preview

Experimental Jurisprudence

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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 chapter elaborates on and defends experimental jurisprudence. Experimental jurisprudence, appropriately understood, is not only consistent with traditional jurisprudence; it is an essential branch of it.

KEYWORDS
experimental jurisprudence, jurisprudence, legal philosophy, legal theory, methodology

DISCLAIMER
This article is an adaptation of Tobia K., *Experimental Jurisprudence*, in «University of Chicago Law Review», 89, 2022, 735-802, available on https://lawreview.uchicago.edu/publication/experimental-jurisprudence.

CITATION
Tobia K. 2023. *Experimental Jurisprudence*, in Brigaglia M., Roversi C. (eds.), *Legal Reasoning and Cognitive Science: Topics and Perspectives*, «Diritto & Questioni pubbliche», Special Publication, August 2023, forthcoming. (Preview published online on 07.08.2023)

DIRITTO & QUESTIONI PUBBLICHE / RECOGNISE
Legal Reasoning and Cognitive Science: Topics and Perspectives
Special Publication / August, 2023 (preview) pp. 1-36

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1. *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. But it leads to surprising implications for the nature of jurisprudence and the research that it calls for.

This Article introduces experimental jurisprudence (also known as "XJur"), proposes a framework to understand its contributions[2], and finally 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"[3]. 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.

The meaning of "jurisprudence" is itself highly controversial[4]. 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»[5].
- 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»[6].
- The «essence of the subject [...] involves the analysis of general legal concepts»[7].

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[1] The term "experimental jurisprudence" nods to "experimental philosophy," the related experimental approach to questions in philosophy. See KNOBE & NICHOLS 2008, 3; see also STICH & TOBIA 2016, 5 (explaining different versions and goals of experimental philosophy). One of the first modern mention of "experimental jurisprudence" is in SOLUM 2014, 2465 n.5 (2014) (first citing MIKHAIL 2011 and then citing BILZ 2012. Although new, the movement builds on important theoretical work in naturalizing jurisprudence (see generally, e.g., LEITER 2007) and the role of social science in legal philosophy (see generally, e.g., SCHAUER 2020). The term "experimental jurisprudence" had been used fifty years ago, in a very different way. See BEUTEL 1971, 409 (describing an experimental-jurisprudence approach that required «[s]ocial [e]ngineering in [g]overnment»).

[2] See below, § 1, 2.

[3] See below, §§ 3.1, 3.2 On ordinary meaning, see generally FALLON 2015. On the New Private Law, see generally GOLD et al. 2020.

[4] See generally TUR 1978. See also SCHAUER 2020, 95 fn.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».

[5] SOLUM 2018.

[6] POSNER 1990.

[7] TUR 1978, 152.

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"[8]. It is concerned with descriptive questions about legal concepts and interpretation as well as normative questions about what law should be[9]. Jurisprudence approaches these questions from a broadly theoretical perspective, but it is not committed to a particular methodology[10].

Despite this inclusivity and breadth, if forced to identify the core of modern jurisprudence, some might point to analytical jurisprudence[11]. A central project of analytical jurisprudence is the examination of legal concepts, including the law itself[12], causation[13], reasonableness[14], punishment[15], and property[16]. 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[17]. Despite some skepticism about conceptual analysis, it remains central to jurisprudence. As Alex Langlinais and Professor Brian Leiter put it, «[i]n many areas of philosophy, doubts about [...] conceptual and linguistic analysis [...] have become common [...] but not so in legal philosophy»[18].

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[19]. One's intuitions about these test cases are taken to provide evidence about whether the proposed analysis is successful[20].

As an example, consider the legal concept of reasonableness. This concept is central to legal determinations such as tort negligence[21], open contract price terms[22], and the line between murder and manslaughter[23]. The term "reasonable" appears in over one-third of modern published judicial decisions[24]. So what are the legal criteria of what is reasonable? Jurisprudential analysis might begin with a proposed criterion before reflecting on test cases to intuitively assess the success of the proposed criterion[25].

