflect this "severity sensitivity" feature of the ordinary concept? In response to this latter question, some argue no,[105] while others have raised considerations in favor of yes.[106] As in traditional jurisprudence, these debates are not easily resolved. But learning more about the ordinary concept raises new and important questions about how law should understand knowledge, recklessness, intent, and other mental states.

2. Consent.

As another example, consider the experimental jurisprudence study of consent. Exciting recent work in this area comes from Professor Roseanna Sommers, who has investigated the ordinary understanding of consent across a range of legal contexts. One important line of her work focuses on the relationship between deception and consent. "Under the canonical view, material deception vitiates consent."[107] When someone's agreement is gained through deception about a material fact, there is not valid consent. For example, imagine that I offer to sell you a car with "only ten thousand miles," and you agree. In reality, the car has one hundred thousand miles. Your agreement would not be consensual if you relied upon my misrepresentation.

Sommers's experimental jurisprudence of consent has found, however, that ordinary people often attribute "consent" in circumstances in which there has been significant deception.[108] In one of Sommers's experimental

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104 *See generally* Kneer & Bourgeois-Gironde, *supra* note 38. *Cf. generally* Knobe, *supra* note 38.

105 *See, e.g.*, Kneer & Bourgeois-Gironde, *supra* note 38, at 140.

106 *See, e.g.*, Kevin P. Tobia, Legal Concepts and Legal Expertise 68 (Feb. 10, 2020) (unpublished manuscript) (on file with author).

107 Roseanna Sommers, *Commonsense Consent*, 129 YALE L.J. 2232, 2252 (2020).

108 *Id. See also generally* Joanna Demaree-Cotton & Roseanna Sommers, *Autonomy and the Folk Concept of Valid*, Consent, 224 COGNITION (2022);

hypotheticals, a single woman does not desire to sleep with married men. The woman asks a potential partner about his marital status, and he lies, saying that he is not married.[109] The woman then agrees to sleep with him. In this case, the overwhelming majority of participants judged that the woman did "give consent to sleep with [the man]."[110] Despite deception regarding a very important fact (the man's marital status), most people attribute consent.[111]

Given the crucial role that consent plays across tort, criminal, and contract law, these findings raise broad questions.[112] Is the legal notion of consent consistent with the ordinary concept? Of course, this experiment does not settle this complex jurisprudential question. But it does provide the longstanding jurisprudential debate with unique insights. For example, Sommers's further studies suggest that the source of this intuition is something about what seems to be an "essential" part of the agreement.[113] Deception about the essence of the contract or arrangement vitiates consent, but deception about less essential features does not. Here again, this data does not settle the debate about how law should identify the right criteria of legal consent. But it provides important new insight into a jurisprudential analysis; if our intuitions about what seems consensual depend on our view of what is essential to the agreement (rather than what's merely material), does that give us any reason to revise the legal notion of consent?

Roseanna Sommers & Vanessa K. Bohns, *The Voluntariness of Voluntary Consent: Consent Searches and the Psychology of Compliance*, 128 YALE. L.J. 1962 (2019); Tess Wilkinson-Ryan, *A Psychological Account of Consent to Fine Print*, 99 IOWA L. REV. 1745 (2014); ROBINSON & DARLEY, *supra* note 54. Empirical work suggests that people are afraid to decline police officers' requests and feel pressure to consent to searches. *See generally, e.g.*, Janice Nadler & J.D. Trout, *The Language of Consent in Police Encounters*, *in* OXFORD HANDBOOK OF LANGUAGE AND LAW 326 (Peter M. Tiersma & Lawrence M. Solan eds., 2012).

109 Sommers, *supra* note 107, at 2252.

110 *Id.*

111 Note that the same finding arises for various types of deception and various question types: did the woman "let [the man] have sex with her," or did she "give [the man] permission to have sex with her." *Id.* at 2323. This relates to the discussion, *infra*, of classes of concepts. Many take experimental jurisprudence to focus primarily on concepts cited by law (e.g., consent). But experimental jurisprudence studies a wide range of concepts and classes of concepts that have legal significance.

112 Hurd, *supra* note 36, at 123 ("[C]onsent turns a trespass into a dinner party; a battery into a handshake; a theft into a gift; an invasion of privacy into an intimate moment; a commercial appropriation of name and likeness into a biography.").

113 Sommers, *supra* note 107, at 2301.

3. Causation.

As a third example, turn to experimental jurisprudence of causation. Jurisprudence has long studied "the plain man's notions of causation."[114] Experimental jurisprudence makes new progress on that traditional inquiry.[115]

When thinking about potential causes, there are several plausible features of significance. One is the potential cause's necessity: Would the outcome have occurred if not for the cause? A second is its sufficiency: Was the cause enough to bring about the outcome?

Studies in cognitive science have shown that the ordinary concept of causation is informed by both of these features.[116] Professor James Macleod has recently conducted important work in this area, designing a study to test whether this feature of the ordinary concept also manifests in people's judgments about cases of legal causation.[117] He considered three legal examples: a scenario asking whether death "result[ed] from" a certain drug, a scenario asking whether an employee was terminated "because of" his

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114 HART & HONORÉ, *supra* note 16, at 1.

115 *See generally* Barbara A. Spellman, *Crediting Causality*, 126 J. EXPERIMENTAL PSYCH.: GEN. 323 (1997); Erich J. Greene & John M. Darley, *Effects of Necessary, Sufficient, and Indirect Causation on Judgments of Criminal Liability*, 22 LAW & HUM. BEHAV. 429 (1998); Lawrence M. Solan & John M. Darley, *Causation, Contribution, and Legal Liability: An Empirical Study*, 64 LAW & CONTEMP. PROBS. 265 (2001); Robert A. Prentice & Jonathan J. Koehler, *A Normality Bias in Legal Decision Making*, 88 CORNELL L. REV. 583 (2003); David A. Lagnado & Shelley Channon, *Judgments of Cause and Blame: The Effects of Intentionality and Foreseeability*, 108 COGNITION 754 (2008); Christopher Hitchcock & Joshua Knobe, *Cause and Norm*, 106 J. PHIL. 587 (2009); Barbara A. Spellman & Christopher R. Holland, *When Knowledge Matters to Causation*, 5 ANN. CONF. EMPIRICAL LEGAL STUD. (2010); Mark Alicke, David Rose & Dori Bloom, *Causation, Norm Violation and Culpable Control*, 108 J. PHIL. 670 (2011); Jonathan F. Kominsky, Jonathan Phillips, Tobias Gerstenberg, David Lagnado & Joshua Knobe, *Causal Superseding*, 137 COGNITION 196 (2015); Paul Henne, Ángel Pinillos & Felipe De Brigard, *Cause by Omission and Norm: Not Watering Plants*, 95 AUSTRALASIAN J. PHIL. 270 (2017); James A. Macleod, *Ordinary Causation: A Study in Experimental Statutory Interpretation*, 94 IND. L.J. 957 (2019); Lara Kirfel & David Lagnado, *Causal Judgments About Atypical Actions Are Influenced by Agents' Epistemic States*, 212 COGNITION 1 (2021); David A. Lagnado & Tobias Gerstenberg, *Causation in Legal and Moral Reasoning*, *in* THE OXFORD HANDBOOK OF CAUSAL REASONING 565 (Michael R. Waldmann ed., 2017); Pascale Willemsen & Lara Kirfel, *Recent Empirical Work on the Relationship Between Causal Judgments and Norms*, 14 PHIL. COMPASS, no. 1, Jan. 2019; Levin Güver & Markus Kneer, *Causation and the Silly Norm Effect*, *in* ADVANCES IN EXPERIMENTAL PHILOSOPHY OF LAW (2022).

116 *See* Joshua Knobe & Scott Shapiro, *Proximate Cause Explained: An Essay in Experimental Jurisprudence*, 88 U. CHI. L. REV. 165, 235 (2021).

117 *See generally* Macleod, *supra* note 115.

age, and a scenario asking whether someone was assaulted "because of" his religion.[118]

Participants considered one of four types of cases, each of which varied whether the cause was necessary or sufficient to bring about an outcome:

(i) necessary and sufficient,
(ii) necessary but not sufficient,
(iii) sufficient but not necessary, or
(iv) not sufficient and not necessary.[119]

For example, in the drug case, a protagonist buys three different drugs, one from each of three different dealers. The drug that participants were asked about may have been (i) the only drug potent enough to kill by itself, (ii) the only drug potent enough to kill when combined with either of the others, (iii) one of three drugs potent enough to kill by itself, or (iv) one of several drugs potent enough to kill when combined with any other.

That experiment made two striking discoveries. First, people attributed causation in cases in which the cause was not a but-for cause (i.e., (iii) and (iv)). Second, sufficiency had an important effect on ordinary judgments of causation.[120] These findings cohere with recent cognitive-scientific findings that ordinary judgments of causation are influenced by both necessity and sufficiency.[121]

4. Law.

The preceding examples involve concepts that law cites explicitly: intent, consent, and cause. But experimental jurisprudence also studies some ordinary concepts that have a less explicit legal connection. This next example serves as a proof of this concept.

Consider the concept of law itself. Professors Raff Donelson and Ivar Hannikainen examined how ordinary people understand law. In an important series of experiments, they tested whether ordinary people (and legal experts) endorsed Fuller's conditions of the inner morality of law.[122]

In one experiment, they investigated whether people think that law has to be consistent, general, intelligible, public, and stable. That study asked two questions. First, are these conditions of law seen as necessary? Second, do laws in practice observe these principles? The responses—from ordinary

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118 *Id.* at 995.
119 *Id.* at 996.
120 *Id.* at 999–1000.
121 Recent cognitive science has also highlighted another significant factor in ordinary judgments of causation: (ab)normality. *See generally* Knobe & Shapiro, *supra* note 116; Andrew Summers, *Common-Sense Causation in the Law*, 38 OXFORD J. LEGAL STUD. 793 (2018); Solan & Darley, *supra* note 115.
122 Donelson & Hannikainen, *supra* note 58, at 10.

people and experts alike—are fascinating. There was strong endorsement of the conditions as principles of law. Yet participants also agreed that there are some laws that are (in fact) not prospective, stable, intelligible, or general.[123] A recent cross-cultural collaboration has replicated the results from this study across eleven different countries.[124]

As with the other experimental-jurisprudential studies, the lesson here is not for the law to simply reflect the ordinary notion. (Donelson and Hannikainen do not recommend that law have a self-contradictory nature.) Rather, the experiment adds insight to traditional jurisprudential debates: What features do we believe laws must and do have? And what explains those judgments?

B. A Framework for Identifying Experimental Jurisprudence

This summary, although not entirely brief, has only scratched the surface. Before turning to the next Part, it is worth elaborating what connects these very diverse projects. One common view is that XJur studies ordinary language and concepts that are invoked explicitly in law. Where the law invokes intent or consent, XJur studies the ordinary concept of intent or consent.

XJur does study those concepts but not because of their explicit legal citation. A more useful criterion is whether the legal object of study has an ordinary-language or ordinary-conceptual counterpart. This difference is clarified in Figure 1 below.

FIGURE 1: A HEURISTIC FOR IDENTIFYING EXPERIMENTAL JURISPRUDENCE

	Is the object of study referred to explicitly in legal materials (e.g., judicial opinions, statutes, or jury instructions)?		
Does the legally significant object of study have an ordinary counterpart?		Frequently	Rarely
	Yes	Cause; consent; intent; reasonable	Numerical identity; responsibility; the concept of law
	No	Parol evidence rule; stare decisis	Legal positivism; soft law

It may seem that the only objects of XJur's study are those that are invoked explicitly in legal materials. This is partly a result of the (mistaken) view that experimental jurisprudence is principally concerned with

123 *Id.* at 18.
124 Hannikainen et al., *supra* note 84, at 10.

predicting how judges or juries will decide cases.[125] Of course, many experimental-jurisprudence studies have focused on those concepts. Unsurprisingly, many important legal concepts also appear with regularity in real legal texts.

However, this criterion—what terms and phrases appear explicitly in legal materials—will not direct us to every useful experimental-jurisprudential project. Many other notions are rarely invoked explicitly in law but are crucial jurisprudential concepts nevertheless. These include concepts of personal identity and the self, (moral) blame and responsibility, and the concept of law itself.

To take just one example, consider the concept of "numerical identity." This is a crucial legal concept.[126] It is implicated as a necessary criterion of most interesting diachronic legal relations. When are you bound by that contract? Only when you are the same person as one of the parties who originally agreed to it. When does he deserve criminal punishment? Only when he is the same person as the one who committed the crime. Yet numerical identity is hardly ever cited explicitly by courts.[127]

The same is true of other important legal concepts: although courts cite "law," it is rare for a case to turn on the concept of law or on the concept of soft law. That said, there is not much to learn from studying the ordinary concept of the parol evidence rule, insofar as it has no ordinary-language counterpart.[128] The better criterion for identifying useful experimental-jurisprudential inquiries is whether the legal object has a corresponding ordinary-language counterpart. Because experimental jurisprudence often focuses on ordinary cognition,[129] these ordinary concepts are the most valuable to study.

