

4. Experimental approaches to private law: the case of redressing personal injury

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INTRODUCTION

The inherent variability of cases in legal practice in the domain of private law places important constraints on the conclusions to be drawn from observations from actual litigation. Simply put, cases in the domain of private law vary with regard to numerous features (for example, nature of harm, liability standard, level of fault, claims, awards, features of the litigants, and so forth) that may impact the processes that occur within them, yet whose unique contributions to these outcomes are impossible to separate. This notion poses an important challenge for legal theorizing and policy making, as it makes it impossible to ascertain which factors or processes may account for particular desirable or undesirable phenomena in litigation—and impossible to understand, therefore, how legal policy and procedure should be shaped in response. While doctrinal, theoretical approaches and field observations can provide important indications, their inability to provide causal evidence means that initiatives derived from them may be off the mark, and thereby may fail to produce the desired results.

Experimental approaches provide a powerful tool to counter such limitations. These approaches seek to minimize or control the variability that characterizes cases in litigation practice, and to tease apart the effects of the numerous features on which they differ. Their means of doing so are laboratory or field experiments, in which actual litigation contexts are adapted or are simulated under controlled circumstances. In these experiments, the many, covarying features that characterize cases in actual litigation are disentangled by isolating particular key features (for example, whether apologies are provided or not) and varying them systematically between cases, while minimizing variability on other factors (for example, between types of tort, level of harm, and so on). Through this approach, the researcher can isolate the unique contributions of particular features or phenomena (for example, apology) to particular outcomes or challenges in legal practice (for example, secondary victimization). Thereby, experimental approaches enable the acquisition of unique causal evidence with

which legal theorizing and procedure can be tested and evaluated—to thereby enrich and advance current debate on such questions, and to inform future policy to address them (for example, current discussions on initiatives to facilitate apology).

In the present chapter, experimental approaches in the domain of private law are illustrated by focusing on the present discussion on victim restoration in the area of personal injury litigation. The chapter will outline how experimental approaches have been employed to illuminate the debate on the sufficiency of extant financial designs of personal injury litigation, and to evaluate the contribution of proposed reforms in this domain. The chapter will thereby show how experimental approaches can be used to test theoretical predictions and observations from practice, and how their conclusions may be applied to inform legal policy about the need for, and nature of, future reforms.

<a>PERSONAL INJURY LITIGATION: CURRENT DEBATE AND PERSPECTIVES

The sufficiency of extant designs of litigation is currently the subject of debate in the domain of personal injury litigation. Extant designs of personal injury litigation are focused on providing economic compensation to victims, with the aim of restoring them to the exact position they would have enjoyed in the absence of the injury.¹ In recent years, however, these designs have been criticized for being excessively focused on the economic resolution of injury, and negligent of victims' *relational* restoration. Specifically, such criticism stems from the insight that the harm of transgressions is not restricted to their material consequences, but also extends to their normative and relational implications: the fact that they constitute a violation against social norms and conventions that prohibit such behavior,² and harm a victim's sense of being an autonomous, influential, and esteemed social actor who

¹ Francesco D Busnelli and others, *Principles of European Tort Law: Text and Commentary* (Springer Vienna 2005); Deborah R Hensler, "Money Talks: Searching for Justice Through Compensation for Personal Injury and Death" (2003) 53 *DePaul Law Review* 417; Harold Luntz, *Assessment of Damages for Personal Injury and Death: General Principles* (Butterworths 2006); Ulrich Magnus and Francesco Donato Busnelli, *Unification of Tort Law: Damages*, vol. 5 (Kluwer Law International 2001); José Mulder, "How Do We Compensate a Victim's Losses? An Economic Perspective" (2009) 16 *International Review of Victimology* 67; Andrew J Oswald and Nattavudh Powdthavee, "Death, Happiness and the Calculation of Compensatory Damages" (2008) 37 *Journal of Legal Studies* 217; Eric A Posner and Cass R Sunstein, "Dollars and Death" (2005) 72 *University of Chicago Law Review* 537.

² Tyler G Okimoto and Tom R Tyler, "Is Compensation Enough? Relational Concerns in Responding to Unintended Inequity" (2007) 10 *Group Processes & Intergroup Relations* 399.

is treated justly and whose rights and identity are being respected.³ To restore a transgression, a resolution therefore should not only compensate the victim's (material and immaterial) costs, but should address these normative and relational aspects as well. As such, a resolution should also convey recognition of the wrongfulness of the act, and of the perpetrator's responsibility or guilt for it—and thereby reaffirm the legitimacy of the norms that were broken, and reempower the victim by subjecting the perpetrator to his/her capacity to forgive.⁴

Current designs of personal injury litigation, however, have been claimed to be insufficient for this purpose; they are said to neglect these aspects in the resolution of injury,⁵ and restore them insufficiently through the remedies they provide.⁶ Firstly, in its aim to restore the victim, personal injury litigation focuses extensively on the consequences of the transgression (that is, the victim's material and immaterial harm, such as medical costs, loss of revenue, disability, pain and suffering, lost future prospects, and so on), and on assigning the appropriate level of (economic) compensation for them.⁷ This focus involves little attention to the normative aspects of the transgression, or to its relational costs for the victim,⁸ and may even crowd out the victim's perspective by relying extensively on the input of experts (secondary

³ Nurit Shnabel and others, "Promoting Reconciliation through the Satisfaction of the Emotional Needs of Victimized and Perpetrating Group Members: The Needs-Based Model of Reconciliation" (2009) 35 *Personality and Social Psychology Bulletin* 1021.