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

8 DICKSON 2015; see also PRIEL 2019.
9 See generally WEST 2011.
10 DICKSON 2015, 209; SCHAUER 2020, 95 s.
11 TUR 1978, 152.
12 HART 1994.
13 See generally HART & HONORÉ 1985.
14 See generally GARDNER 2015.
15 See FLETCHER 1998.
16 See AUSTIN 1869. See generally COHEN 1954.
17 See, e.g., BIX 1995; see also RAPPAPORT 2014.
18 LANGLINAIS & LEITER 2016, 677.
19 LANGLINAIS & LEITER 2016, 677.
20 LEITER 2003, 43 s. (explaining that jurisprudence «relies on two central argumentative devices—analyses of concepts and appeals to intuition»).
21 *Restatement (Third) of Torts: Liability for Physical and Emotional Harm* § 3 (*Am. L. Inst.* 2005).
22 *U.C.C.* § 2-305 (*Am. L. Inst. & Unif. L. Comm'n* 2020).
23 *Model Penal Code* § 210.3(1)(b) (*Am. L. Inst.* 1980).
24 *Historical Trends*, *Caselaw Access Project*, https://case.law/trends/?q=reasonable.
25 E.g., FLETCHER 1985, 949 s.; see also KEATING 1996, 311.

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[26].

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). 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[27], the criminality of Professor Lon Fuller's Speluncean Explorers[28], excuses for Professor Sandy Kadish's Mr. Fact and Mr. Law[29], and the meaning of rules like Professor Frederick Schauer's "no vehicles in the park"[30] or Fuller's «[i]t shall be a misdemeanor [...] to sleep in any railway station»[31].

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»[32].

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»[33]. Nagel offers another solution: assess whether the «source of the intuition has been misidentified»[34]. These methodological proposals—to assess whether intuitions are shared among philosopher colleagues or other persons, to grapple with

[26] 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» (CUMMINS 1998, 116). The "shared" intuition takes on increasing strength as those with minority views leave the debate.
[27] HOLMES 1897, 459.
[28] See generally FULLER 1949.
[29] PAULSEN & KADISH 1962.
[30] See SCHAUER 2008, 1110 s.
[31] FULLER 1958, 664.
[32] NAGEL 1979, x.
[33] HURD 1996, 143.
[34] NAGEL 1979, x.

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 following experimental study about intent[35]. 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?[36] 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.[37] 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[38]. It will produce a moderate environmental impact; specifically, it will disturb some animals in the construction zone[39]. The mayor states that he does not "care at all about the environment" and proceeds with the program[40]. 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[41]. 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?[42]

This study found that, perhaps surprisingly, intuitions about intentionality are sensitive to outcome severity[43]. Even though the mayor expresses the same attitude in both scenarios, participants assess his mental state differently[44]. They more strongly agreed that the harm was produced "intentionally" in the severe case[45].

This result informs conceptual analysis[46]. For example, we can consider two different accounts of intentional action: one in which 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

[35] See generally KNEER & BOURGEOIS-GIRONDE 2017; KNOBE 2003; below, § 2.
[36] KNEER & BOURGEOIS-GIRONDE 2017, 143 s.
[37] KNEER & BOURGEOIS-GIRONDE 2017,143.
[38] KNEER & BOURGEOIS-GIRONDE 2017,143.
[39] KNEER & BOURGEOIS-GIRONDE 2017,143.
[40] KNEER & BOURGEOIS-GIRONDE 2017,143.
[41] KNEER & BOURGEOIS-GIRONDE 2017, 143.
[42] KNEER & BOURGEOIS-GIRONDE 2017,143.
[43] KNEER, BOURGEOIS-GIRONDE 2017,143.
[44] KNEER & BOURGEOIS-GIRONDE 2017,143.
[45] KNEER & BOURGEOIS-GIRONDE 2017,143.
[46] 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 look primarily to the judgments of "legal officials" (JIMÉNEZ 2021). 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 2017, 143.

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[47].

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 subtle patterns of judgment, including ones that are not obvious or even introspectively accessible to an individual legal theorist[48].

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 2 details some examples of recent experimental jurisprudence, proposing a framework to unify these diverse projects. Part 3 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.