The more useful criterion is whether a counterpart of some ordinary concept plays an important role in the law. This is true of ordinary concepts whose counterparts are cited explicitly (such as the ordinary notion of what

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125 *See infra* Part III.C.

126 *See generally* K.T. Matsumura, *Binding Future Selves*, 75 LA. L. REV. 71 (2014); James Toomey, *Narrative Capacity*, 100 N.C. L. REV. (forthcoming 2022) (manuscript at 32–38) (on file with author).

127 A Westlaw search, across all state and federal jurisdictions, returned ten cases.

128 Of course, if these legal concepts are composed of concepts that have ordinary counterparts, then studying the lay view of those counterparts might prove useful. A good example is the Hand Formula. Although most ordinary people do not speak about or even know the Hand Formula, there may be useful experimental-jurisprudential work in the study of its components (studying how ordinary people weigh burdens of prevention against probability and severity of harm). This reflects an important feature of Figure 1. The top row (reflecting that the legal concept has an ordinary counterpart) is a useful heuristic for finding experimental-jurisprudential projects, but it is not a necessary requirement.

129 *See infra* Part III.

is reasonable, consensual, or self-defense) but also ones that are not explicitly cited (such as the ordinary notion of numerical identity or of the concept of law itself).

Before turning to the next Part, there is one final wrinkle. XJur often focuses on specific legally significant concepts, such as ownership. But sometimes it focuses on broader classes of concepts, for example, studying how law treats concepts that admit of a broad range of potential category members.[130]

One example is Macleod's important work on causation.[131] His studies examine lay judgments of vignettes that use different phrases—such as "because of" and "result from"—that are taken to reflect ordinary causal reasoning. Another example is Sommers's work on consent.[132] Those experiments study judgments about consent and also whether a person "willingly" acted or gave "permission."[133]

These experiments report similar patterns of judgment across vignettes using these varied terms, and they reveal something more general about ordinary causal or consensual reasoning rather than simply something about some more specific term (e.g., "consent").

III. EXPERIMENTAL JURISPRUDENCE: FIVE-AND-A-HALF MYTHS

This Part considers some popular claims about experimental jurisprudence, arguing that these are actually myths.[134] Here, debunking each myth helps clarify the nature of experimental jurisprudence. Collectively, these explanations also justify XJur's aims and methods.

The first half myth is the claim that XJur is new—an invention of the past five or ten years. That claim is misleading: experimental jurisprudence is not new. But there is a kernel of truth in the myth. In recent years, the movement has grown dramatically. Today, more scholars are conducting this research, discussing a broader range of jurisprudential topics and using a larger set of empirical methodologies.

The next five "full myths" reflect objections and challenges to experimental jurisprudence. The first two claim that XJur is misguided in its focus on laypeople rather than legal experts and that it is focused on predicting the outcome of specific instances of jury decision making. In fact, XJur has good reasons to study laypeople—reasons that go beyond predicting the outcomes of specific cases.

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130 *See generally* Tobia, *supra* note 106.
131 *See generally* Macleod, *supra* note 115.
132 *See generally, e.g.*, Sommers, *supra* note 107.
133 *Id.*
134 This Section's framework takes inspiration from John Gardner's seminal piece on legal positivism. *See* Gardner, *supra* note 52.

The next two myths are apparent truisms: Any given empirical data is either "experimental jurisprudential," or it is not. And any XJur scholarship must present original experiments. Understanding why these are myths further clarifies the nature and aims of experimental jurisprudence and its connection to traditional jurisprudence.

These first four (and a half) myths provide the groundwork for debunking the final myth: experimental jurisprudence is not really jurisprudence. In fact, XJur is surprisingly consistent with the aims and methods of traditional jurisprudence. Moreover, the questions and concerns of traditional jurisprudence call for the modern experimental-jurisprudence approach. As such, experimental jurisprudence should be understood as not merely consistent with jurisprudence but a movement at its core.

A. The Half Myth: Experimental Jurisprudence Is New

Experimental jurisprudence is often described as new.[135] If this means that experimental jurisprudence is an invention of the past decade, that's not right. First, the name is not new. In the 1930s, the term "experimental jurisprudence" described a movement committed to sociological jurisprudence. Its practitioners were interested in uncovering facts and social behavior related to law and testing the effects of laws with a "scientific method."[136] That realism-inspired movement studied laws' behavioral effects and tended to eschew formalistic study of legal concepts.[137] As such, the modern experimental jurisprudence—committed to the earnest study of ordinary and legal concepts—significantly diverges from the older one.

So, "experimental jurisprudence" refers to two movements that share a commitment to legal empiricism (but little else). Beyond this shared name, there is also a deeper sense in which experimental jurisprudence is not new. Although there has been an explosion of recent work in experimental jurisprudence,[138] paradigmatic examples of the modern approach can be traced back to at least the early twentieth century.

Contemporary experimental-jurisprudence research typically assigns lay participants to different treatments to assess the effect of those treatments on people's evaluations of questions related to legal theory.

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135 *E.g.*, Knobe & Shapiro, *supra* note 116, at 165 (describing experimental jurisprudence as "a new way of doing legal theory"); Sommers, *supra* note 53, at 394 ("This new approach departs from traditional law and psychology in both its scope and ambition.").

136 Frederick K. Beutel, *Some Implications of Experimental Jurisprudence*, 48 HARV. L. REV. 169, 170 (1934).

137 *Id.* at 169.

138 *See supra* Part II.

Studies of that type can be found in the early twentieth century.[139] And others followed: for example, a 1955 study presented participants with different crimes (e.g., forgery, arson, bigamy) and different descriptions of the criminal's social class (a "semiskilled worker," "store manager," or "manager of a big manufacturing plant") to assess lay judgments of the seriousness of the offense under each class description.[140] Similar studies, concerning public perceptions of crime and criminal behavior, appear throughout the twentieth century.[141]

The same is true of the broader field of experimental philosophy.[142] The term "experimental philosophy" has taken other meanings before its use in the modern movement.[143] And, more importantly, research before the twenty-first century likely qualifies as "experimental philosophy," understood in the modern sense. In the 1950s—long before the days of Amazon Mechanical Turk (MTurk)[144]—a group of Norwegian philosophers remarked that "[w]hen philosophers offer conflicting answers to questions that have empirical components, empirical research is needed."[145] Those philosophers used various empirical methods, including hypothesis-driven surveys. They also used corpus-linguistics-style analysis of philosophical terms' usage in texts (from newspapers to Hume's *Treatise of Human Nature*).[146] Pre-twenty-first-century research in other fields (e.g.,

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139 *See generally, e.g.*, F.C. Sharp & M.C. Otto, *A Study of the Popular Attitude Towards Retributive Punishment*, 20 INT'L J. ETHICS 341 (1910) (assessing whether laypeople endorse a principle of retribution across different types of scenarios). I believe that I first learned of this example from Thomas Nadelhoffer.

140 Arnold M. Rose & Arthur E. Prell, *Does the Punishment Fit the Crime? A Study in Social Valuation*, 61 AM. J. SOCIO. 247, 251–52 (1955).

141 *See generally, e.g.*, Graeme R. Newman & Carol Trilling, *Public Perceptions of Criminal Behavior: A Review of the Literature*, 2 CRIM. JUST. & BEHAV. 217 (1975); David M. Rafky & Ronald W. Sealey, *The Adolescent and the Law: A Survey*, 21 CRIME & DELINQ. 131 (1975) (studying intuitions about the law by varying prior contact with the law (arrested, never arrested) and race (white, black)).

142 *E.g.*, *Experimental Philosophy*, STAN. ENCYCLOPEDIA PHIL. (2017), https://perma.cc/SF7N-T8AV ("Experimental philosophy is a relatively new approach, usually understood as beginning only in the early years of the 21st century."). *But see id.* (describing Socrates as an inspiration to the negative program).

143 *See generally* MARGARET CAVENDISH, OBSERVATIONS UPON EXPERIMENTAL PHILOSOPHY (Eileen O'Neill ed., 2001) (1666).

144 *See infra* note 215 and accompanying text.

145 ARNE NÆSS, INTERPRETATION AND PRECISENESS: A CONTRIBUTION TO THE THEORY OF COMMUNICATION, at VIII (1953). *See also generally* Arne Næss, *"You Assert This?": An Empirical Study of Weight Expressions*, *in* EMPIRICAL LOGIC AND PUBLIC DEBATE: ESSAYS IN HONOUR OF ELSE M. BARTH 121 (Erik C.W. Krabbe et al. eds., 1993).

146 *See generally* Taylor Shaw Murphy, *Experimental Philosophy: 1935-1965*, *in* 1 OXFORD STUDIES IN EXPERIMENTAL PHILOSOPHY, *supra* note 58, at 325.

experimental semantics)[147] also shares commonalities with experimental philosophy.

On a broader definition of "experimental philosophy," the origin is even earlier. Alberto Vanzo and Professor Peter Anstey note that seventeenth-century philosophers distinguished between "experimental philosophy" and "speculative philosophy." The former is certainly different from today's experimental philosophy. But there are striking similarities: both attempt to replace assumptions about philosophical systems with observational, empirical, or experimental foundations.[148]

The claim that today's "experimental philosophy" traces to the seventeenth century is controversial. But it is uncontroversial that experimental philosophy and experimental jurisprudence are not new in the past five years—or even in the twenty-first century. Examples of experimental jurisprudence can be traced to the 1910s.[149] And central work in the modern field was published almost thirty years ago. In 1995, Professors Paul Robinson and John Darley presented lay participants with different scenarios designed to assess whether lay intuitions cohere with criminal law. For example, participants considered different types of intercourse scenarios—forceable intercourse between strangers, dates, married persons, or homosexual persons—and assessed whether the victim "consented," whether the victim "caused" the outcome, and whether the victim acted in a way that was "morally inappropriate."[150]

That experimental jurisprudence is new is the first myth. But this is something of a half myth. Although examples of this work existed long before this Article's central examples, today's movement is growing

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147 *See generally* Teenie Matlock & Bodo Winter, *Experimental Semantics*, *in* OXFORD HANDBOOK OF LINGUISTIC ANALYSIS (Bernd Heine & Heiko Narrog eds., 2015) (describing empirical research from the 1970s and 1980s concerning theoretical questions about language).

148 *See generally* EXPERIMENT, SPECULATION AND RELIGION IN EARLY MODERN PHILOSOPHY (Alberto Vanzo & Peter R. Anstey eds., 2019) (describing experimental philosophy, in contrast to "speculative philosophy," in the seventeenth century); *see also* Peter R. Anstey & Alberto Vanzo, *Early Modern Experimental Philosophy*, *in* A COMPANION TO EXPERIMENTAL PHILOSOPHY 87, 98 (Justin Sytsma & Wesley Buckwalter eds., 2016):

> [E]arly modern experimental philosophy is not a version of contemporary experimental philosophy. Rather, it is one of its historically distant relatives within the family of movements that give pride of place to observation and experiment. There are two salient family resemblances, however. . . . First, . . . an attempt to replace assumptions about . . . philosophical systems . . . with . . . substantial observational and experimental foundations. . . . Second, old and new experimental philosophers share similar attitudes towards speculative, *a priori* reflections.

149 *See generally, e.g.*, Sharp & Otto, *supra* note 139.

150 ROBINSON & DARLEY, *supra* note 54, at 163.

quickly. Most earlier research in experimental jurisprudence focused on lay cognition of crime and criminal law concepts (e.g., causation, blame, punishment), but today's research frequently looks beyond criminal law concepts, including constitutional law, international law, torts, property, contracts, evidence, and legal interpretation.[151]

Moreover, technological developments allow more experimental-jurisprudence research and more sophisticated methods. It has become possible to collect larger and more representative samples and to assess experimental-jurisprudential questions across cultures and languages.[152] Scholars are also increasingly relying on methods beyond psychology surveys, such as corpus linguistics and new tools in natural-language processing.[153]

Finally, there is a new change in the sociology of experimental jurisprudence. Early work was largely categorized by legal theorists as psychology or sociology, but, today, experimental-jurisprudence studies are also conducted by legal philosophers.[154] Moreover, discussion of that data is increasingly embedded within legal-philosophical discourse: where the import of these studies to philosophical inquiry was largely ignored, it is now at least debated.[155]

Thus, the first myth is a half myth. Experimental jurisprudence is not new—but much of what is happening within experimental jurisprudence is.