⁴ Okimoto and Tyler (n 2); Nurit Shnabel and Arie Nadler, "A Needs-Based Model of Reconciliation: Satisfying the Differential Emotional Needs of Victims and Perpetrators as a Key to Promoting Reconciliation" (2008) 94 *Journal of Personality and Social Psychology* 116.

⁵ Richard L Abel, "General Damages Are Incoherent, Incalculable, Incommensurable, and Inegalitarian (But Otherwise a Great Idea)" (2006) 55 *DePaul Law Review* 253; Arno J Akkermans and Kiliaan APC Van Wees, "Het letselschadeproces in therapeutisch perspectief [Personal Injury Litigation from a Therapeutic Perspective]: Hoe door verwaarlozing van zijn emotionele dimensie het afwikkelingsproces van letselschade tekortschiet in het nastreven van de eigen doeleinden" (2007) 10 *Tijdschrift voor Vergoeding Personenschade* 103; Robyn Carroll and Normann Witzleb, "It's Not Just About the Money—Enhancing the Vindictory Effect of Private Law Remedies" (2011) 37 *Monash University Law Review* 216; Liesbeth Hulst and Arno J Akkermans, "Can Money Symbolize Acknowledgment? How Victims' Relatives Perceive Monetary Awards for Their Emotional Harm" (2011) 4 *Psychological Injury and Law* 245; JE Hulst, AJ Akkermans and S Van Buschbach, *Excuses aan verkeersslachtoffers: Een onderzoek naar baten, effectiviteit en methode van het bevorderen door verzekeraars van het aanbieden van excuses aan verkeersslachtoffers [Apologies to Victims of Traffic Accidents: A Study of the Benefits, Effectiveness and Method of Encouraging Apologies to Traffic Accident Victims through Insurers]* (Boom Lemma 2014); Siewert Lindenbergh and Peter Mascini, "Schurende dilemma's in het aansprakelijkheidsrecht – De spanning tussen financiële en relationele compensatie [Conflicting Dilemmas in Liability Law: the Tension Between Financial and Relational Compensation]" in Willem H Van Boom (ed.), *Capita civilologie: Handboek empirie en privaatrecht* (Boom Juridische Uitgevers 2013); Prue Vines, "Apologising for Personal Injury in Law: Failing to Take Account of Lessons from Psychology in Blameworthiness and Propensity to Sue" (2015) 22 *Psychiatry, Psychology and Law* 624.

⁶ Philip E Tetlock and others, "The Psychology of the Unthinkable: Taboo Trade-Offs, Forbidden Base Rates, and Heretical Counterfactuals" (2000) 78 *Journal of Personality and Social Psychology* 853; Posner and Sunstein (n 1).

⁷ E.g. Hensler (n 1); Lutz (n 1); Oswald and Powdthavee (n 1).

⁸ Akkermans and Van Wees (n 5); Carroll and Witzleb (n 5); Hulst, Akkermans and Van Buschbach (n 5); Lindenbergh and Mascini (n 5); Vines (n 5).

victimization).⁹ Secondly, to restore the victim, personal injury litigation relies on economic compensation, which therefore must serve as a substitute for the victim's actual costs (as health cannot directly be corrected by money, unlike material harm).¹⁰ Some question, however, whether such reparations are sufficient for restoring personal injury, as money and health may not be transposable, and substituting them may be experienced as objectionable.¹¹ Moreover, the act of paying compensation does not directly address the normative or relational aspects of harm;¹² rather, an economic resolution enables the perpetrator to resolve the transgression without having to admit to wrongdoing or guilt. These limitations are suggested to form an important impediment to settlement and reconciliation, and explain why some scholars have advocated legal reforms to address them—most notably through initiatives to facilitate apology.¹³

Initiatives to facilitate apology in personal injury litigation advocate legal reforms that promote the provision of apologies by tortfeasors by prohibiting their use as evidence of guilt,¹⁴ or by imposing a legal duty to apologize.¹⁵ They do so because substantive apologies convey acknowledgment of wrongdoing and an expression of remorse,¹⁶ and thereby constitute an admission that the violation should not have happened, and should not happen again.¹⁷ Apologies are therefore regarded as a possible means of addressing the (neglected) need for normative and relational acknowledgment that victims experience in current designs of personal injury litigation—and thereby as a means of facilitating its resolution.¹⁸

⁹ A Cotti and others, "Road Traffic Accidents and Secondary Victimization: The Role of Law Professionals" (2004) 23 *Medicine and Law* 259.

¹⁰ Posner and Sunstein (n 1).

¹¹ Tetlock and others (n 6).

¹² Hulst and Akkermans (n 5).

¹³ Carroll and Witzleb (n 5); Hulst and others (n 5); Vines (n 5).

¹⁴ Jonathan R Cohen, "Advising Clients to Apologize" (1999) 72 *Southern California Law Review* 1009; Elizabeth Latif, "Apologetic Justice: Evaluating Apologies Tailored towards Legal Solutions" (2001) 81 *Boston University Law Review* 289; Daniel W Shuman, "The Role of Apology in Tort Law" (2000) 83 *Judicature* 180; Prue Vines, "Apologies and Civil Liability in the UK: A View from Elsewhere" (2008) 12 *Edinburgh Law Review* 200.