2. *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[49]. This Part highlights experimental-jurisprudence studies across several areas: studies of mental states (including knowledge, recklessness, and intent),

[47] In experimental philosophy, the "negative" program has focused on these types of debunking arguments. See, e.g., ALEXANDER et al. 2010, 298 Fn. 2. See generally STICH & TOBIA 2016, 5.

[48] 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.

[49] For other introductions to the field of experimental jurisprudence, see generally MAGEN & PROCHOWNIK, https://zrsweb.zrs.rub.de/institut/clbc/legal-x-phi-bibliography; STROHMAIER 2017; PROCHOWNIK 2021; SOMMERS 2021.

consent, causation, and law itself. But experimental jurisprudence has also studied criminal responsibility and punishment[50], blame[51], justice[52], human rights[53], law and morality[54], the internal point of view[55], abstract versus concrete legal principles[56], state paternalism[57], nationality[58], identity and the self[59], free speech[60], custody decisions[61], happiness[62], lying[63], outcome severity[64], attempts[65], harm[66], liability[67], interpretation[68], evidence[69], settlement[70], contract[71], promise[72], ownership[73], disability[74], reasonableness[75], the balancing tests[76], and legal rules[77].

This research has focused largely on lay judgment, but some of it has studied populations with legal training, including law students and judges[78]. 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

[50] See generally ALICKE 1992; DARLEY et al. 2000; CARLSMITH et al. 2002; BILZ & DARLEY 2004; DARLEY 2009; CUSHMAN 2008; CUSHMAN 2011; DARLEY 2010; NADELHOFFER et al. 2013; CUSHMAN 2015; BILZ 2016; BREGANT et al. 2016; NAHMIAS & AHARONI 2018; PROCHOWNIK 2017; PROCHOWNIK & UNTERHUBER 2018; KNEER & MACHERY 2019; BAUER & POAMA 2020; DUNLEA & HEIPHETZ 2020; DUNLEA & HEIPHETZ 2021a; DUNLEA & HEIPHETZ 2021b; MARTIN & HEIPHETZ 2021; ROBINSON & DARLEY 1995; ROBINSON 2008; NADELHOFFER 2013.

[51] See generally ALICKE, &DAVIS 1989; ALICKE 2000; SOLAN 2003; PROCHOWNIK et al. 2021; NADLER & MCDONNELL 2012.

[52] See generally DARLEY 2001; DARLEY & PITTMAN 2003; VILLANI et al. 2021.

[53] See generally MIKHAIL 2012.

[54] See generally DONELSON & HANNIKAINEN 2020; FLANAGAN & HANNIKAINEN 2020; HUANG 2019; HUANG 2013; HUANG 2016.

[55] See generally HOEFT 2019; ROVERSI et al. 2022.

[56] See generally BYSTRANOWSKI et al. 2021; STRUCHINER et al. 2020b.

[57] See generally HANNIKAINEN et al. 2017.

[58] See generally HUSSAK & CIMPIAN 2019.

[59] See generally BARTELS & RIPS 2010; EARP et al. 2019; MOLOUKI et al. 2017; MOLOUKI & BARTELS 2017; NEWMAN et al. 2014; STROHMINGER & NICHOLS 2014; TOBIA 2015; TOBIA 2016; STROHMINGER & NICHOLS 2015; MOTT 2018, 243; DUNLEA et al. 2022; SHOEMAKER & TOBIA 2023; DIAMANTIS 2019; DIAMANTIS 2022.

[60] See generally DE KEERSMAECKER et al. 2021.

[61] See generally COSTA et al. 2019.

[62] See generally PHILLIPS 2017; KNEER & HAYBRON (mns); BRONSTEEN et al.(forthcoming).

[63] See generally VIEBAHN et al. 2020; WIEGMANN & MEIBAUER 2019.

[64] See generally KNEER & BOURGEOIS-GIRONDE 2017; RACHLINSKI et al. 2013; KNEER (forthcoming).

[65] See generally NADELHOFFER 2012.

[66] See generally KUGLER 2019.

[67] See generally SANDERS et al. 2014.