B. Myth 1: Experimental Jurisprudence Should Study Legal Experts, Not Laypeople

Now we turn to the full myths. The first is that experimental jurisprudence is misguided in its choice of population. Jurisprudence is a field for legal experts, who have acquired legal knowledge. Yet experimental-jurisprudence usually surveys lay populations with no legal expertise.[156]

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151 *See supra* Part II (discussing research on concepts related to torts, property, contracts, and legal interpretation).

152 *See, e.g.*, Spamann et al., *supra* note 84, at 122–23. *See generally* Hannikainen et al., *supra* note 84.

153 *See generally, e.g.*, Nyarko & Sanga, *supra* note 72.

154 *See generally, e.g.*, Knobe & Shapiro, *supra* note 116; Jiménez, *supra* note 49; Anthony Sebok, *Beware of Strangers Bearing Gifts*, J. THINGS THAT WE LIKE (LOTS) (Jan. 14, 2021), https://perma.cc/42M2-FLNY.

155 *See generally, e.g.*, Jiménez, *supra* note 49; Sebok, *supra* note 154.

156 *See, e.g.*, Jiménez, *supra* note 49 (arguing that experimental jurisprudence should focus on judgments of legal officials, not laypeople); Sebok, *supra* note 154 ("This paper suggests the better strategy is to ask better questions about what ordinary people believe the law is. I doubt that this is going to prove [a] winning strategy, since, like so much in life, what ordinary people believe underdetermines the hardest parts of most human practices.").

Is XJur just young, dumb, and broke?[157] Perhaps experimentalists have not yet realized the implications of relying on lay populations and they have no access to expert ones. On this view, the best version of XJur would study only legal experts—lawyers, judges, legislators, legal theorists—but, for now, these populations are difficult and costly to access, so experimentalists have settled for a cheaper alternative. However, this critique misunderstands experimental jurisprudence. Most experimental jurisprudence deliberately studies laypeople.

As an initial observation, consider that there are many experimental-jurisprudence studies of only laypeople, but it is much less common to find studies of only experts.[158] When experimental jurisprudence does recruit expert populations, they are often analyzed as comparisons to lay populations.[159] And in studies that recruit only legal experts, the results of experts are typically analyzed in relation to prior studies about laypeople.[160]

The speculation that XJur recruits lay populations to reduce cost (the "broke researcher" hypothesis) is inconsistent with practice. It is cheaper to recruit a lay population than an expert one, but studies of laypeople are not free. So why do experimental-jurisprudence projects that have successfully recruited legal experts also recruit laypeople? The answer is that experimental jurisprudence is principally concerned with jurisprudential debates that are informed by facts about lay cognition.

Why might facts about lay cognition bear on jurisprudence? Scholars have identified several reasons. One is that laypeople engage with the law (and should engage with the law). As Sommers explains, laypeople serve in legal roles, such as deciders, subjects, and victims.[161] Laypeople serve on juries, they sign contracts, and they are affected by laws. If we seek understanding of the legal concept of consent or reasonableness, part of our inquiry involves studying the potential jurors who apply those concepts. We might also look to the laypeople who believe that they are bound or protected by those concepts in contracts or statutes. Insofar as theories of jurisprudence are partly concerned with what is happening "on the ground," there is reason to look to all the people who create and participate in that law.

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157 *Cf.* KHALID, *Young Dumb & Broke*, *on* AMERICAN TEEN (Right Hand Music Group & RCA Records 2017).

158 *But see generally, e.g.*, Guthrie et al., *supra* note 86.

159 *E.g.*, Tobia, *supra* note 72, at 762.

160 *See generally* Guthrie et al., *supra* note 86 (drawing on dual-process theories of ordinary judgment); Kneer & Bourgeois-Gironde, *supra* note 38 (studying judgments of intent in a population of judges based on paradigms and prior results from studies on laypeople, such as Knobe, *supra* note 38).

161 Sommers, *supra* note 107, at 2302–05.

These concerns reflect another set of important theoretical reasons: rule-of-law values. Theories of legal legitimacy claim that law should be public (to laypeople and experts alike), that it should provide fair notice, and that it should be applied consistently (as applied by lay juries or expert judges). As Macleod argues, these rule-of-law values play an important role in traditional jurisprudence: "Hart and Honoré, for example, appealed to rule of law values" like publicity and fair notice in their jurisprudential analyses.[162]

Another justification comes from law's democratic nature: law should reflect ordinary judgments and concepts to allow citizens a line of democratic input into the legal system.[163] This view is most associated with certain democratic theories of criminal law,[164] but it might supply reasons more broadly. Insofar as these democratic considerations are relevant, they would tend to provide reasons in favor of using ordinary concepts—those accessible to the demos. If that's right, we have to learn what—in fact—those ordinary concepts are.

Consider two important versions of this expertise objection from two very thoughtful, critical responses to XJur. The first is from Professor Anthony Sebok.[165] In a review essay, Sebok responds to a recent experimental-jurisprudence article that develops a theory of legal causation. The authors of that XJur piece, Professors Joshua Knobe and Scott Shapiro, argue that legal causation reflects the ordinary notion of causation (specifically, legal assessments of proximate cause in tort law reflect ordinary causal judgment).[166] To make their case, Knobe and Shapiro draw on empirical research about ordinary causal judgment, arguing that the ordinary concept of cause offers a surprisingly good explanation for the otherwise puzzling proximate-cause caselaw.[167]

In the review, Sebok assesses the article's jurisprudential claims. For example, is it true that Knobe and Shapiro's ordinary "conception of proximate cause . . . fits 'patterns observed in legal judgments'?"[168] In other words, is there actually a match between the ordinary concept of causation and the legal concept? And do Knobe and Shapiro correctly theorize the ordinary and legal concepts? Sebok argues that the "match" claim is "not

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162 Macleod, *supra* note 115, at 982.

163 *See generally* ROBINSON & DARLEY, *supra* note 45; Paul H. Robinson, *Democratizing Criminal Law: Feasibility, Utility, and the Challenge of Social Change*, 111 NW. U. L. REV. 1565 (2017).

164 *See generally* Joshua Kleinfeld, *Manifesto of Democratic Criminal Justice*, 111 NW. U. L. REV. 1367 (2017); ROBINSON & DARLEY, *supra* note 54.

165 Sebok, *supra* note 154.

166 *See generally* Knobe & Shapiro, *supra* note 116.

167 *Id.* at 235.

168 Sebok, *supra* note 154.

wholly convincing."[169] As one example, Sebok argues that the legal concept of proximate cause reflects the "risk rule": "An actor is not subject to tort liability for causing an injury unless the causal connection involves the realization of one of the risks that renders the actor's conduct tortious."[170]

As an example of the risk rule, consider a very well-known hypothetical: *D* negligently provides a loaded gun to a minor, *M*. What risks render *D*'s conduct tortious? Perhaps the risk that *M* might accidentally shoot someone. But suppose instead that *M* drops the gun on *P*'s toe, breaking the toe. The risk rule explains why *D*'s negligent conduct is not a proximate cause of *P*'s injury. Toe-breaking (with the gun's weight) is not a risk that renders handing a gun to a minor tortious.

Sebok argues that Knobe and Shapiro's more specific theory[171] cannot accommodate this feature of legal causation. Whether or not that's true, the important claim for our purposes is that Sebok also seems to assume that the risk rule is not reflected in the ordinary judgment of causation. That fact is taken to count against Knobe and Shapiro's claim that legal cause reflects ordinary cause. The ordinary concept (lacking the risk rule) does not actually match the legal concept.

But it is not yet clear whether and why jurisprudence takes that claim as a fact: Does the ordinary notion of cause fail to reflect the risk rule?[172] This is a jurisprudential question and an empirical one, and one that calls for study of laypeople's assessments of causation. If the answer is yes, then that data counts in favor of certain jurisprudential hypotheses (e.g., that the ordinary notion of cause differs from the legal one). If the answer is no, then that counts in favor of other jurisprudential hypotheses (e.g., that the ordinary notion of cause overlaps with the legal one and that perhaps the best way to understand both is through Knobe and Shapiro's abnormality account).

The Knobe-Shapiro–Sebok debate is framed as one *about* experimental jurisprudence. But it is better understood as a debate within experimental jurisprudence. Each side is clearly engaging in jurisprudence. Specifically, the debate is about existing empirical work (about ordinary concepts) and what jurisprudential claims the data support. The dialectic also contains implicit and explicit empirical claims, including claims about which features characterize the ordinary concept of causation. There are various ways for participants in this debate to make further jurisprudential

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169 *Id.*

170 *Id.*

171 This is a theory of causation and (ab)normality, which Knobe and Shapiro apply in and out of law.

172 In some preliminary pilot studies, I have found that ordinary judgment of causation does not seem to reflect the risk rule.

progress. One of those ways would be to conduct more *empirical* research about the ordinary concept of causation.

A second critique is from Professor Felipe Jiménez, who argues that "folk jurisprudence," the experimental study of lay concepts, is largely unhelpful as evidence in jurisprudential debates.[173] According to Jiménez, jurisprudential conceptual analysis should reflect the intuitions and views of those who contribute to the content of law (such as judges and legislators—and maybe even some scholars). Intuitions of other people might be interesting for some sociological purposes, but they are not useful as data about jurisprudential questions.

This account has an intriguing implication for traditional (nonexperimental) jurisprudence. Most traditional-jurisprudence articles report the intuitions of their legal-philosopher authors. Yet most legal-philosopher authors are not legal officials or contributors to the legal content of their jurisdiction. So Jiménez's proposal suggests that today's experimental jurisprudence is largely looking in the wrong place—but so have decades of traditional jurisprudence. If jurisprudence should be counting only the views of those who contribute content to the law, that banishes some laypeople but also many legal philosophers (it is not clear that it banishes all laypeople, insofar as some laypeople contribute legal content as jurors).

I agree with the broader thrust of Jiménez's argument, but my view is more pluralistic. In a legal system that governs diverse people and whose rules are articulated by lay jurors, judges, and legislators, it is not clear why jurisprudence should favor any single group's intuitions about what is legally consensual, intentional, or reasonable. But I would also extend the critique to traditional jurisprudence; it is an especially strange tradition to privilege the legal intuitions of those who attended five to eight years of philosophy graduate school.

Reflecting on experimental jurisprudence may help provide an answer. Somewhat ironically, insofar as legal philosophers are not contributing content to the law, their conventional role as privileged jurisprudential "intuiters" might be better understood through the lens of the ordinary (rather than the legal expert). The traditional legal philosopher does not have expertise in the inner workings of the legislative process or courtroom procedure. Rather, the traditional legal philosopher is expert in drawing subtle conceptual distinctions and crafting clever test cases and counterexamples. These skills are relevant to the analysis of ordinary concepts. Similarly, traditional legal philosophers less often analyze unique legal concepts, such as forum non conveniens. More often, they analyze

173 *See* Jiménez, *supra* note 49.

legal concepts that overlap with ordinary ones: cause, consent, intent, knowledge, reasonableness, and so on.

This all suggests that traditional legal philosophers have not aimed to stand in the shoes of legal technocrats as authorities on purely technical legal concepts. Rather, it seems, traditional legal philosophers have aimed to stand in the shoes of "us all" as the authority on our concepts—of law, cause, intent, and so on. That perspective (the "us all" perspective) is essential to jurisprudence. Experimental jurisprudence does not propose to banish the legal philosopher; it simply notes that the "us all" perspective is enriched by, in fact, reflecting us all.

C. Myth 2: Experimental Jurisprudence Aims to Model Legal Decision-Making

Experimental jurisprudence frequently points to the jury and, in particular, jury instructions to demonstrate the empirical research's implications.[174] This might give the impression that the research program is primarily focused on modeling that type of decision-making. This is the next myth: experimental jurisprudence aims to model legal decision-making. On this view, experimental-jurisprudence studies are, at their core, "mock jury" studies, aiming to help predict how a juror (or a judge) would decide some specific case.

However, experimental jurisprudence does not generally aim to model legal decision-making in the sense of predicting the outcome of some specific case. To see this, consider that experimental jurisprudence is generally not very good at modeling legal decision-making about a specific set of facts. As a point of comparison, consider the very sophisticated branch of legal psychology that aims to model legal behavior and decision-making, such as experimental studies of the behavioral effects of contract provisions on jury decision-making.[175] In those studies, experimentalists employ rich, multiparagraph vignettes with generous background and legal context.[176] To best model the decision-making of lay jurors, studies would provide important procedural details and example jury instructions.[177]

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174 *See, e.g.*, Sommers, *supra* note 107, at 2302 ("Implications for Jury Instructions"); Macleod *supra* note 115, at 982 ("[C]riminal and tort law's extensive reliance on juries provides further reason for courts to consider ordinary usage."); Sommers, *supra* note 53, at 395 (arguing that experimental jurisprudence illuminates "jury decision-making"); Tobia, *supra* note 79, at 346 (describing practical implications for "jury instructions").