¹⁵ Robyn Carroll, "You Can't Order Sorrow, So Is There Any Value in an Ordered Apology? An Analysis of Ordered Apologies in Anti-Discrimination Cases" (2010) 33 *University of New South Wales Law Journal* 360; Andrea Zwart-Hink, Arno J Akkermans, and Kiliaan APC Van Wees, "Compelled Apologies as a Legal Remedy: Some Thoughts from a Civil Law Jurisdiction" (2014) 38 *University of Western Australia Law Review* 100.

¹⁶ Nicholas Tavuchis, *Mea Culpa: A Sociology of Apology and Reconciliation* (Stanford University Press, 1991).

¹⁷ Nick Smith, *I Was Wrong: The Meaning of Apologies* (Cambridge University Press 2008).

¹⁸ Akkermans and Van Wees (n 5); Carroll and Witzleb (n 5); Lindenbergh and Mascini (n 5); Vines (n 5); see also Steve S Kraman and Ginny Hamm, "Risk Management: Extreme Honesty May Be the Best Policy" (1999) 131 *Annals of Internal Medicine* 963; Tamara Relis, "'It's Not About the Money!' A Theory on Misconceptions of Plaintiffs' Litigation Aims" (2007) 68 *University of Pittsburgh Law Review* 341; Jennifer K Robbennolt, "Apologies and Legal Settlement: An Empirical Examination" (2003) 102 *Michigan Law Review* 460; Shuman (n 14).

Initiatives to promote the provision of apologies in personal injury litigation are primarily based on theorizing;¹⁹ on insights derived from social scientific research;²⁰ on observations from other legal domains and jurisdictions;²¹ and on field research involving case studies, interviews, and surveys.²² However, because apologies are only infrequently employed in litigation practice, and because proposed initiatives to facilitate them have not yet been widely implemented in practice, extant perspectives provide only limited indications of their potential contribution to personal injury litigation. For these reasons, experimental approaches, in which the provision of apologies and initiatives to facilitate them can directly be tested, can enable valuable insight into these processes. In the following, I briefly review extant legal approaches to apology in personal injury litigation, and highlight their relative strengths and limitations. I then outline how experimental approaches can be employed to extend and augment these perspectives, and how they can thereby enable important advances for legal theorizing and practice in this domain.

<a>APOLOGY IN PERSONAL INJURY LITIGATION: EXTANT LEGAL APPROACHES

Doctrinal and Comparative Research

Insights on apology taken from doctrinal or comparative legal research are the result of theoretical reasoning, in which insights from a range of legal sources (for example, legislation, legal procedure, case law, and so on) are synthesized to develop a theoretical argument on (for example) the sufficiency of extant litigation designs or the value of apology.²³ For example, such research may integrate analyses of legislation and legal procedure with observations from salient individual cases to develop the position that extant litigation designs are likely to evoke concerns over liability and pecuniary loss, which may motivate legal practitioners and insurers to dissuade conciliatory initiatives, and thereby

¹⁹ For example, Cohen (n 14); Brent T White, “Say You’re Sorry: Court-Ordered Apologies as a Civil Rights Remedy” (2005) 91 *Cornell Law Review* 1261.

²⁰ For example, Vines (n 5).

²¹ For example, Deborah L Levi, “The Role of Apology in Mediation” (1997) 72 *New York University Law Review* 1165.

²² For example, Hulst and others (n 5).

²³ See also Deborah L Rhode, “Legal Scholarship” (2002) 115 *Harvard Law Review* 1327; Marnix VR Snel, “Source-Usage within Doctrinal Legal Inquiry: Choices, Problems, and Challenges” (2014) 4 *Law and Method*, DOI: 10.5553/REM/000005.

impede the resolution of personal injury.²⁴ Insights may also be deduced from comparisons with other legal domains or systems, where apologies are more commonly issued or are facilitated through procedure or legislation (for example, comparison of legislation and procedure between Japan, where extant legislation encourages apology, and America, where it does not;²⁵ comparison with initiatives to safeguard apology in various common law jurisdictions;²⁶ comparison with criminal litigation, where initiatives exist to facilitate contact between victims and offenders²⁷). As such, doctrinal and comparative approaches to apology offer important strengths in terms of their theoretical synthesis and development, by integrating insights from a broad range of sources into a theoretical argument that is firmly grounded in legal discourse and litigation practice. However, an important limitation to these approaches is their limited provision of tangible, empirical evidence with which their propositions can be substantiated.²⁸ This leaves such contributions vulnerable to biases and errors,²⁹ and limited in their capacity to resolve the legal debate on apology—in which the same methods are also employed to advocate the opposite position.³⁰

Field Research

A second strand of insight on apology follows from field research that targets the main protagonists of personal injury litigation (for example, victims, perpetrators, legal representatives, insurers, and so on), and assesses their needs or experiences to understand the sufficiency of extant litigation designs and the value of apology. The majority of such initiatives concern anecdotal evidence or case studies on individual actors.³¹ However, more recently, such initiatives have extended to more structured research involving qualitative or quantitative methods.³²

²⁴ Cohen (n 14); White (n 19).