[68] See generally SOLAN et al. 2008; GINTHER et al. 2014; BEN-SHAHAR & STRAHILEVITZ 2017; BREGANT et al. 2019; STRUCHINER et al. 2020a; TOBIA 2020; KLAPPER et al. (mns); MACLEOD 2022; TOBIA et al. 2022a; TOBIA, SLOCUM & NOURSE 2022b; NYARKO & SANGA 2022.

[69] See generally BILZ 2012; SOOD 2015; BANDES & SALERNO 2014; GLÖCKNER & ENGEL 2013a.

[70] See generally KOROBKIN & GUTHRIE 1997; BREGANT et al. 2022; BRONSTEEN et al. 2008.

[71] See generally WILKINSON-RYAN 2010; WILKINSON-RYAN & BARON 2009; HOFFMAN & WILKINSON-RYAN 2013; WILKINSON-RYAN & HOFFMAN 2015; KAWASHIMA 1974; WILKINSON-RYAN 2017; FURTH-MATZKIN & SOMMERS 2020.

[72] See generally VANBERG 2008; CHARNESS & DUFWENBERG 2010; WILKINSON-RYAN 2012; EDERER & STREMITZER 2018; EDERER & STREMITZER 2017; MISCHKOWSKI et al. 2019; STONE & STREMITZER 2020.

[73] See generally NANCEKIVELL et al. 2019; NANCEKIVELL et al. 2016; FRIEDMAN et al. 2018; KANNGIESSER & HOOD 2014; FRIEDMAN et. al 2013; NANCEKIVELL et al. 2013; DESCIOLI et al. 2017; ECHELBARGER et al. 2021.

[74] See generally DORFMAN 2021; DORFMAN 2020.

[75] See generally TOBIA 2018a; GROSSMAN et al. 2020; JAEGER 2021; SPRUILL & LEWIS 2022. Experimental work also suggests that ordinary people overestimate the cognitive skills that people possess. See generally RACHLINSKI 2003; KNEER & HAYBRON (mns).

[76] See generally ENGEL & RAHAL (unpublished).

[77] See generally STRUCHINER et al. 2020a; TOBIA et al. 2022a.

[78] TOBIA 2020, 762. See also generally TOBIA et al. 2022a; KNEER & BOURGEOIS-GIRONDE 2017; SPAMANN & KLÖHN 2016; KLERMAN & SPAMANN (unpublished).

outside the United States—for example, by researchers in Brazil, Spain, Lithuania and Germany[79]. Recent studies have also emphasized the importance of cross-cultural samples, employing cross-cultural and cross-linguistic studies[80].

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[81], legal heuristics and biases[82], motivated reasoning[83], experimental bioethics[84], experimental longtermism[85], and research in law and corpus linguistics[86].

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. 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"[87]. 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

[79] See, e.g., STRUCHINER et al. 2020a; DRANSEIKA et al. 2020; KNEER & BOURGEOIS-GIRONDE 2017.
[80] See generally HANNIKAINEN et al. 2021; SPAMANN et al. 2021; LIU et al. 2021.
[81] See generally RACHLINSKI 2011.
[82] See generally GUTHRIE et al. 2002; GUTHRIE et al. 2007; HARLEY 2007; RACHLINSKI et al. 2009; RACHLINSKI et al. 2011; RACHLINSKI 2000; WISTRICH et al. 2015; LIDÉN et al. 2018a; LIDÉN et al. 2018b; WINTER 2020; GLÖCKNER & ENGEL 2013b; MELNIKOFF & STROHMINGER 2020.
[83] See generally KAHAN et al. 2016.
[84] See generally EARP et al. 2020a; EARP et al. 2020b; MIHAILOV et al. 2021.
[85] See generally MARTÍNEZ & WINTER 2022.
[86] See generally MAZZI 2014; SYTSMA et al. 2019; STUBBS 1996; LEE & MOURITSEN 2018.
[87] TOBIA 2021. Professors Steve Guglielmo, Andrew Monroe and Bertram Malle propose that folk psychology may also be at the heart of morality. See GUGLIELMO, et al. 2009.

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, 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.

2.1. *Significant Examples*

2.1.1. *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[88].

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[89].

They conducted an fMRI study involving a "contraband scenario"[90]. Participants evaluated different scenarios in which they could carry a suitcase—which might have contraband in it—through a security checkpoint[91]. 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)[92].