175 *See generally* Wilkinson-Ryan, *supra* note 75.

176 *Id.*

177 *E.g.*, Shari Seidman Diamond, *Illuminations and Shadows from Jury Simulations*, 21 LAW & HUM. BEHAV. 561, 563 (1997) (describing the complexity of jury simulations as compared to case summaries). *See generally* NEIL VIDMAR & VALERIE P. HANS, AMERICAN JURIES: THE VERDICT (2007).

In contrast to those approaches, experimental jurisprudence generally uses deliberately short and abstract scenarios, ones that shed many of the complications of real legal decision-making contexts. Studies often use vignettes of just one paragraph[178] or a series of short questions.[179]

Moreover, experimental jurisprudence typically studies lay judgments arising in a deliberately nonlegal context. Surprisingly few XJur studies begin with the prompt, "Imagine that you are a juror." Nor are participants invited to deliberate with others, as they might on a jury. In fact, participants are not always told that they are evaluating a legal question. Rather, experimental-jurisprudence studies often provide participants with a story about ordinary life, interrogating how the ordinary concept applies.

The idea that XJur focuses on modeling legal decision-making can lead to confusion. That is not its primary aim, and to assume that it is creates the impression that experimental jurisprudence is some form of impoverished legal psychology. This impression also overshadows experimental jurisprudence's true aims. Because experimental jurisprudence is jurisprudence, it is typically entering a more general and more theoretical conversation, not a specific and applied one. For example, in an experimental study of some concept, say reasonableness, the principal experimental-jurisprudential goal is not to predict how jurors will apply the New York jury instruction for negligence to a specific set of facts. Rather, the aim is to gain insight into the ordinary concept of reasonableness: How do we think about what is reasonable? And should those features also characterize the legal concept?

Of course, XJur's studies might contribute evidence to questions about jury decision-making. For example, insofar as a jury instruction relies heavily on the term "reasonable," data about the lay concept of reasonableness may help us predict how jurors will apply an instruction containing that term to specific facts.[180] But there are various complexities of the real-world jury decision that most experimental jurisprudence studies simply do not seek to address; how jurors will apply New York state negligence law to one specific set of facts is an important practical question, but it is not one of legal philosophy.

As another example, consider experimental jurisprudence of legal interpretation. For example, in *An Experimental Guide to Vehicles in the Park*, Professors Noel Struchiner, Hannikainen, and Guilherme Almeida find that lay participants rely on text and purpose in the interpretation of

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178 *See generally, e.g.*, Kneer & Bourgeois-Gironde, *supra* note 38; Stich & Tobia, *supra* note 50.

179 *See generally, e.g.*, Donelson & Hannekainen, *supra* note 58.

180 Some experimental-jurisprudence pieces make this claim. *E.g.*, Sommers, *supra* note 107, at 2303; Tobia, *supra* note 79, at 346.

rules.[181] Those participants received relatively short descriptions of rules in an effort to assess the effects of text and purpose. Some other studies are even more extreme.[182] In *Testing Ordinary Meaning*, I studied how laypeople, law students, and judges used dictionaries and legal corpus-linguistics data to assess the ordinary meaning of terms like "vehicle."[183] Participants received either very brief questions (such as, "Is an airplane a vehicle?") by themselves or a dictionary definition or a legal corpus-linguistics dataset followed by very brief questions.[184]

It would be a mistake to interpret these projects as precise models of actual judging behavior. In the real world, there are many other complicating factors. Judges can look through more than one dictionary, reflect more thoroughly, speak to their clerks, and consider the political valence of a case (which might affect their use of the dictionary).[185] These projects do not present themselves as models of how jurors or judges would likely decide some particular case. Rather, they set out to address broader jurisprudential questions, including: Do text and purpose both affect legal interpretation? And do dictionary definitions reliably measure ordinary meaning? To do this, the studies employ abstract vignettes and materials.

Both types of questions are interesting and important. It is useful to predict how judges will decide specific cases, and various empirical studies within the New Legal Realism focus on that question.[186] But the project of prediction is a different project from that of modern experimental jurisprudence. The other type of question—for example, whether text and purpose both inform interpretation—is a jurisprudential one, relevant to the nature of legal interpretation.

D. Myth 3: Empirical Data Is Either Experimental Jurisprudential or Not

Pick any experimental data—or even any empirical data. Now consider the proposition that such data is either "experimental jurisprudential," or it is not. This proposition seems like it must be true.

However, this too is a myth. Whether a particular study or finding falls within experimental jurisprudence depends on more than the raw data itself. The very same set of empirical data may be experimental jurisprudential in one context but not another. The reason is that the same data might serve a

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181 *See generally* Struchiner et al., *supra* note 72.
182 *See* Struchiner et al., *supra* note 72, at 315.
183 *See generally* Tobia, *supra* note 72.
184 *Id.* at 734.
185 James J. Brudney & Lawrence Baum, *Oasis or Mirage: The Supreme Court's Thirst for Dictionaries in the Rehnquist and Roberts Eras*, 55 WM. & MARY L. REV. 483, 492–93 (2013).
186 *See generally* Thomas J. Miles & Cass R. Sunstein, *The New Legal Realism*, 75 U. CHI. L. REV. 831 (2008).

number of purposes, but data only becomes experimental jurisprudential when it serves as evidence in jurisprudence. Understanding this process—how empirical data can be transformed into experimental jurisprudence—clarifies the approach and how it differs from other forms of empirical legal scholarship.

As an illustration, consider a common type of empirical finding. These are findings related to the so-called ordinary meaning or plain meaning of legal texts.[187] Empiricists conduct experiments to assess how ordinary people understand some term in a legal text in an effort to provide evidence about the term's ordinary meaning.

Recently, one important survey studied the ordinary meaning of the phrase "carries a firearm."[188] That survey was motivated by *Muscarello v. United States*,[189] a case concerning a criminal statute, in which the Supreme Court held that the ordinary meaning of the phrase "carries a firearm" includes conveying a gun in the locked glove compartment of a vehicle.[190]

The experimentalists provided survey participants with the following scenario and question:

> The law requires certain mandatory minimum penalties be imposed on anyone who "during and in relation to any drug trafficking crime, uses or carries a firearm."
>
> . . .
>
> Suppose a person keeps a gun in the locked glove compartment of their car during a drug deal, just in case it was [ ] ever needed, but doesn't ever take it out.
>
> How much do you agree with the following statement:
>
> That person's conduct qualifies for the mandatory minimum penalties.[191]

Participants rated their agreement on a six-point scale, from strongly disagree to strongly agree.[192] Seventy-three percent of participants agreed ("agree strongly," "agree," or "agree somewhat"), while 27% disagreed ("disagree strongly," "disagree," or "disagree somewhat").[193] The authors interpret these results as supporting the holding in *Muscarello*; the ordinary

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187 *E.g.*, Ben-Shahar & Strahilevitz, *supra* note 72, at 1765; *Statutory Interpretation from the Outside*, *supra* note 72, at 262. *See also generally* Klapper et al., *supra* note 72; Macleod, *supra* note 72; Macleod *supra* note 115.

188 *See generally* Klapper et al., *supra* note 72.

189 524 U.S. 125 (1998).

190 *Id.* at 139.

191 Klapper et al., *supra* note 72, at 26 (emphasis omitted).

192 *Id.* at 25.

193 *Id.* at 26.

meaning of "carrying a firearm" includes conveying a gun in the locked glove compartment of a vehicle.[194]

This is an interesting finding with important practical implications. For example, it could help us predict jury decisions in future litigation. But this data is not in itself experimental jurisprudence. To be clear, this is in no way a criticism of that study or its method. As it happens, that paper also presents a second study and analysis that make an important contribution within experimental jurisprudence.[195]

The reason that this finding is not experimental jurisprudential is not because it makes no contact with normative argument. In fact, the authors seem to endorse a normative argument and conclusion. Broadly speaking, the argument is: (1) If most laypeople endorse this statement, *Muscarello* correctly determined the "ordinary meaning" of the language, and *Muscarello* should not have been decided differently; (2) most laypeople endorse this statement; so (3) *Muscarello* correctly determined the ordinary meaning and should not have been decided differently.

The reason that this data is not experimental jurisprudential is that the argument to which it is attached is not jurisprudential. There is no broader theoretical implication drawn from the experimental finding. This finding is not taken to evince something about the concept of ordinary meaning, the nature of legal interpretation, or even the concept of carrying a firearm. Here, the survey of laypeople plays a very different role; it functions as a calculator to compute the answer to the specific legal dispute in *Muscarello*.

As a comparison, imagine a different piece of scholarship analyzing *Muscarello* or another legal-interpretation dispute. The scholar argues that the Court actually relied on the wrong sources of interpretive evidence; rather than relying on *these* dictionaries, the Court should have relied on *those* dictionaries. And relying on those dictionaries would have changed the outcome. This is very different from jurisprudential scholarship grappling with the meaning of legal justice or even "the problematics of interpreting legal texts."[196] Ordinary-meaning surveys can sometimes function as more straightforward applications of experimental methods to legal problems, more aptly described as something like "ordinary meaning calculation." Given certain background assumptions about ordinary meaning, new survey tools can help us compute the answer.[197]

Although experimental jurisprudence often employs surveys, this type of applied surveying is not the paradigmatic form of experimental jurisprudence. A misconception of XJur is that it is the method of surveying

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194 *Id.*
195 *Id.*
196 POSNER, *supra* note 9, at xi.
197 *See generally, e.g.*, Ben-Shahar & Strahilevitz, *supra* note 72.

laypeople to provide answers about how law should be applied. This misconception is the product of several myths. However, a survey of laypeople about some legal topic is not necessarily experimental jurisprudence.

At the same time, a fascinating fact about many of these surveys is that the data they collect might be transformed into experimental-jurisprudential data. Recall the study that employed similar experimental survey questions about ordinary terms, such as, "Is an airplane a vehicle?"[198] The empirical finding is that yes, about 70% of people today say that an airplane is a vehicle. That could be understood as ordinary-meaning calculation by, for example, helping us predict how future courts will interpret contracts referring to vehicles. But that result was elaborated in a very different way. For one, it was embedded within a broader experimental framework. One group of participants answered those questions (Is a car a vehicle? Is a bicycle a vehicle? and so on), another answered the same questions using a dictionary, and the third used legal corpus linguistics.[199] This kind of broader experimental framework is usually a sign of experimental jurisprudence, as opposed to applied surveying.[200]

What makes XJur data "experimental jurisprudential" is that there is a set of jurisprudential questions in the vicinity. Here, the questions include: Do all these methods provide reliable evidence about "ordinary meaning"? And, if they diverge, what does that imply about the concept of ordinary meaning, the prospects of textualist and originalist theories, and the nature of interpretation? The study did find some dramatic divergence among those methods, which supports jurisprudential implications about all these questions.

The point is that this type of data—for example, what do ordinary people think that law *X* means—is not necessarily itself experimental jurisprudential. But it could be. To become experimental jurisprudential, the research must bring the data to bear on jurisprudential questions. Often, that aim is reflected in the experimental design. But sometimes not. There may be some datasets that were not collected with jurisprudential aims in mind but nevertheless have important jurisprudential implications. The very same data could either be experimental jurisprudence—or not.

The same is true of all experimental-jurisprudence studies. Each study could be taken to address only narrow, applied questions:

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198 *See generally* Tobia, *supra* note 72; *see also* Struchiner et al. *supra* note 63.

199 Tobia, *supra* note 72, at 734.

200 But it is not sufficient. For example, here, all of that data might be understood in a merely applied way: We now have more methods (surveys, dictionary use, corpus-linguistics use) to predict some specific court determinations of ordinary meaning or assess some past determinations.

- What do most people believe is the reasonable number of days to return a product ordered online when there is no warranty?[201]
- What do most people say about the key question in *Burrage v. United States*[202] (a case concerning liability under the Controlled Substances Act)?[203] Did death "result from" the drug sold?[204]
- Do most people judge that a given instance of sex-by-deception is consensual?[205]

Any of those findings could be taken in a (merely) applied way, helping us predict how juries might decide this case or evaluate whether that case was decided correctly.

What makes papers experimental jurisprudence is that they develop and grapple with jurisprudential implications of data. Often, the data are analyzed to provide evidence about ordinary and legal concepts—not just evidence about how some particular case was or should be decided. And the papers raise jurisprudential questions, such as: Should this feature of the ordinary concept (that the experiment has discovered) be reflected in the legal criteria? For example, now that we learn that sex-by-deception is compatible with the ordinary notion of consent, should the legal criteria of consent be compatible with sex-by-deception? And does our new understanding of why the ordinary notion of consent may reflect this feature enrich jurisprudential debate about the legal criteria?[206]

The examination of this myth might seem somewhat pedantic. Is this merely a terminological debate over what we call "experimental jurisprudence" and what we call something else?[207] But this categorization is significant: If something is experimental jurisprudence, then it is jurisprudence,[208] and that categorization matters. Insofar as jurisprudence seeks the truth about its theoretical questions, it is worthwhile to correctly identify what is—and what should be—part of that discussion.