²⁵ See also Hiroshi Wagatsuma and Arthur Rosett, “The Implications of Apology: Law and Culture in Japan and the United States” (1986) 20 *Law and Society Review* 488.

²⁶ See Vines (n 14).

²⁷ See Levi (n 21).

²⁸ Rhode (n 23).

²⁹ Rhode (n 23); Snel (n 23).

³⁰ For example, Yonathan A Arbel and Yotam Kaplan, “Tort Reform through the Backdoor: A Critique of Law and Apologies” (in press) *Southern California Law Review*.

³¹ For example, Abel (n 5); Cohen (n 14); White (n 19).

³² For example, Arno J Akkermans and others, *Slachtoffers en aansprakelijkheid. Een onderzoek naar behoeften, verwachtingen en ervaringen van slachtoffers en hun naasten met betrekking tot het civiele aansprakelijkheidsrecht, Deel II, Affectieschade [Victims and Liability: A Study of the Needs, Expectations and Experiences of Victims and Those Close to Them in Relation to Civil Liability Law, Part II, Affectionate Damage]* (WODC 2008); Hulst and Akkermans (n 5); RME Huver and others, *Slachtoffers en aansprakelijkheid. Een onderzoek naar behoeften, verwachtingen en ervaringen van slachtoffers en hun naasten met betrekking tot het civiele aansprakelijkheidsrecht, Deel I, Terreinverkenning [Victims and Liability. A Study*

Anecdotal evidence and case studies are frequently included in doctrinal approaches to apology and personal injury litigation.³³ They typically involve citations from verbal or written statements by individual actors from the practice of personal injury litigation. White,³⁴ for example, presents anecdotal evidence on the needs of victims taken from his experiences as a solicitor, to substantiate the claim that a thwarted need for apology may contribute to decisions to litigate. Such initiatives are commendable in that they aim to bolster their theoretical argument with observations from legal practice, to thereby provide (some) empirical evidence for their claims. However, the use of anecdotal evidence and case studies is highly limited for this purpose, as the provision of specific, isolated examples that support one's reasoning represents no true test of the predictions' generality.³⁵

Qualitative field research on personal injury litigation counters these limitations by collecting a sample of relevant actors or cases and systematically exploring the hypothesized phenomena (for example, nature of victims' needs, settlement decisions, satisfaction following litigation) within them. Such contributions typically rely on interviews in which key concepts are systematically explored through an open format that does not restrict the answers that respondents may provide. Relis,³⁶ for example, employed this method to compare perceptions of victims' litigation goals between physicians' lawyers, plaintiffs' lawyers, and plaintiffs in medical malpractice cases. Her study collected a sample from each of these groups, and explored the reasons victims described for their decisions to litigate and the reasons attributed to them by attorneys. The content of their responses was analyzed and coded, and compared between these samples. This comparison revealed that lawyers misperceived the goals of plaintiffs by assuming them to be (exclusively or predominantly) motivated by financial goals; in contrast, victims' actual motives mostly reflected extralegal objectives of principle (for example, admission of responsibility, prevention of similar incidents, apology, and so on). This example highlights the strengths of qualitative approaches, in terms of their standardized (that is, semistructured) method, which enables the focal concepts to be systematically assessed within a sample of respondents, and their inductive approach, which places no preset restrictions on responses and can thereby capture relevant issues beyond those theorized. In these applications, qualitative approaches to

of the Needs, Expectations and Experiences of Victims and Those Close to Them in Relation to Civil Liability Law. Part I, Exploratory Study] (WODC 2007); Relis (n 18).

³³ For example, Abel (n 5); Cohen (n 14); White (n 19).

³⁴ White (n 19).

³⁵ Rhode (n 23).

³⁶ Relis (n 18).

personal injury litigation therefore have great potential for advancing or refining extant legal theorizing or procedure. Nevertheless, qualitative methods also have their limitations (for an overview, see Diefenbach³⁷). For one, such research is frequently laborious due to the large volume of responses from individual cases, and therefore must often rely on relatively modest samples. In legal contexts, this may be exacerbated by practical limitations in gaining access to litigants or legal professionals. These limitations make qualitative approaches vulnerable to variability, in that observations may differ on numerous dimensions that are impossible to separate—for example, nature of harm, severity, permanency, relationship with offender, duration of litigation, and so on.³⁸ These aspects make it difficult to isolate the reasons for the observed phenomena (that is, causality), or to know whether they apply beyond the current sample (that is, generalizability).

Survey research on personal injury addresses these limitations by targeting large samples of respondents and presenting them with an identical set of (typically closed-format) questions. Hulst and Akkermans,³⁹ for example, employed this method to examine attitudes toward economic compensation for emotional harm in relatives of personal injury victims. Their study collected a sample of 726 relatives of personal injury victims through large market research panels and victim associations. These respondents were presented with quantitative measures that assessed their need for compensation for emotional harm; their beliefs about its impact on their emotional restoration; and their preferences for the appropriate level, procedure, and mode of its assignment. The answers of the 463 respondents whose cases would be eligible for compensation were analyzed. The results indicated that they displayed sizable needs for such compensation and favorable beliefs concerning its likely impact, regarding it as a gesture of acknowledgment. This example highlights some important strengths of survey research, in that a sizable number of cases can be collected at limited effort and cost (relative to qualitative approaches). Moreover, the standardization of measures ensures that focal concepts can be examined throughout the sample, and compared between categories within it (for example, respondents whose relatives were injured versus killed in an incident) rather than only in the subset of respondents who mention them of their own accord. These aspects potentially enable important advances in sensitivity to specific questions and in generalizability of results, making survey research well suited for testing the predictions of

³⁷ Thomas Diefenbach, “Are Case Studies More than Sophisticated Storytelling? Methodological Problems of Qualitative Empirical Research Mainly Based on Semi-Structured Interviews” (2009) 43 *Quality & Quantity* 875.