The study found that participants' evaluations of the two states (knowledge, recklessness) differed and were associated with different brain regions[93]. Moreover, the fMRI data predicted whether participants faced a knowledge or recklessness scenario[94]. The researchers took this as evidence that the legal concepts are, in part, running parallel to an ordinary distinction[95]. 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[96] and intent[97]. As one example, Markus Kneer and colleagues have found that ordinary people are sometimes sensitive to the

[88] See generally ROBINSON & DARLEY 1995; MALLE & NELSON 2003; NADELHOFFE 2006; NADELHOFFER & NAHMIAS 2011; MUELLER et al. 2012; MACLEOD 2016; KIRFEL & HANNIKAINEN 2022; KNEER & BOURGEOIS-GIRONDE 2017; GINTHER et al. 2014.

[89] VILARES et al. 2017.

[90] VILARES et al. 2017, 3223.

[91] VILARES et al. 2017, 3223.

[92] VILARES et al. 2017, 3223.

[93] VILARES et al. 2017, 3224.

[94] VILARES et al. 2017, 3224.

[95] VILARES et al. 2017,3226.

[96] See generally ROSE et al. 2019; MACHERY 2017.

severity of a side effect when judging whether it was produced intentionally[98]. Recall this Article's earliest hypothetical about life-saving negligence[99]. The company aimed to 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[100]. 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[101], while others have raised considerations in favor of yes[102]. 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.

2.1.2. *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»[103]. 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[104]. In one of Sommers's experimental 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[105]. 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]»[106]. Despite deception regarding a very important fact (the man's marital status), most people attribute consent[107].

97 See generally MALLE & NELSON, 2003; NADELHOFFER 2005; NADELHOFFER 2006; LEVINE et al. 2018; MIKHAIL 2009; KOBICK & KNOBE 2009; KOBICK, 2010; PROCHOWNIK et al. 2020; SHEN et al. 2011.
98 See generally KNEER (mns); KNEER et al. (mns).
99 See above, § 1.
100 See generally KNEER & BOURGEOIS-GIRONDE 2017. Cf. generally KNOBE 2003.
101 See, e.g., KNEER & BOURGEOIS-GIRONDE 2017, 140.
102 See, e.g., TOBIA (mns), 68.
103 SOMMERS 2020.
104 SOMMERS 2020. See also generally DEMAREE-COTTON & SOMMERS 2022; SOMMERS & BOHNS 2019; WILKINSON-RYAN 2014; ROBINSON & DARLEY 1995. Empirical work suggests that people are afraid to decline police officers' requests and feel pressure to consent to searches. See generally, e.g., NADLER & TROUT 2012.
105 SOMMERS 2020, 2252.
106 SOMMERS 2020.
107 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". SOMMERS 2020, 2323.

Given the crucial role that consent plays across tort, criminal, and contract law, these findings raise broad questions[108]. 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[109]. 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?

2.1.3. *Causation*

As a third example, turn to experimental jurisprudence of causation. Jurisprudence has long studied «the plain man's notions of causation»[110]. Experimental jurisprudence makes new progress on that traditional inquiry[111].

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[112]. 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[113]. 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 age, and a scenario asking whether someone was assaulted "because of" his religion[114].

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[115].

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.

[108] HURD 1996, 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»).

[109] SOMMERS 2020, 2301.

[110] HART & HONORÉ 1985 1.

[111] See generally SPELLMAN 1997; GREENE & DARLEY 1998; SOLAN & DARLEY 2001; PRENTICE & KOEHLER 2003; LAGNADO & CHANNON 2008; HITCHCOCK & KNOBE 2009; SPELLMAN & HOLLAND 2010; ALICKE et al. 2011; KOMINSKY et al. 2015; HENNE et al. 2017; MACLEOD 2019; KIRFEL & LAGNADO 2021; LAGNADO et al. GERSTENBERG 2017; WILLEMSEN & KIRFEL 2019; GÜVER & KNEER 2022.

[112] See KNOBE & SHAPIRO 2021, 235.

[113] See generally MACLEOD 2019.

[114] MACLEOD 2019, 995.

[115] MACLEOD 2019, 996.