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201 *See generally* Tobia, *supra* note 72.
202 571 U.S. 204 (2014).
203 *Id.* at 206.
204 *See generally* Macleod, *supra* note 115.
205 *See generally* Sommers, *supra* note 107.
206 *Id.*
207 Maybe, but the practice of defining new legal-scholarship approaches is a shared and important one. *See generally, e.g.*, Jedediah Britton-Purdy, David Singh Grewal, Amy Kapczynksi & K. Sabeel Rahman, *Building a Law-and-Political-Economy Framework: Beyond the Twentieth-Century Synthesis*, 129 YALE L.J. 1784 (2020); Robert Alexy, *The Nature of Legal Philosophy*, 17 RATIO JURIS 156 (2004); ROBERT COOTER & THOMAS ULEN, LAW AND ECONOMICS (6th ed. 2016).
208 *See infra* Part III.F.

If some set of data could become experimental jurisprudence, that data is a kind of "suspended jurisprudence." Understanding XJur in this way makes clear that legal philosophers should attend to data which have not yet been crystalized in writing as experimental jurisprudence. The next Section takes up this theme.

E. Myth 4: Experimental Jurisprudence Requires Conducting Experiments

This is a myth for two reasons. First, "experimental" jurisprudence is a slight misnomer. The better name would be "empirical jurisprudence," as the movement should include the work of scholars who evaluate nonexperimental empirical data in the service of jurisprudence. For example, scholars have used (empirical, not experimental) corpus-linguistics methods to study the ordinary concept of causation and questions in legal interpretation.[209] As XJur emerges, the big-data-and-law movement also grows.[210] Some of those projects have jurisprudential aims or potential. This Article's considerations about experimental jurisprudence also apply to empirical jurisprudence.

If that were the whole problem with this myth, it would become a true statement with one modification: experimental jurisprudence requires conducting empirical studies. Yet that too is a myth. Even if XJur does not require running experiments, it seems like it must at least require some empirical study or data collection. However, XJur does not always proceed in this way.

For example, consider *Proximate Cause Explained: An Essay in Experimental Jurisprudence*.[211] Despite that article's self-categorization as experimental jurisprudence, readers might be surprised to find that it does not report new experimental data. It is coauthored by one of the founders of modern experimental philosophy and by the modern coiner of the phrase "experimental jurisprudence," and they are undoubtedly right to categorize their project as experimental jurisprudence. But the work presents no new experiments. So what, exactly, makes it experimental jurisprudence?

The answer is that experimental jurisprudence requires data, not data creation. And authoring experimental jurisprudence requires the interrogation of data in service of a jurisprudential inquiry, not the collection of that data. Moreover, whoever originally collected the data need

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209 *See generally, e.g.*, Sytsma et al., *supra* note 90.

210 *See generally* LAW AS DATA: COMPUTATION, TEXT & THE FUTURE OF LEGAL ANALYSIS (Michael A. Livermore & Daniel N. Rockmore eds., 2019); Nyarko & Sanga, *supra* note 72.

211 *See generally* Knobe & Shapiro, *supra* note 116.

not have intended that it would ultimately play some role in experimental jurisprudence.

This last point carries an intriguing implication. If experimental-jurisprudence data need not be collected as experimental-jurisprudence data, it is possible that much of that data already exists. These would be extant data with untapped potential, ripe for jurisprudential analysis. One area full of such studies is the cognitive science of ordinary concepts. An important branch of experimental jurisprudence could analyze these established empirical results from a jurisprudential perspective by asking, for example, what these findings about ordinary concepts suggest about the legal concepts.[212]

The Knobe and Shapiro article described above is a model of this kind of XJur.[213] There is a wealth of extant experimental data about the ordinary concept of causation. The authors analyzed this data with jurisprudential questions in mind, resulting in an important experimental-jurisprudential contribution—even without running any new experiments.

At first, it seems paradoxical that experimental jurisprudence does not require experimentation. But XJur takes jurisprudential questions and addresses them with empirical data (usually experiments). One way to participate is to conduct a new empirical study and evaluate its jurisprudential implications, but another way to participate is to interrogate the jurisprudential import of extant empirical studies.

F. Myth 5: Experimental Jurisprudence is Not Really Jurisprudence

The boundaries of jurisprudence are debated,[214] but the term calls to mind a certain picture. That standard picture seems to diverge sharply from the standard picture of experimental jurisprudence.

- The image of jurisprudence: A group of learned legal experts debate law's deepest theoretical questions in an effort to determine what law should be.
- The image of experimental jurisprudence: Some punk takes a longstanding jurisprudential question about what law should be and claims to settle it by asking laypeople on online platforms like MTurk.[215]

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212 *See generally, e.g.*, Kobick & Knobe, *supra* note 101; Kobick, *supra* note 101.

213 *See generally* Knobe & Shapiro, *supra* note 116; *see also* Diamantis, *supra* note 63; Macleod, *supra* note 92.

214 *See supra* notes 4–8 and accompanying text.

215 MTurk is a platform commonly used in experimental-jurisprudence studies. *See, e.g.*, Adam J. Berinsky, Gregory A. Huber & Gabriel S. Lenz, *Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk*, 20 POL. ANALYSIS 351, 366 (2012); Gabriele Paolacci, Jesse

How can this latter approach possibly be part of jurisprudence?

Debunking the previous myths lays the groundwork to understand the flaw in this image of experimental jurisprudence. Experimental jurisprudence does not recommend "mock juries for jurisprudence," seeking to settle jurisprudential questions with polling—of laypeople or experts (Myth 2). Rather, it grapples with fundamentally jurisprudential questions, typically those making claims about ordinary cognition (Myths 2 and 3), and interrogates them with empirical data that is well suited to addressing those questions (Myth 4).

Given debate about the meaning of jurisprudence, it can be difficult to prove that any project falls within it. But recall some of those common characterizations. Jurisprudence is "mostly synonymous with 'philosophy of law' [and also] the elucidation of legal concepts and normative theory from within the discipline of law."[216] Jurisprudence studies problems like "the meaning of legal justice . . . and the problematics of interpreting legal texts,"[217] and the "essence of the subject . . . involves the analysis of general legal concepts."[218]

Experimental jurisprudence is not merely consistent with these aims of traditional jurisprudence; it is actually at the core of traditional jurisprudence. Jurisprudence has long included the interrogation of ordinary notions corresponding to legal concepts: What are the ordinary notions of cause, consent, intent, knowledge, recklessness, and reasonableness? Traditional jurisprudence notes that these facts about the ordinary notion should inform both descriptive and normative discussions about what legal criteria are and should be.

As a final example, consider a passage from Professors Antony Honoré and John Gardner's introduction to a handbook entry on "Causation in the Law":

> The basic questions dealt with in this entry are: (i) whether and to what extent causation in legal contexts differs from causation outside the law, for example in science or everyday life, and (ii) what are the

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Chandler & Panagiotis G. Ipeirotis, *Running Experiments on Amazon Mechanical Turk*, 5 JUDGMENT & DECISION MAKING 411, 412–13 (2010); *see also* Michael Buhrmester, Tracy Kwang & Samuel D. Gosling, *Amazon's Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data?*, 6 PERSP. ON PSYCH. SCI. 3, 5 (2011). There are some critiques of MTurk. *See, e.g.*, Gabriele Paolacci & Jesse Chandler, *Inside the Turk: Understanding Mechanical Turk as a Participant Pool*, 23 CURRENT DIRECTIONS IN PSYCH. SCI. 184, 187 (2014); Richard N. Landers & Tara S. Behrend, *An Inconvenient Truth: Arbitrary Distinctions Between Organizational, Mechanical Turk, and Other Convenience Samples*, 8 INDUS. & ORGANIZATIONAL PSYCH. 142, 152–53 (2015).

216 *See generally* Solum, *supra* note 8.

217 POSNER, *supra* note 9, at xi.

218 Tur, *supra* note 7, at 152.

> appropriate criteria in law for deciding whether one action or event has caused another.[219]

This description identifies two of the most important questions of jurisprudence:

> (i) What is the relationship between ordinary and legal concepts? In this example, is the legal concept of causation different from the ordinary one?
> (ii) What are the criteria of legal concepts? In this example, what is the appropriate criterion for deciding when something is a legal cause?

These are examples of two of the most central jurisprudential questions from two of the most central figures in modern analytical jurisprudence. Part II's examples of experimental jurisprudence provide direct evidence about question (i) and grapple seriously with question (ii) on the basis of those empirical discoveries.

Sometimes, there is skepticism about what experimental studies of ordinary people can contribute to debates about legal concepts. But I agree with Honoré and Gardner: many central jurisprudential questions, like their question (i) about causation, are both jurisprudential *and* empirical. To best interrogate that question requires studying both ordinary and legal concepts—looking to the law as well as facts from everyday life. It would be a mistake to focus exclusively on ordinary life, language, and concepts, but it would be an equally large mistake to ignore them.

Traditional jurisprudence is replete with claims and questions that are simultaneously jurisprudential and empirical. As such, XJur is not mistakenly *replacing* jurisprudence with social science. Rather, XJur is responding to traditional jurisprudence's call for empirical data, contributing new insights within an entirely traditional jurisprudential conversation. Jurisprudence may be a broad church,[220] but if questions like (i) and (ii) are at its core, scholars should shepherd empirical methods from the balcony to the pulpit.

IV. APPLICATIONS

The preceding Parts have introduced experimental jurisprudence, summarized its projects, and debunked central misconceptions about it. In doing so, this Article has also articulated several broad justifications for the approach, including that experimental jurisprudence can assess intuitions and other empirical claims made by legal theories and raise new challenges

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219 Antony Honoré & John Gardner, *Causation in the Law*, STAN. ENCYCLOPEDIA PHIL. ARCHIVE (Nov. 17, 2010), https://perma.cc/CN6Q-DZ7G.

220 Dickson, *supra* note 11, at 209.

to those theories,[221] clarify the relationship between ordinary and legal concepts,[222] and identify new jurisprudential questions and possibilities.[223]

This Part turns to two more concrete applications, identifying areas in which further XJur work might be particularly useful. The first application concerns the rise of ordinary meaning in legal interpretation, particularly in originalist and textualist legal theory. The second concerns the New Private Law. These serve as a useful pair of illustrations: one associated with public law, one with private law; one focused on interpretation of legal texts, one participating in a broader common law tradition; one debated frequently in the courts, one debated largely in legal-theory circles; but both of tremendous jurisprudential impact and importance. The closer study of these two areas reveals important and diverse ways in which experimental jurisprudence offers unique insights into the most important modern jurisprudential debates.

A. Ordinary Meaning

One of the most significant trends in legal theory—and practice—is the growing importance of ordinary meaning in interpretation.[224] When interpreting legal texts, scholars and courts look to the ordinary meaning or original public meaning of the language.[225] This approach is strongly associated with textualist and originalist theories of statutory[226] and constitutional interpretation,[227] but ordinary meaning also plays a significant

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221 *See, e.g.*, *supra* Part III.D (summarizing a study that suggests that different sources of evidence of ordinary meaning provide systematically different verdicts, raising questions about some theories' conceptions of ordinary meaning).

222 *See supra* Parts II.A.2, II.A.3 (summarizing studies that have discovered previously unknown features of the ordinary concepts of consent and cause, raising new theoretical questions about the relationship between those concepts and their legal counterparts).

223 *See infra* note 303 and accompanying text (summarizing a study on reasonableness that provided evidence of a "hybrid" ordinary concept of reasonableness).

224 *See* BRIAN G. SLOCUM, ORDINARY MEANING: A THEORY OF THE MOST FUNDAMENTAL PRINCIPLE OF LEGAL INTERPRETATION 4 (2015).

225 *See generally* Lawrence B. Solum, The Constraint Principle: Original Meaning and Constitutional Practice (Apr. 3, 2019) (unpublished manuscript) (on file with author). *See also* Victoria Nourse, *Textualism 3.0: Statutory Interpretation After Justice Scalia*, 70 ALA. L. REV. 667, 681 (2019).

226 *See generally* Nourse, *supra* note 225.

227 *See generally* Solum, *supra* note 225.

role within a broad range of other interpretive theories[228] and in the interpretation of other legal texts, including contracts[229] and treaties.[230]

Ordinary meaning's significance varies across legal theories. For example, new textualist theories typically understand a text's communicative content to constrain interpretation and ordinary meaning as a central determinant of communicative content.[231] Pluralistic theories might treat ordinary meaning as one of several interpretive considerations alongside intent, purpose, and even the consequences of a given interpretation.