³⁸ See Huver and others (n 32).

³⁹ Hulst and Akkermans (n 5).

legal theorizing. However, survey research also suffers some important limitations.⁴⁰ By relying on standardized measures, such approaches are more restrictive than qualitative research and offer limited scope for capturing relevant issues beyond those theorized, which may threaten the validity of its conclusions. Moreover, as the example illustrates, surveys may also be limited by bias in sampling, due to limitations in access to, or nonresponse from, particular types of respondents or cases. Lastly, survey research is limited in its capacity to control variability, isolate causal relationships, and capture actual, legally relevant behaviors (for example, how may emotional awards impact settlement decisions?).

In sum, extant legal research into the sufficiency of current designs of personal injury litigation, and the value of apology, is limited by a paucity of empirical support. Field research has been employed to redress this deficiency, and provides important insight into victims' satisfaction with current (financial) designs of personal injury litigation and the needs that are and are not sufficiently recognized or met within them.⁴¹ But with regard to the present debate on apology, extant research suffers some important limitations. Most prominent of these is its limited capacity for illuminating the actual value or impact of apologies. Because apologies are infrequently offered in personal injury litigation, and may be offered especially in particular types of cases, field research provides only limited insight into their remedial value. Because proposed initiatives to facilitate apology have not yet been widely implemented in practice, field research cannot readily assess their benefits. Extant research on these questions is therefore limited to assessing respondents' beliefs or predictions on the value of apology.⁴² Insights from psychology suggest, however, that people may frequently miscalculate their own responses to restorative initiatives.⁴³ As such, in order to understand the value of apology, and of initiatives to facilitate it, research is needed that can illuminate victims' actual responses to such reparations, in settings where the influence of covarying features can be minimized. Experimental approaches provide a valuable means of doing so, and thereby can represent an important addition to the legal researcher's methodological arsenal.

⁴⁰ Peter M Nardi, *Doing Survey Research* (Routledge 2015).

⁴¹ Deborah R Hensler and others, *Compensation for Accidental Injuries in the United States* (RAND 1991); Huver and others (n 32); Frank A Sloan and others, "The Road from Medical Injury to Claim Resolution: How No-Fault and Tort Differ" (1997) 60 *Law and Contemporary Problems* 35; Relis (n 18); C Vincent, M Young and A Phillips, "Why Do People Sue Doctors? A Study of Patients and Relatives Taking Legal Action" (1994) 343 *The Lancet* 1609.

⁴² Akkermans and others (n 32); Akkermans and Van Wees (n 5); Hulst and others (n 5).

⁴³ D De Cremer, M Pillutla, and CP Reinders Folmer, "How Important Is an Apology to You? Forecasting Errors in Evaluating the Value of Apologies" (2011) 22 *Psychological Science* 45.

<a>EXPERIMENTAL APPROACHES

Experimental approaches aim to simulate actual litigation contexts in controlled circumstances, or to experimentally modify actual litigation practice in the field. In doing so, they aim to examine legal questions in settings where the variability that characterizes cases in actual litigation (for example, between types of tort, level of harm, and so on) can be kept constant. In this controlled setting, specific focal variables are varied or *manipulated* between cases (for example, whether an apology is provided or not; the size of the settlement being offered), while particular outcomes are measured (for example, level of satisfaction of victims' relational needs; victims' willingness to settle). Through this approach, the manipulated variables' unique effects on these outcomes can be assessed. In this way, experimental approaches enable legal researchers to test causal relationships that cannot readily be separated in legal practice. Moreover, they can be shaped to test phenomena that occur infrequently in legal practice (for example, provision of apologies), or which have not yet been implemented in that area (for example, initiatives to facilitate or coerce apology). Thereby, experimental approaches can enable important preliminary insights into such questions, and thus contribute unique evidence to extant perspectives on private law.

Three major types of approach can be separated, which differ in their levels of complexity, control, and embeddedness in legal practice. Below, each type is described in detail and illustrated by means of examples relevant to personal injury litigation and apology.

Experimental Vignettes

Experimental approaches employing *vignettes* or *scenarios* seek to examine legal questions by (hypothetically) placing participants within standardized, equivalent situations and assessing their responses. They do so by providing them with written descriptions of legally relevant settings (for example, litigation following a personal injury incident), in which they are asked to imagine themselves.⁴⁴ Within these descriptions, key variables are manipulated (for example, provision of apology versus no apology). Thereupon, participants are requested to fill in a questionnaire of (usually quantitative) dependent measures (for example,

⁴⁴ Robbennolt (n 18); Jennifer K Robbennolt, "Apologies and Settlement Levers" (2006) 3 *Journal of Empirical Legal Studies* 333; Jennifer K Robbennolt, "Attorneys, Apologies, and Settlement Negotiation" (2008) 13 *Harvard Negotiation Law Review* 349.

impressions of the offender; decisions to settle), so that the impact of the manipulations on these outcomes can be assessed.