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[116]. These findings cohere with recent cognitive-scientific findings that ordinary judgments of causation are influenced by both necessity and sufficiency[117].

2.1.4. *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[118].

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 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[119]. A recent cross-cultural collaboration has replicated the results from this study across eleven different countries[120].

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?

2.2. *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.

[116] MACLEOD 2019, 999 f.

[117] Recent cognitive science has also highlighted another significant factor in ordinary judgments of causation: (ab)normality. See generally KNOBE & SHAPIRO 2021; SUMMERS 2018; SOLAN & DARLEY 2001.

[118] DONELSON & HANNIKAINEN 2020, 10.

[119] DONELSON & HANNIKAINEN 2020, 18.

[120] HANNIKAINEN et al. 2021, 10.

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 predicting how judges or juries will decide cases. 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[121]. 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[122].

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 parole evidence rule, insofar as it has no ordinary-language counterpart[123]. 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, these ordinary concepts are the most valuable to study.

[121] See generally MATSUMURA 2014; TOOMEY 2022.

[122] A Westlaw search, across all state and federal jurisdictions, returned ten cases.

[123] 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.

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 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[124].

One example is Macleod's important work on causation[125]. 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[126]. Those experiments study judgments about consent and also whether a person "willingly" acted or gave "permission"[127].

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").

3. *Applications*

The preceding Parts have introduced experimental jurisprudence and summarized some of its projects. 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.

3.1. *Ordinary meaning*

One of the most significant trends in legal theory—and practice—is the growing importance of ordinary meaning in interpretation.[128] When interpreting legal texts, scholars and courts look to the ordinary meaning or original public meaning of the language[129]. This approach is strongly associated with textualist and originalist theories of statutory[130] and constitutional interpretation[131], but ordinary meaning also plays a significant role within a broad range of other interpretive theories[132] and in the interpretation of other legal texts, including contracts[133] and treaties[134].

[124] See generally TOBIA 2020.
[125] See generally MACLEOD 2019.
[126] See generally, e.g., SOMMERS 2020.
[127] SOMMERS 2020.
[128] See SLOCUM 2015, 4.
[129] See generally SOLUM 2019 (mns); see also NOURSE 2019, 681.
[130] See generally NOURSE 2019.
[131] See generally SOLUM 2019 (mns).
[132] See generally, e.g., SLOCUM 2015; TOBIA 2020.
[133] See generally, e.g., MOURITSEN 2019.

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[135]. 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[136]. But many agree that ordinary meaning is closely connected to empirical facts about how ordinary people understand language[137]. 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*[138], a landmark decision protecting gay and transgender persons from employment discrimination under Title VII[139]. 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 adverse employment actions taken against persons for being gay or transgender[140]. 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»[141].

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»[142].

[134] See generally, e.g., SLOCUM & WONG 2021.
[135] See generally, e.g., SOLUM 2019 (mns).
[136] See generally, e.g., FALLON 2015.
[137] See generally, *e.g.*, TOBIA 2020. See also BARNETT 2011, 66: «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 WHITTINGTON 1999, 6).
[138] 140 S. Ct. 1731 (2020).
[139] See generally *ibid.*
[140] *Ibid.*, 1745.
[141] *Ibid.*, 1738.
[142] *Ibid.*, 1825 (Kavanaugh, J., dissenting).

However, a shared commitment to ordinary meaning does not necessarily resolve all interpretive debate[143]. 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[144]. This Section does not propose a resolution to that debate, but it 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»[145]. 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»[146].

Justice Gorsuch's majority opinion held that yes, each employee was fired "because of sex"[147]. 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»[148].

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[149] who identifies as a woman. An antitransgender employer fires her. Now, «change one thing at a time and see if the outcome changes»[150]. 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[151].

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[152]—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

[143] See generally, e.g., GROVE 2020; NOURSE & ESKRIDGE 2021.

[144] See generally, e.g., DEMBROFF et al. 2020; DESEI 2022; EIDELSON 2022; ESKRIDGE et al. 2021; GROVE 2020; KOPPELMAN 2020; MACLEOD 2022; TOBIA & MIKHAIL 2021b.