There are debates about what role ordinary meaning should play in interpretation and what exactly "ordinary meaning" means.[232] But many agree that ordinary meaning is closely connected to empirical facts about how ordinary people understand language.[233] That is, a legal text's ordinary meaning is not necessarily the meaning that its drafters intended it to have or the meaning that would allow the text to achieve the best results. Rather, investigation into a text's ordinary meaning is an investigation into facts about how ordinary people would actually understand the language.

The empirical aspect of ordinary meaning can be traced to the most common justifications for an ordinary-meaning interpretive criterion. There is, of course, great debate about whether and why ordinary meaning should be a legal-interpretive constraint or consideration. But one of the most common justifications invokes rule-of-law values.

These rule-of-law values took center stage in the recent case *Bostock v. Clayton County*,[234] a landmark decision protecting gay and transgender persons from employment discrimination under Title VII.[235] Justice Neil Gorsuch's majority opinion was grounded in a textualist analysis of ordinary meaning, holding that Title VII's prohibition against adverse employment actions taken "because of . . . [an individual's] sex" prohibits

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228 *See generally, e.g.*, SLOCUM, *supra* note 224; Tobia, *supra* note 72.

229 *See generally, e.g.*, Stephen C. Mouritsen, *Contract Interpretation with Corpus Linguistics*, 94 WASH. L. REV. 1337 (2019).

230 *See generally, e.g.*, Brian G. Slocum & Jarrod Wong, *The Vienna Convention and the Ordinary Meaning of International Law*, 46 YALE J. INT'L L. 191 (2021).

231 *See generally, e.g.*, Solum, *supra* note 225.

232 *See generally, e.g.*, Fallon, *supra* note 6.

233 *See generally, e.g.*, Tobia, *supra* note 72; *see also* Randy E. Barnett, *Interpretation and Construction*, 34 HARV. J.L. & PUB. POL'Y 65, 66 (2011) ("It cannot be overstressed that the activity of determining semantic meaning at the time of enactment required by the first proposition is *empirical*, not normative." (emphasis in original) (citing KEITH E. WHITTINGTON, CONSTITUTIONAL INTERPRETATION: TEXTUAL MEANING, ORIGINAL INTENT AND JUDICIAL REVIEW 6 (1999))).

234 140 S. Ct. 1731 (2020).

235 *See generally id.*

adverse employment actions taken against persons for being gay or transgender.[236] Consider Justice Gorsuch's discussion of ordinary public meaning:

> This Court normally interprets a statute in accord with the ordinary public meaning of its terms at the time of its enactment. After all, only the words on the page constitute the law adopted by Congress and approved by the President. If judges could add to, remodel, update, or detract from old statutory terms inspired only by extratextual sources and our own imaginations, we would risk amending statutes outside the legislative process reserved for the people's representatives. And we would deny the people the right to continue relying on the original meaning of the law they have counted on to settle their rights and obligations.[237]

Here, Justice Gorsuch appeals to ordinary meaning as an interpretive criterion that promotes the values of notice and reliance. Interpreting a legal text in line with its ordinary meaning helps ensure that ordinary people can rely on law. Importantly, these rule-of-law justifications reinforce the significance of understanding ordinary meaning empirically. There are facts about what ordinary people would take from statutory language, and interpretation grounded in reliance and fair notice should concern itself with how ordinary people would in fact rely upon or be notified by the legal text.

These rule-of-law justifications are shared among other textualist judges. Consider Justice Brett Kavanaugh's *Bostock* dissent: "Judges adhere to ordinary meaning for two main reasons: rule of law and democratic accountability."[238]

However, a shared commitment to ordinary meaning does not necessarily resolve all interpretive debate.[239] In *Bostock*, Justices Gorsuch and Kavanaugh both interpreted Title VII in line with what they considered to be its ordinary meaning, but Justice Gorsuch wrote for the majority and Justice Kavanaugh in dissent. That disagreement is the subject of scholarly debate.[240] This Section does not propose a resolution to that debate, but it

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236 *Id.* at 1745.

237 *Id.* at 1738.

238 *Id.* at 1825 (Kavanaugh, J., dissenting).

239 *See generally, e.g.*, Tara Leigh Grove, Comment, *Which Textualism?*, 134 HARV. L. REV. 265 (2020); Victoria Nourse & William N. Eskridge, *Textual Gerrymandering; The Eclipse of Republican Government in an Era of Statutory Populism*, 96 N.Y.U. L. REV. 1718 (2021).

240 *See generally, e.g.*, Robin Dembroff, Issa Kohler-Hausmann & Elise Sugarman, *What Taylor Swift and Beyoncé Teach Us About Sex and Causes*, 169 U. PA. L. REV. ONLINE 1 (2020); Anuj Desei, *Text Is Not Enough*, 93 U. COLO. L. REV. 1 (2022); Benjamin Eidelson, *Dimensional Disparate Treatment*, 95 S. CAL. L. REV. (forthcoming 2022); William N. Eskridge Jr., Brian G. Slocum & Stefan Th. Gries, *The Meaning of Sex: Dynamic Words, Novel Applications, and Original*

does use the *Bostock* scholarship as an illustration of what experimental jurisprudence can contribute to jurisprudential study of ordinary meaning.

The key interpretive question in *Bostock* concerned the language of Title VII, which prohibits adverse employment actions taken "because of . . . [an] individual's race, color, religion, sex, or national origin."[241] One plaintiff employee was fired for being gay, another for being transgender. So *Bostock*'s interpretive question was whether each gay and transgender employee was fired "because of . . . [that individual's] sex."[242]

Justice Gorsuch's majority opinion held that yes, each employee was fired "because of sex."[243] The reasoning turned on the interpretation of "because of." Justice Gorsuch reasoned that the ordinary meaning of Title VII's "because of" language reflects a but-for test:

> "[T]he ordinary meaning of 'because of' is 'by reason of' or 'on account of.'" In the language of law, this means that Title VII's "because of" test incorporates the simple and "traditional" standard of but-for causation. That form of causation is established whenever a particular outcome would not have happened "but for" the purported cause. In other words, a but-for test directs us to change one thing at a time and see if the outcome changes. If it does, we have found a but-for cause.[244]

According to Justice Gorsuch, an intuitive application of this test suggests that the gay and transgender employees were fired "because of" their sexes. Consider, for example, a transgender woman employee: a person assigned a male sex at birth[245] who identifies as a woman. An antitransgender employer fires her. Now, "change one thing at a time and see if the outcome changes."[246] Suppose that the employee was instead assigned a female sex at birth and (still) identified as a woman. In this case, the antitransgender employer would not fire her. The antitransgender firing turns entirely on the employee's sex; that is, the employee's sex was a but-for cause of the firing. Thus, firing an individual for being transgender is to fire them "because of" sex.[247]

Public Meaning, 119 MICH. L. REV. 1503 (2021); Grove, *supra* note 239; Andrew Koppelman, Bostock, *LGBT Discrimination, and the Subtractive Moves*, 105 MINN. L. REV. HEADNOTES 1 (2020); Macleod, *supra* note 72; Kevin Tobia & John Mikhail, *Two Types of Empirical Textualism*, 86 BROOK. L. REV. 461 (2021).

241 42 U.S.C. § 2000e-2(a)(1).

242 *Bostock*, 140 S. Ct at 1739.

243 *Id.* at 1741.

244 *Id.* at 1739 (citations omitted) (quoting Univ. of Tex. Sw. Med. Ctr. v. Nassar, 570 U.S. 338, 350 (2013)).

245 The *Bostock* opinions—majority and dissenting—characterize sex as "biological sex." *See id.* at 1739.

246 *Id.*

247 *Id.* at 1741.

Justices Kavanaugh and Samuel Alito wrote separate dissenting opinions. Each agreed with Justice Gorsuch's starting point—a textualist inquiry into the ordinary meaning of Title VII[248]—but disagreed with details of the analysis. Specifically, both Justices Kavanaugh and Alito suggested that the ordinary meaning of Title VII does not prohibit firing a gay or transgender employee. As Justice Alito put it:

> Suppose that, while Title VII was under consideration in Congress, a group of average Americans decided to read the text of the bill with the aim of writing or calling their representatives in Congress and conveying their approval or disapproval. What would these ordinary citizens have taken "discrimination because of sex" to mean? Would they have thought that this language prohibited discrimination because of sexual orientation or gender identity?[249]

Justice Alito assumes that the answer is no. Ordinary citizens would not understand antigay or antitransgender employment actions to be ones taken "because of [the individual employee's] sex."[250]

There are tremendous similarities between the majority and the dissents. All are committed to ordinary meaning, and all justify that approach via rule-of-law values like fair notice and publicity. All are also committed to an empirical conception of ordinary meaning. For each Justice, the key question is what ordinary people would actually understand.

Now, one could proceed by intuition alone, making the best guess about what most ordinary people would say. But those working in experimental jurisprudence have begun to address these empirical questions about ordinary meaning with empirical studies. For example, Macleod has studied how ordinary people today understand language like "because of."[251]

One of Macleod's more recent studies provided participants with the very question in *Bostock*.[252] Participants received a series of questions concerning antigay and antitransgender employers who fired gay or transgender employees. The survey asked: Was the employee fired

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248 *See id.* at 1755 (Alito, J., dissenting); *id.* at 1824 (Kavanaugh, J., dissenting).

249 *Bostock*, 140 S. Ct. at 1767 (Alito, J., dissenting). Here, Justice Alito's remarks are ambiguous between referencing the original public meaning and the public's original expected applications. Most new originalists and new textualists are concerned with original public meaning, which is not limited to original expected applications. As such, this Section interprets Justice Alito's opinion in line with the (more common) modern theory focused on public meaning.

250 *Id.*

251 *See generally* Macleod, *supra* note 115.

252 *See generally* Macleod, *supra* note 72.

"because of his sex?"[253] Macleod found that the majority of participants actually agreed in both cases that firing the gay and transgender employee was firing them because of their sex.[254]

That experiment tests the empirical question raised by Justices Kavanaugh and Alito. Those dissenting opinions suggested that the answer was no—that ordinary people did not understand the language that way, certainly not in 1964 and probably not today.[255] Justice Kavanaugh's dissent notes that there is likely no difference in the ordinary meaning of Title VII between 1964 and today.[256] Macleod's survey suggests that here, the Justices' individual intuitions may not be a perfect guide to ordinary meaning.

A second experimental study provides further support to rebut the empirical assumptions of Justices Kavanaugh and Alito.[257] That second study presented participants with similar scenarios to those used in Macleod's study. It also included two other hypotheticals with a similar structure: Is someone fired for being in an interracial marriage fired "because of his race"? And is someone fired for being pregnant fired "because of her sex"? The sexual-orientation scenario began:

> Mike was an employee at an Italian restaurant. Mike had worked there for ten years. Mike was a gay man, who was married to another man. One day, Mike's boss learned that Mike is gay. Two days later, Mike's boss fired him, saying "I'm sorry Mike, I just don't think having gay employees is good for business."[258]

In one version, participants were presented with a question that mimicked Justices Alito and Kavanaugh's approach. The question for the sexual-orientation case was: "Statement: Mike was fired because of his sex. [Yes or No]."[259] This question also clarified that "sex" referred only to "biological sex."[260]

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253 *Id.* at 19–28.

254 *Id.*

255 The originalist aspect of this interpretation problem raises many more interesting issues, which cannot be addressed here. It is worth noting, however, that some scholarship actually suggests the opposite: "sex" may have had a *broader* meaning in 1964 than today. *See* Eskridge et al., *supra* note 240.

256 *Bostock*, 140 S. Ct. at 1825 (Kavanaugh, J., dissenting).

257 *See generally* Tobia & Mikhail, *supra* note 240.

258 *Id.* at 476.

259 *Id.* at 478.

260 *Id.* at 476 n.74:

> Please read the scenario and tell us whether you agree ("yes") or disagree ("no") with the following statement. For the purpose of this question, "sex" should be understood to mean biological sex, per Merriam-Webster's dictionary: "either of the two major forms of individuals that

The study replicated Macleod's findings. The majority of participants endorsed that antigay and antitransgender firings were because of sex.[261] However, results were more mixed for the other cases. The majority endorsed that anti-interracial marriage and antipregnancy firings were not "because of" race and sex, respectively.[262]

That study also presented other participants with a case following Justice Gorsuch's framing. Do ordinary people agree that sex is a but-for cause of antigay and antitransgender firings? The sexual-orientation scenario under that framework concluded instead with this question:

"Imagine that the above scenario were different in exactly one way: Mike was not a man but was instead a woman named 'Michelle,' who is married to a man. Imagine that everything else about the scenario was the same. Would Michelle still have been fired? [Yes or No]."