An illustration of the vignette approach in the domain of personal injury litigation is the research program conducted by Jennifer Robbennolt,⁴⁵ which sought to illuminate how apology may contribute to the settlement of personal injury litigation. To do so, Robbennolt constructed experimental vignettes of personal injury incidents in which an identical incident (a victim being struck by a careless cyclist and thereby injured) was manipulated to feature either an apology or no apology. Participants were instructed to imagine themselves in the situation and their settlement intentions were measured. The results indicated that participants who received an apology set lower reservation prices (lowest acceptable settlement amount) and showed greater willingness to settle than participants who received no apology.⁴⁶

Further research has employed the vignette method to expand on these findings. Reinders Folmer, Desmet, and Van Boom investigated the interplay between material and relational needs in the restoration of personal injury,⁴⁷ by examining how the effectiveness of apology may be contingent on the level of financial compensation that victims are offered in settlement. Their research presented participants with vignettes of personal injury incidents based on Robbennolt's studies, and manipulated: (1) the type of harm (material harm or personal injury, equivalent in cost); (2) whether or not an apology was provided; and (3) the size of the settlement offer (60, 90, or 100 percent of the claimed damages). When thus taking into account the impact of settlement offers, this study showed that while apologies contributed significantly to victims' relational restoration—particularly in cases of partial compensation—they did not significantly facilitate settlement decisions, which were primarily contingent on the size of the settlement offer. In a followup to her original study, Robbennolt also observed potential limitations to apology when comparing the perspective of victims with that of legal representatives, who conduct such cases on victims' behalf.⁴⁸ Relying again on identical vignettes in which the provision of apology was manipulated, Robbennolt observed that, contrary to their appealing impact on victims, apologies *increased* settlement demands among attorneys.

⁴⁵ Ibid.

⁴⁶ Ibid.

⁴⁷ Christopher P Reinders Folmer, Pieter TM Desmet and Willem H Van Boom, "Is It Really Not about the Money? Victim Needs Following Physical and Material Harm and their Restoration through Financial and Relational Compensation" (2018) Manuscript in preparation.

⁴⁸ Robbennolt 2008 (n 44).

These studies illustrate how experimental vignettes can be employed to enable valuable insight for legal theorizing and practice. Through this approach, theoretical relationships that cannot easily be separated or investigated in litigation practice can be examined, in a manner that consumes relatively little time or effort on the part of either researchers or participants. These aspects make experimental vignettes well suited for providing (preliminary) evidence on the predictions of legal theorizing—in these examples, by suggesting that while apology may indeed enhance victims’ satisfaction, this need not translate into a more conciliatory resolution, in light of its limited impact on victims’ settlement decisions and the competitive response it evokes in victims’ attorneys.

However, vignette research also has some important limitations.⁴⁹ Firstly, vignettes frequently rely on simplified representations of legally relevant situations, which may underrepresent the richness and complexity of the situations actually found in legal practice. While this enables specific theoretical processes to be isolated and tested, such processes may operate with greater complexity in legal practice (for example, by interacting with features of the case, the litigants, and so on). As such, their suitability for generating insights that are relevant for private law is therefore critically dependent on the representativeness and quality of these portrayals. Additionally, vignette research relies on respondents’ imagination of hypothetical incidents, and on their predictions of their likely experiences and responses. These may differ from the ways in which they would experience and respond to such situations in real life.⁵⁰ Vignette research should therefore be regarded primarily as a means to gain insight into respondents’ beliefs or preferences, rather than to derive surefire predictions of their future behavior.

Laboratory Experiments

Laboratory experiments seek to place participants directly in legally relevant situations. They do so by simulating legally relevant settings or events in a controlled laboratory environment, representing, for example, the incident that is the subject of litigation (such as suffering damage—or inflicting it upon others—through wrongful or negligent behavior⁵¹) or the

⁴⁹ Vladimir J Konecni and Ebbe B Ebbesen, “Methodological Issues in Research on Legal Decision-making, with Special Reference to Experimental Simulations” in Friedrich Loesel, Doris Bender, and Thomas Bliesener (eds), *Psychology and Law: International Perspectives* (de Gruyter 1992) 413–23.

⁵⁰ De Cremer and others (n 43).

⁵¹ See Theodore Eisenberg and Christoph Engel, “Unpacking Negligence Liability: Experimentally Testing the Governance Effect” (2016) 13 *Journal of Empirical Legal Studies* 116; Also see Zev J Eigen, “When and Why Individuals Obey Contracts: Experimental Evidence of Consent, Compliance, Promise, and Performance” (2012) 41 *Journal of Legal Studies* 67.

process of litigation itself (such as negotiations over settlements, judicial decision making,⁵² mediation⁵³). In the experiment these situations are standardized between participants, so that all are presented with identical circumstances, while key variables are manipulated and/or measured. In this way, laboratory experiments enable legal researchers to let participants directly experience legally relevant situations or experiences, and to examine how particular features or phenomena (for example, provision of apology versus no apology) may impact the judgments, preferences, and/or behavior that they display within them.