[145] 42 U.S.C. § 2000e-2(a)(1).

[146] *Bostock*, 140 S. Ct, 1739.

[147] *Ibid.*, 1741.

[148] *Ibid.*, 1739 (citations omitted) (quoting Univ. of Tex. Sw. Med. Ctr. v. Nassar, 570 U.S. 338, 350 (2013)).

[149] The *Bostock* opinions—majority and dissenting—characterize sex as "biological sex". *See ibid.*,1739.

[150] *Ibid.*, 1739.

[151] *Ibid.*, 1741.

[152] See *ibid.*, 1755 (Alito, J., dissenting); *ibid.*, 1824 (Kavanaugh, J., dissenting).

"discrimination because of sex" to mean? Would they have thought that this language prohibited discrimination because of sexual orientation or gender identity?»[153].

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»[154].

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"[155].

One of Macleod's more recent studies provided participants with the very question in *Bostock*[156]. Participants received a series of questions concerning antigay and antitransgender employers who fired gay or transgender employees. The survey asked: Was the employee fired "because of his sex?"[157] 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[158].

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[159]. Justice Kavanaugh's dissent notes that there is likely no difference in the ordinary meaning of Title VII between 1964 and today[160]. 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[161]. 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"»[162].

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

[153] *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.

[154] *Ibid.*, 1767.

[155] See generally MACLEOD 2019.

[156] See generally MACLEOD 2022.

[157] MACLEOD 2022, 19-28.

[158] MACLEOD 2022, 19-28.

[159] 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. 2021.

[160] *Bostock*, 140 S. Ct. at 1825 (Kavanaugh, J., dissenting).

[161] See generally TOBIA & MIKHAIL 2021.

[162] TOBIA & MIKHAIL 2021, 476.

fired because of his sex. [Yes or No]"[163]. This question also clarified that "sex" referred only to "biological sex"[164].

The study replicated Macleod's findings. The majority of participants endorsed that antigay and antitransgender firings were because of sex[165]. 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[166].

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[167].

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"[168]. 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 understanding of statutory terms "with both their previously-established legal meanings and their legal entailments"[169]. 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

[163] TOBIA & MIKHAIL 2021, 478.
[164] TOBIA & MIKHAIL 2021, 476 fn.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 occur in many species and that are distinguished respectively as female or male especially on the basis of their reproductive organs and structures"».
[165] TOBIA & MIKHAIL 2021, 480.
[166] TOBIA & MIKHAIL 2021, 480.
[167] TOBIA & MIKHAIL 2021, 480.
[168] TOBIA & MIKHAIL 2021, 486.
[169] TOBIA & MIKHAIL 2021, 486.

diverge. That divergence is best illuminated by empirical data[170].

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.

3.2. *The New Private Law*

Like the rise of ordinary meaning, the New Private Law is an influential and impressive movement in modern legal theory[171]. 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»[172].

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[173]. 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»[174]. It works to appreciate the nuanced «conceptual structure of the law»[175],

[170] 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 BERMAN & KRISHNAMURTHI 2021.

[171] See generally GOLD et al. 2020.

[172] GOLDBERG 2012, 1650.

[173] See generally, *e.g.*, BEN-SHAHAR & STRAHILEVITZ 2017 (proposing experiments to solve problems of contract interpretation).

[174] GOLD 2020, xvi.

[175] GOLDBERG 2012, 1652.

rejecting the realist critique that law's central concepts are «fictions, nonsense»[176]. 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 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»[177].

Experimental jurisprudence agrees. Descriptively, many legal concepts share features of the ordinary concept[178]. This supports the "folk-law thesis"[179]. 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[180].

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 2's experimental studies reveal, ordinary concepts and moral reasoning are not always "simple"[181], 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[182] and ordinary promising—many of which are not simple or obvious from the armchair[183].

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"[184]. Some empirical and psychological studies support criticism of traditional assumptions of reductive and instrumental approaches. For example, legal psychology can illuminate behavioral realities that conflict with standard assumptions of law and economics models[185].