Here, participants were overall more inclined to find Title VII discrimination. Across all four cases (sexual orientation, transgender, interracial marriage, and pregnancy), the majority of participants chose no, implicitly identifying the Title VII factor (sex or race) as a but-for cause.[263]

The details of that experiment to illustrate that one function of experiments is to help evaluate empirical claims implicit in legal theory. The experimental evidence supports Justice Gorsuch's assumption: ordinary people understand sex as a but-for cause of sexual-orientation discrimination. The evidence does not so strongly support Justices Kavanaugh and Alito's assumptions: ordinary people do not agree that antigay and antitransgender firings are not firings "because of [the individual's] sex."

However, the studies offer something beyond this contribution. They help clarify a broader jurisprudential point. For example, the authors of the second experimental study argued that these empirical results support the significance of "a distinction between two types of empirical textualism."[264] One is "ordinary criteria" textualism, which is reflected in Justice Kavanaugh and Justice Alito's approach to *Bostock*. That view equates ordinary meaning with ordinary understanding. However, as the experiments suggest, the ordinary understanding of Title VII's language may differ from what Justice Kavanaugh and Justice Alito assume. But Justice Gorsuch's textualism in *Bostock* reflects a different theory, "legal criteria textualism." On that view, textualism combines ordinary

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occur in many species and that are distinguished respectively as female or male especially on the basis of their reproductive organs and structures."

261 *Id.* at 480.

262 Tobia & Mikhail, *supra* note 240, at 280.

263 *Id.*

264 *Id.* at 486.

understanding of statutory terms "with both their previously-established legal meanings and their legal entailments."[265] This is simply a different type of "empirical textualism." And it is one supported by empirical evidence: Justice Gorsuch's assumption about ordinary people's application of a but-for test is supported by the data.

This distinction—between ordinary- and legal-criteria textualism—is a possibility that could be contemplated and elaborated from the armchair, without empirical evidence. But experimental work helps crystallize the significance of the distinction. Ordinary-criteria textualism and legal-criteria textualism are both theories committed to ordinary meaning in legal interpretation, and both make empirical claims about ordinary people's understanding. It is (in theory) possible that these theories could lead to divergent results. And in the *Bostock* case, the two approaches do diverge. That divergence is best illuminated by empirical data.[266]

This legal-theory distinction, supported by experimental study, is also one that could inform broader jurisprudential debates. Recall that textualists often appeal to fair notice and reliance as justifications for an ordinary-meaning approach to interpretation. By demonstrating the possible divergence of ordinary-criteria and legal-criteria textualism, the experimental study can also be seen as one that raises the question about the concept of publicity and other rule-of-law values.

Specifically, does publicity (as a rule-of-law value) require that law reflect ordinary people's understanding of the language in the text? Or does publicity require that legal criteria are applied consistently with ordinary people's understanding of the application of those criteria? Experimental study itself provides no answer to this question, but it helps articulate it.

Surveys are a very attractive tool in ordinary-meaning debates. As courts and commentators continue to interrogate the ordinary meanings of legal texts, it may become even more tempting to outsource legal interpretation to surveys. But experimental jurisprudence avoids such an incautious use of surveys. Experiments will not tell us in simple terms what the law should be. But they can provide insight into the truth of empirical claims made by legal theories. Moreover, experimental methods can make jurisprudential contributions, calling attention to new theoretical distinctions of practical and jurisprudential significance.

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265 *Id.*

266 Specifically, the empirical data suggest that both approaches favor the plaintiffs in *Bostock*. However, the two approaches are not equivalent. For example, Justice Gorsuch's legal-criteria textualism more strongly supports the gay employee. Both approaches strongly support the transgender employee. *Id. But see* Mitchell N. Berman & Guha Krishnamurthi, Bostock *Was Bogus: Textualism, Pluralism, and Title VII*, 97 NOTRE DAME L. REV. 67 (2021)

B. The New Private Law

Like the rise of ordinary meaning, the New Private Law is an influential and impressive movement in modern legal theory.[267] A central theme of the New Private Law is the rejection of reductive, purely instrumental accounts of private law. Professor John Goldberg articulates this vision—a private-law theory that chooses:

> [T]o stick close to everyday practices and to be wary of concepts, categories, or methods that claim for themselves a certain kind of essential validity or primacy. . . . [This view] supposes that reality is complex and that it will not advance the cause of knowledge to assume that one comes to understand reality by stripping away superstructure to get to base. . . . [It] calls for a patient exploration of the many facets of a phenomenon or problem.[268]

Some might see experimental jurisprudence as a reductive force, one in opposition to this vision of the New Private Law. According to that view, experimentalists simply use surveys to compute answers to private-law-theory questions.[269] Part III argued that this picture is a caricature.[270] Experimental jurisprudence does not typically endorse such reductive analysis. To the contrary, XJur work shares the New Private Law's appreciation for law's complexity. XJur does not take psychology (or legal history or economics or moral philosophy) as the discipline with primacy. And it does not take experimentation (or cost-benefit analysis or moral theory) as the only essentially valid tool.

A second central theme of the New Private Law is that it "takes private law concepts and categories seriously."[271] It works to appreciate the nuanced "conceptual structure of the law,"[272] rejecting the realist critique that law's central concepts are "fictions, nonsense."[273] This conceptualism also takes seriously people's ordinary concepts. Central figures in the New Private Law even suggest that legal concepts generally should reflect features of ordinary concepts. As Professors Andrew Gold and Henry Smith put it: "The set of legal concepts benefits from its congruence with relatively simple local forms of conventional morality. . . . Certainly, contract law can

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267 *See generally* THE OXFORD HANDBOOK OF THE NEW PRIVATE LAW, *supra* note 6.

268 John C.P. Goldberg, *Introduction: Pragmatism and Private Law*, 125 HARV. L. REV. 1640, 1650 (2012).

269 *See generally, e.g.*, Ben-Shahar & Strahilevitz, *supra* note 72 (proposing experiments to solve problems of contract interpretation).

270 *See supra* Part III.

271 Andrew Gold, *Introduction*, *in* THE OXFORD HANDBOOK OF THE NEW PRIVATE LAW, *supra* note 6, at xvi.

272 Goldberg, *supra* note 268, at 1652.

273 *Id.*

diverge from the morality of promising, just as legislation can go beyond corrective justice. Nevertheless, the ability to draw on simple local morality is an important starting point."[274]

Experimental jurisprudence agrees. Descriptively, many legal concepts share features of the ordinary concept.[275] This supports the "folk-law thesis."[276] It would be bizarre for law's concepts of good faith, reasonableness, cause, duty, or wrong to be entirely untethered from corresponding ordinary concepts. Some theorists working in experimental jurisprudence also endorse Gold and Smith's normative suggestion that legal concepts benefit from reflecting features of the corresponding ordinary one. Thus, the fact that an ordinary concept has a feature provides a (defeasible) reason that the corresponding legal concept should share that feature.[277]

So, there is common ground between experimental jurisprudence and the New Private Law. Experimental jurisprudence can contribute to the New Private Law a richer set of data and questions for jurisprudential debate. As Part II's experimental studies reveal, ordinary concepts and moral reasoning are not always "simple,"[278] intuitive, or obvious. What the seminar room agrees is "ordinarily wrongful" may not reflect what, in fact, all ordinary people understand to be wrongful.

XJur shares the New Private Law's general commitment to understanding ordinary and legal concepts and the belief that such study is truly complex. For example, in assessing the relationship between contract and promise, there is still much to learn about both (legal) contract and (ordinary) promise. Experimental methods have uncovered important insights about lay intuitions of contract[279] and ordinary promising—many of which are not simple or obvious from the armchair.[280]

Here again, the New Private Law might be skeptical of empirical approaches to legal scholarship, which are often reductive, inspired by legal realism, and focused on predicting how judges really decide cases—how things really work when "getting down to brass tacks."[281] Some empirical and psychological studies support criticism of traditional assumptions of reductive and instrumental approaches. For example, legal psychology can

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274 Andrew S. Gold & Henry E. Smith, *Sizing Up Private Law*, 70 U. TORONTO L.J. 489, 504–05 (2020).

275 *See generally* Tobia, *supra* note 91.

276 See *supra* note 91 and accompanying text.

277 *See, e.g.*, *supra* Part II.

278 Gold & Smith, *supra* note 274, at 505.

279 *See generally, e.g.*, Hoffman & Wilkinson-Ryan, *supra* note 75.

280 *See generally, e.g.*, Vanberg, *supra* note 76; Mischkowski et al., *supra* note 76; Ederer & Stremitzer, *supra* note 76; Stone & Stremitzer, *supra* note 76.

281 Goldberg, *supra* note 268, at 1642. For an example of empiricism and realism, see generally Miles & Sunstein, *supra* note 186.

illuminate behavioral realities that conflict with standard assumptions of law and economics models.[282]

Modern experimental jurisprudence takes a different approach, moving away from the "New Realism,"[283] the old experimental jurisprudence (e.g., testing law's effects),[284] and the psychological literature on heuristics and biases. XJur does not primarily study laypeople as potential jurors with choices to model, biases to correct, and decisions to nudge. Instead—like the New Private Law—XJur sees the study of ordinary concepts as central to legal theory. As the New Private Law puts it, laypeople are not merely jurors, but also "norm articulators . . . often charged with interpreting . . . [what] counts as 'reasonable.'"[285] This observation also supports a reply to Professor Jimenez's suggestion[286] to only count the intuitions of those who contribute to law's content: Ordinary people sometimes contribute to law's content. XJur and the New Private Law both (correctly) understand laypeople not as mere legal objects but as central members of our legal community, poised to contribute meaningfully to law and legal theory.[287]

Experimental jurisprudence and the New Private Law agree "that there is often at least a family resemblance between legal and extralegal concepts and norms that bear on questions of personal interaction"[288] and that the nature of that resemblance is worth exploring. Both tend to reject reductive instrumentalism; they agree that legal concepts should not always reflect ordinary ones. Instead, legal theory should grapple with the complex nature of its concepts, and that grappling process should typically include study of the corresponding and constituent ordinary concepts.

Again, neither the New Private Law nor XJur will simply take the ordinary concepts as constitutive of legal ones. Yet both programs recognize the process of studying ordinary concepts as an essential part of jurisprudence. Consider Professors Goldberg and Benjamin Zipursky's description of their task in *Recognizing Wrongs*:

> We come to the job of explaining the common law somewhat like one trying to explain how the members of a community use their language. The goal is to make explicit the various patterns of thought and conduct that animate this area of the law. If it turns out that many of

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282 For a helpful example, see Tess Wilkinson-Ryan, *Psychology and the New Private Law*, *in* OXFORD HANDBOOK OF THE NEW PRIVATE LAW, *supra* note 6, at 125.

283 *Id.*

284 *See generally* Beutel, *supra* note 1.

285 Goldberg, *supra* note 268, at 1657.

286 *See supra* note 173 and accompanying text.

287 *See id.* at 1656.

288 *Id.*

> the concepts and principles utilized in this area have the same character as, or a character very similar to, those which are utilized in non-legal discourse about how one ought (morally) to conduct oneself—indeed, if it turns out that some of the concepts are identical—that is something to be acknowledged, not hidden from view.[289]

This question—how do the concepts in law compare to the concepts in nonlaw—is essential to the New Private Law. Answering that question requires deep knowledge of law and nonlaw. Of course, we all have some knowledge of ordinary concepts such as reasonableness, causation, consent, intent, duty, and wrongfulness. But even those ordinary notions are complex, calling for study from more than one method. Introspection, thought experimentation, and moral theorizing can provide tremendous insight into those ordinary concepts. So too can empirical methods. And as Part II demonstrates, some empirical insights are unique—inaccessible via individual introspection or thought experimentation.

XJur appears complementary to the New Private Law in part because the New Private Law is admirably honest about the project's commitments, the complexity of law, and the multifaceted inquiry that jurisprudence calls for. Consider again Goldberg and Zipursky:

> Publicity, notice, generality, prospectivity, and the other values that Fuller emphasized seem lacking in a system that relies on judges to articulate rules and principles on a case-by-case basis instead of stating them in canonical form in a code or statute book. . . . There is another way in which tort law achieves a kind of fairness in operation by means apart from Fullerian methods. . . . Part of what it means for tort law to be '"common law" . . . is that the wrongs recognized by tort law are, in their substance, drawn from everyday life rather than constructed de novo by judges in aid of some sort of social engineering project.[290]

XJur is well-positioned to contribute to debates about publicity, notice, and rule-of-law values.[291] But there is one further (and much more general) justification of XJur and its focus on laypeople—one that Goldberg and Zipursky suggest above: experimental jurisprudence is actually called for by one of the most general and longstanding projects within jurisprudence. One implication of this more general justification is that the experimental-jurisprudence approach is not limited to only those jurisprudential debates premised on publicity or democracy or to situations where there is also a relevant jury instruction referring explicitly to reasonableness or consent.