While instances of physical harm are difficult to recreate in experimental settings,⁵⁴ the restorative initiatives that have been proposed to address them in personal injury litigation (that is, facilitating or coercing apology) can be recreated and tested in experimental settings. An illustration of this is provided by the research of Saulnier and Sivasubramaniam,⁵⁵ which examined the effectiveness of facilitating direct or indirect contact between offenders and victims, focusing in particular on the question of how the presence or absence of the victim and the level of pressure to apologize may impact the quality of perpetrators' apologies. To do so, the researchers conducted a laboratory experiment in which participants were induced to unintentionally cause a computer crash which was thought to result in the corruption of crucial and irreplaceable documents. In response, offenders were requested or coerced to provide a written apology—either directly, by the victim of their transgression, or by one of his/her colleagues (in which case the victim was not present). The quality of these apologies, as well as their remedial potential, was assessed by independent raters. The results indicated that offenders' apologies were less remorseful and exhibited less remedial potential in cases where they were coerced rather than requested. Moreover, offenders exhibited less remorse and offered less adequate apologies when apologizing directly to the victim, rather than indirectly through the victim's colleague. Thereby, this study provides a valuable indication of the possible limitations of legal initiatives to facilitate or coerce apology.⁵⁶

A final strand of laboratory experiments that is relevant for the discussion on apology focuses on the question of how restorative initiatives, such as the provision of apologies, may

⁵² See Kristin L. Sommer, Irwin A. Horowitz, and Martin J. Bourgeois, "When Juries Fail to Comply with the Law: Biased Evidence Processing in Individual and Group Decision Making" (2001) 27 *Personality and Social Psychology Bulletin* 309.

⁵³ See Alana Saulnier and Diane Sivasubramaniam, "Effects of Victim Presence and Coercion in Restorative Justice: An Experimental Paradigm" (2015) 39 *Law and Human Behavior* 378.

⁵⁴ But see Pierre Rainville and others, "A Psychophysical Comparison of Sensory and Affective Responses to Four Modalities of Experimental Pain" (1992) 9 *Somatosensory and Motor Research* 265.

⁵⁵ Saulnier and Sivasubramaniam (n 53).

⁵⁶ See Carroll (n 15).

impact judicial judgment and decision making.⁵⁷ Such studies fit within a broader body of research that is primarily focused on the domain of criminal litigation, which experimentally studies judicial decision making in situations where what is demanded by law may conflict with cognitive, psychological processes—such as the legal obligation to disregard inadmissible evidence or coerced confessions, despite the inability to cognitively erase that knowledge from one’s mind.⁵⁸ Experiments study these processes by presenting judicial decision makers (judges, attorneys, law students) with simulated case materials that mirror legal practice (for example, evidence, testimonies, and so on), or by experimentally recreating the process of litigation in mock trials. An example is the research of Jehle and colleagues,⁵⁹ which presented mock jurors with realistic videos of a murder trial in which a defendant was charged with murdering his neighbor following a dispute over property lines. The (staged) videos were filmed at an actual courtroom, featured experienced actors, and followed the typical sequence of trials in the United States, including a range of realistic details (such as the judge prompting the attorneys and witnesses, witnesses being sworn in, and so on). Within this setting, the defendant’s testimony was manipulated to include either an excuse, a justification, a denial, or no explanation. Moreover, the remorsefulness of these accounts was manipulated, so that they were conveyed either remorsefully (downcast gaze and trembling voice, expression of sympathy to victim’s family) or without remorse (continual eye contact and emotionless tone). Ultimately, mock jurors’ verdicts were solicited. The results indicated (unsurprisingly) that, relative to other accounts, denials reduced the likelihood of a guilty verdict. More relevant to the discussion on apology, however, it was found that accounts which were accompanied by a remorseful demeanor *increased* the likelihood of a guilty verdict. This analysis is complemented by the research of Rachlinski and colleagues,⁶⁰ who

⁵⁷ For example, Brian H Bornstein, Lahna M Rung, and Monica K Miller, “The Effects of Defendant Remorse on Mock Juror Decisions in a Malpractice Case” (2002) 20 *Behavioral Sciences and the Law* 393; Emily P Corwin and others, “Defendant Remorse, Need for Affect, and Juror Sentencing Decisions” (2012) 40 *Journal of the American Academy of Psychiatry and the Law* 41–9; Alayna Jehle, Monica K Miller and Markus Kimmelmeier, “The Influence of Accounts and Remorse on Mock Jurors’ Judgment of Offenders” (2009) 33 *Law and Human Behavior* 393; Jeffrey J Rachlinski, Chris Guthrie and Andrew J Wistrich, “Contrition in the Courtroom: Do Apologies Affect Adjudication?” (2013) 98 *Cornell Law Review* 1198.

⁵⁸ Saul M Kassin and Samuel R Sommers, “Inadmissible Testimony, Instructions to Disregard, and the Jury: Substantive versus Procedural Considerations” (1997) 23 *Personality and Social Psychology Bulletin* 1046; Saul M Kassin and Holly Sukel, “Coerced Confessions and the Jury: An Experimental Test of the “Harmless Error” Rule” (1997) 21 *Law and Human Behavior* 27; Joel D Lieberman and Jamie Arndt, “Understanding the Limits of Limiting Instructions: Social Psychological Explanations for the Failures of Instructions to Disregard Pretrial Publicity and Other Inadmissible Evidence” (2000) 6 *Psychology, Public Policy, and Law* 677; Kamala London and Narina Nunez, “The Effect of Jury Deliberations on Jurors’ Propensity to Disregard Inadmissible Evidence” (2000) 85 *Journal of Applied Psychology* 932.