Modern experimental jurisprudence takes a different approach, moving away from the "New Realism"[186], the old experimental jurisprudence (e.g., testing law's effects)[187], 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

[176] GOLDBERG 2012, 1652.
[177] GOLD & SMITH 2020, 504 f.
[178] See generally TOBIA 2021.
[179] See above, fn. 87 and accompanying text.
[180] See, e.g., above, § 2.
[181] GOLD & SMITH 2020, 505.
[182] See generally, e.g., HOFFMAN & WILKINSON-RYAN 2013.
[183] See generally, e.g., VANBERG 2008; MISCHKOWSKI et al. 2019; EDERER & STREMITZER 2018; STONE & STREMITZER 2020.
[184] GOLDBERG 2012,1642. For an example of empiricism and realism, see generally MILES & SUNSTEIN 2008.
[185] For a helpful example, see WILKINSON-RYAN 2020, 125.
[186] WILKINSON-RYAN 2020, 125.
[187] See generally BEUTEL 1971.

charged with interpreting [what] counts as 'reasonable'»[188]. This observation also supports a reply to Professor Jiménez's suggestion[189] 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[190].

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»[191] 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 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»[192].

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 2 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»[193].

[188] GOLDBERG 2012, 1657.
[189] JIMÉNEZ 2021.
[190] GOLDBERG 2012, 1656.
[191] GOLDBERG 2012, 1656.
[192] GOLDBERG & ZIPURSKY 2000, 79.
[193] GOLDBERG & ZIPURSKY 2000, 207 s.

XJur is well-positioned to contribute to debates about publicity, notice, and rule-of-law values[194]. 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.

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»[195].

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[196].

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»[197]. 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 importance to the concept of reasonableness, it receives stronger support from social contract theory than from economics»[198].

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

[194] See above, § 3.1.

[195] GOLDBERG & ZIPURSKY 2000, 109; see also GOLDBERG & ZIPURSKY 2000, 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».

[196] KEATING 1996, 212 s.

[197] KEATING 1996, 311.

[198] KEATING 1996, 382.

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»[199].

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[200]. Moreover, as Keating intuited, the ordinary concept of reasonableness reflects what is socially acceptable[201], not necessarily what is economically rational or efficient[202].

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.

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»[203]. 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»[204].

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[205], this possibility could support a jurisprudential division of conceptual labor; with laypeople as the experts of ordinary concepts and cognition.

199 KEATING 1996, 370 («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»).

200 See generally GROSSMAN et al. 2020.

201 KEATING 1996, 383.

202 See generally JAEGER 2021 (finding that the legal notion of reasonableness is affected more by what is customary than by what is economically rational).

203 MACLEOD 2019, 1021.

204 CUMMINS 1998, 116.

205 See generally, e.g., HONORÉ & GARDNER 2010.

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 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[206].

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"[207], the "intuitions of a community"[208]—not the seminar-room community but rather our social and legal community. As Professor Jeremy Waldron explains, «[i]t is not enough that we have considered what Kant said to Fichte»[209]. Intuitions of legal philosophers are to be assessed against what is in fact, «out there, in the world»[210].

4. *Conclusion*

«Whither jurisprudence? Time will tell»[211]. Some offer skeptical and pessimistic prognoses, heralding the «death of jurisprudence»[212].

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»[213]. Scholars will (and should) continue to inquire into longstanding, fundamental, general, and theoretical legal questions.

So why the pessimism? One jurisprudential eulogy concerns the field's dissolution into other disciplines[214]. 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[215] 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

[206] 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 2018b. This provides some evidence in favor of the proposed account.

[207] E.g., FERZAN 2005, 749 (explaining the role of intuition in the proposed analysis of self-defense).

[208] DRESSLER 2000, 961.

[209] WALDRON 1999, 313. 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». WALDRON 1999, 306.

[210] WALDRON 1999, 313 (emphasis omitted).

[211] SOLUM 2014, 2497.

[212] See, e.g., BEN-ZVI 2017.

[213] POSNER 1990, xi.

[214] BEN-ZVI 2017, 406 («There is nothing distinctively 'legal' about legal norms»).

[215] BEN-ZVI 2017, 406.

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[216]. 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. 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[217]. Those data are "suspended experimental 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.

[216] 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.

[217] See above, fn.49 and accompanying text.

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