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289 JOHN C.P. GOLDBERG & BENJAMIN C. ZIPURSKY, RECOGNIZING WRONGS 79 (2020).

290 *Id.* at 207–08.

291 *See supra* Part IV.A.

That longstanding project is the determination of our appropriate legal criteria. For example, what are law's criteria of wrongs, causation, reasonableness, and intent? Countless traditional-jurisprudential projects address this type of question, and most often they address it as the New Private Law does, by considering *everyday* life. The foundation of jurisprudence is not "Judge Hercules," but the ordinary person:

> Holmes's . . . understandable disdain for the pedantic moralist unfortunately led him to pose a false dilemma between the pedant and the bad man. Missing from his analysis is the ordinary person, the lawyer who counsels this person, and the judge who understands, applies, and crafts the law imagining that her legal community expects her to take this perspective seriously.[292]

Experimental jurisprudence provides unique insight into exactly this question: How does the ordinary person understand what is consensual, causal, reasonable, or intentional?

Although this Section has focused on the New Private Law, XJur's usefulness extends more broadly, to a range of debates in public- and private-law theory. Most legal theorists—not just those in the New Private Law—recognize the crucial connection between law and ordinary people.

As one more example, consider a seminal article in traditional jurisprudence: Professor Gregory Keating's *Reasonableness and Rationality in Negligence Theory*. Keating argues that tort negligence is—and should be—grounded in reasonable (not rational) risk imposition. Moreover, Keating argues, tort reasonableness is better explained by social-contract theory than by law and economics.[293]

Perhaps surprisingly, that nonempirical work of jurisprudence begins with a reflection about our ordinary cognition: "Latent in our ordinary moral consciousness, and manifest in philosophical reflection, is a distinction between reasonableness and rationality."[294] This appeal to ordinary cognition is not merely rhetorical or motivational. Throughout the article, Keating emphasizes the central role that ordinary concepts play in the jurisprudential argument: "[B]ecause negligence law assigns paramount

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292 GOLDBERG & ZIPURSKY, *supra* note 289, at 109; *see also id.* at 364:

> It is not only judges and lawyers who interact with the law of torts, directly or indirectly. Everyone does. We all need to know what to expect of the persons, businesses, offices, and organizations around us, and we all need to know what is expected of us. That is why the wrongs recognized by courts as torts cannot be the wrongs that Judge Hercules would endorse for being those whose recognition would make the law the best it can be from the perspective of aspirational political or moral theory.

293 Keating, *supra* note 28, at 212–13.

294 *Id.* at 311.

importance to the concept of reasonableness, it receives stronger support from social contract theory than from economics."[295]

Not all of Keating's arguments depend on empirical facts about the ordinary concept of reasonableness, but this first one reflects an important and often overlooked mode of jurisprudence. For legally significant concepts that have an ordinary counterpart, a central question is: What is that ordinary concept? This is a jurisprudential question.

Of course, the legal criteria are not necessarily equivalent to the criteria of the ordinary concept, but traditional jurisprudence understands that there is something critically important in grappling with the features of the corresponding ordinary concept. For example, Keating argues that the ordinary notion of reasonableness supports social-contract theory: "Social contract theory holds that persons must be held 'responsible for their ends.' They must, that is, moderate the demands that they make on social institutions so that those demands fit within the constraints of mutually acceptable principles. This is simply an extension of our ordinary idea of reasonableness."[296]

This argument for the social-contract theory of reasonableness depends upon an empirical claim about the ordinary concept. As it happens, recent experimental-jurisprudence research provides some support for Keating's view. Empirical studies confirm that there is an important distinction between the ordinary notions of reasonableness and rationality, which supports Keating's hypotheses.[297] Moreover, as Keating intuited, the ordinary concept of reasonableness reflects what is socially acceptable,[298] not necessarily what is economically rational or efficient.[299]

In this example, Keating's intuitions about the ordinary concept of reasonableness were impressively accurate. Later experimental-jurisprudence studies lend further support to Keating's (empirical) jurisprudential hypotheses. But it is possible that intuitive, armchair jurisprudence might not capture the whole picture of ordinary cognition in some other cases.

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295 *Id.* at 382.

296 *Id.* at 370; *see also id.*:

> Reasonable people do not have an extravagant sense of the importance of their own preferences and aspirations in comparison with the aspirations of others. Moreover, reasonable people do not believe that their projects warrant the commitment of a disproportionate share of social wealth, and they do not make demands on others that they would be unwilling to honor themselves.

297 *See generally* Grossman et al., *supra* note 79.

298 Keating, *supra* note 28, at 383.

299 *See generally* Jaeger, *supra* note 79 (finding that the legal notion of reasonableness is affected more by what is customary than by what is economically rational).

This possible disconnect—between what a legal expert believes about the ordinary concept and what is true of the ordinary concept—could arise for many reasons. One possibility is that the legal expert just makes a mistake. The expert's intuition about the ordinary concept does not actually reflect the features of the ordinary concept. Perhaps the author did not think sufficiently clearly or employed an unconscious bias in favor of some particular theory. Studying the ordinary concept more robustly—with empirical methods—might help strengthen the theorist's conclusions. As Macleod puts it, "Hart and Honoré, after all, had a sample size of two: Hart and Honoré."[300] Experimental jurisprudence can serve as an empirically grounded method of jurisprudential conceptual analysis.

It could also be that a legal expert, by virtue of all of their expertise and training, has some diminished access to the ordinary concept. When law students encounter a new concept of causation, are their corresponding ordinary concepts entirely unchanged? Or has their concept of causation changed both in and out of law? This is an open and unexplored empirical question. But if legal or philosophical education might sometimes alter one's ordinary concepts, this is another major reason that experimental jurisprudence would play a critical role in linking legal and ordinary concepts.

This process could also interact with the constitution of jurisprudence as a field. If most legal theorists intuit *X*, students who intuit *not X* might (mistakenly) think that they simply don't understand legal theory. As those students eschew legal theory, this preserves the apparent universality of intuition *X* within legal-theory circles. In the words of Professor Robert Cummins: "Those who do not share the intuitions are simply not invited to the games."[301]

Moreover, there are features of a legal concept that laypeople cannot access, but perhaps there also features of the ordinary concept that legal experts cannot perfectly access. Given the classical jurisprudential project of comparing ordinary to legal concepts,[302] this possibility could support a jurisprudential division of conceptual labor; with laypeople as the experts of ordinary concepts and cognition.

A final possibility is that some features of ordinary concepts are not easily accessible by introspection—by anyone, layperson or expert. For example, consider the "hybrid theory" of reasonableness. On that view, reasonableness judgments reflect a hybrid of statistical and prescriptive considerations. It may not be possible to cleanly test such a subtle feature of the concept with the traditional mode of armchair thought

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300 Macleod, *supra* note 115, at 1021.
301 Cummins, *supra* note 29, at 116.
302 *See generally, e.g.*, Honoré & Gardner, *supra* note 219.

experimentation. No matter how hard one reflects, it might be difficult to identify with certainty whether one's own notion of what is reasonable is a hybrid of considerations of the average and ideal. However, it is possible to begin to assess the predictions of that proposed analysis with cognitive science.[303]

A central part of experimental jurisprudence is the study of ordinary language and concepts. And this is precisely because a central part of jurisprudence is such study of ordinary language and concepts. Jurisprudence has long been concerned with "our moral intuitions,"[304] the "intuitions of a community"[305]—not the seminar-room community but rather our social and legal community. As Professor Jeremy Waldron explains, "It is not enough that we have considered what Kant said to Fichte."[306] Intuitions of legal philosophers are to be assessed against what is in fact, "out there, in the world."[307]

CONCLUSION

"Whither jurisprudence? Time will tell."[308] Some offer skeptical and pessimistic prognoses, heralding the "death of jurisprudence."[309]

These reports are greatly exaggerated. Judge Richard Posner described jurisprudence as "the most fundamental, general, and theoretical plane of analysis of the social phenomenon called law."[310] Scholars will (and should) continue to inquire into longstanding, fundamental, general, and theoretical legal questions.

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303 In one study, a large number of participants were assigned to separate groups to evaluate average, ideal, and reasonable quantities, and then the mean ratings were statistically analyzed to assess whether average and ideal ratings both predict reasonableness ratings. *See generally* Tobia, *supra* note 79. This provides some evidence in favor of the proposed account.

304 *E.g.*, Kimberly Kessler Ferzan, *Justifying Self-Defense*, 24 LAW & PHIL. 711, 749 (2005) (explaining the role of intuition in the proposed analysis of self-defense).

305 Joshua Dressler, *Does One Mens Rea Fit All?: Thoughts on Alexander's Unified Conception of Criminal Culpability*, 88 CALIF. L. REV. 955, 961 (2000).

306 Jeremy Waldron, *How to Argue for a Universal Claim*, 30 COLUM. HUM. RTS. L. REV. 305, 313 (1999). Waldron's point concerns the comparison of our (Western) human-rights intuitions against the intuitions of those from other (non-Western) countries. The point relevant to this Article is that it is also assumed that the relevant intuitions are not just those of expert legal theorists—what matters are the views of "people or whole societies." *Id.* at 306.

307 *Id.* at 313 (emphasis omitted).

308 Solum, *supra* note 1, at 2497.

309 *See, e.g.*, Omri Ben-Zvi, *Zombie Jurisprudence*, *in* SEARCHING FOR CONTEMPORARY LEGAL THOUGHT 406, 407 (Justin Desautels-Stein & Christopher Tomlins eds., 2017).

310 POSNER, *supra* note 9, at xi.

So why the pessimism? One jurisprudential eulogy concerns the field's dissolution into other disciplines.[311] Perhaps there is nothing distinctively legal about law's notions of causation, knowledge, and reasonableness. The questions of traditional jurisprudence are scattered into questions of law-as-morality[312] or law-as-economics. Experimental jurisprudence might be seen as another destructively instrumental force, proposing law-as-surveys-of-laypeople.

However, this misunderstands the XJur movement. Rather than imagining jurisprudential questions dissolving into nonjurisprudential questions of moral philosophy or social science, experimental jurisprudence reaffirms these questions' fundamentally jurisprudential nature.

Questions about whether and how legal concepts differ from ordinary ones are both longstanding jurisprudential questions and partly empirical ones. Central legal concepts may share features with their ordinary counterparts. It is possible that not all features of ordinary concepts are known and that not all features are discoverable by introspection or armchair thought experimentation. Empirical methods contribute unique data about ordinary language and concepts that speak to these central questions of jurisprudence. The XJur program does not assume that law should simply adopt the ordinary concept, but understanding the ordinary features—whether by thought experimentation or modern experimentation—raises important questions and is a central part of the analysis of legal concepts. Experimental jurisprudence thereby reopens a range of fascinating jurisprudential questions about law and its concepts.[313] Moreover, it provides new tools to address these questions. Experiments have revealed new, subtle, and surprising conceptual features, all of which call for further theoretical analysis.

While experimental jurisprudence offers new methods, it also invites analysis from those who do not themselves conduct empirical studies. This is one lesson of the debunked myths: to participate, one need not run experiments or even collect original data. Empirical data is a prerequisite, but there is already an abundance of data ripe for experimental-jurisprudential analysis. The cognitive science of ordinary language and concepts is full of such data.[314] Those data are "suspended experimental

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311 Ben-Zvi, *supra* note 309, at 406 ("There is nothing distinctively 'legal' about legal norms.").

312 *Id.*

313 Perhaps legal concepts share many features of the corresponding ordinary ones, or perhaps they are very distinctive. The truth, I would bet, is that legal concepts most often reflect a mixture of features—some drawn from corresponding ordinary concepts and others that are unique. But that remains an open empirical question. And the place to start is with experimental discoveries of the features of these concepts.

314 *See supra* notes 53–133 and accompanying text.

jurisprudence," just waiting to be incorporated into experimental jurisprudence with the addition of thoughtful theoretical analysis. For jurisprudence theorists concerned with our intuitions, empirical work in cognitive science is an essential resource.

This Article has argued that experimental jurisprudence is not a social-scientific replacement of jurisprudence. Rather, it is a form of jurisprudence. Traditional jurisprudence has always contained a central empirical program concerned with law's relation to ordinary people, language, and concepts. Justifications for that traditional project also justify the experimental approach. It is the opposing view—that jurisprudence has nothing to learn from careful study of ordinary language and concepts—that reflects a dramatic break from tradition.

Whither experimental jurisprudence? To the same place as jurisprudence: in search of increasingly sophisticated answers to our fundamental legal questions.