⁵⁹ Jehle and others (n 57).

⁶⁰ Rachlinski and others (n 57).

examined the impact of apology on verdicts in a series of experiments with judges as participants. While the effects of apology were modest and fluctuated between cases, their results generally indicated that apologies either had no impact on judges or produced harsher verdicts in civil law cases, while producing mildly more lenient verdicts in criminal cases. These experimental studies therefore highlight that while apologies and expressions of remorse may respond to victims' need for relational compensation, they may also entail adverse effects for defendants⁶¹—evidence that is important for the legal discussion on whether apology should be protected in litigation.⁶²

In sum, these studies illustrate how laboratory experiments can be employed to enable valuable insights for legal theorizing and practice. Through their capacity to recreate or simulate legally relevant situations while not being tied to the restrictions of litigation practice (for example, variability between cases, inability to interfere with procedure, and so on), experiments provide a unique perspective on legal processes and enable insight that may serve to affirm or challenge extant assumptions in legal theorizing or practice (for example, by suggesting that initiatives to facilitate apology may detrimentally affect their content and quality⁶³). However, as a flipside to these strengths, laboratory experiments also suffer some important limitations.⁶⁴ Firstly, their simulations or abstractions of legal practice may be simplified and artificial compared to the ways in which such processes may operate in real life, where they may interact with other features or processes that do not feature (or are kept constant) in the experiment. While insights from experiments may contribute valuable pieces to an understanding of this puzzle, their relevance for legal theorizing and practice is critically dependent on the representativeness and quality of their portrayals. Moreover, laboratory experiments may be limited by the samples they examine, which tend to include a disproportionate amount of college students.⁶⁵ While such participants may be comparable to litigants in the sense that they are viable subjects of torts, they may differ in other aspects (for example, age, level of education, employment history), which may affect the results. Therefore, experiments should particularly be regarded as a means of gaining insight into

⁶¹ See also Keith E Niedermeier, Irwin A Horowitz, and Norbert L Kerr, "Exceptions to the Rule: The Effects of Remorse, Status, and Gender on Decision Making (2001) 31 *Journal of Applied Social Psychology* 604; but see Bornstein and others (n 57); Gregg J Gold and Bernard Weiner, "Remorse, Confession, Group Identity, and Expectations About Repeating a Transgression" (2000) 22 *Basic and Applied Social Psychology* 291.

⁶² See also Vines (n 14).

⁶³ Saulnier and Sivasubramaniam (n 53).

⁶⁴ See Konecni and Ebbesen (n 49).

⁶⁵ But see Rachlinski and others (n 57).

people's judgments, preferences, and behaviors in legally relevant situations, rather than as a means to directly understand how these processes operate in legal practice.

Field Experiments

A final strand of experimental legal research concerns experimental approaches that are conducted in actual litigation contexts. Such research involves the systematic manipulation of particular treatments in the practice of litigation of its periphery. In such an approach, a treatment is implemented in one set of cases, which is contrasted with a comparable set of cases where the treatment is not implemented (that is, a randomized trial). This approach enables field experiments to directly examine the impact of the focal treatments in litigation practice—and thereby to directly assess their value in this domain.

Examples of this approach that are relevant for personal injury litigation are particularly situated in the domain of criminal litigation, where alternative dispute resolution initiatives rooted in the principles of restorative justice have been tested extensively.⁶⁶ An illustration is the research by Sherman and colleagues,⁶⁷ who examined the impact of participation in out-of-court restorative justice conferences on the restoration of victims of burglary and robbery in Australia and the United Kingdom. Restorative justice conferences bring together crime victims and offenders in a face-to-face conference, in which they discuss (1) the (reasons for the) incident itself, (2) its consequences for either party, and (3) the necessary means to repair the harm caused.⁶⁸ In Sherman's study, suitable cases were randomly assigned to follow either the standard legal resolution of their case or the standard resolution supplemented by a restorative justice conference. The study examined how this treatment impacted the provision of apologies and the victims' restoration, in terms of their forgiveness for the offense, their vengefulness, and their self-blame. The results indicated that victims whose trajectory had included a restorative justice conference were vastly more likely to receive a (credible) apology from the offender. While there was no evidence that participation in restorative

⁶⁶ Caroline M Angel and others, "Short-Term Effects of Restorative Justice Conferences on Post-Traumatic Stress Symptoms among Robbery and Burglary Victims: A Randomized Controlled Trial" (2014) 10 *Journal of Experimental Criminology* 291; Lawrence W Sherman and Heather Strang, "Restorative Justice as Evidence-Based Sentencing," in Joan Petersilia and Kevin R Reitz (eds), *The Oxford Handbook of Sentencing and Corrections* (Oxford University Press 2012) 215–43; Lawrence W Sherman and others, "Effects of Face-to-face Restorative Justice on Victims of Crime in Four Randomized Controlled Trials" (2005) 1 *Journal of Experimental Criminology* 367; Heather Strang and others, "Victim Evaluations of Face-to-Face Restorative Justice Experiences: A Quasi-Experimental Analysis" (2006) 62 *Journal of Social Issues* 281.

⁶⁷ Sherman and others (n 66).

⁶⁸ Sherman and Strang (n 66).

justice conferences significantly increased victims' forgiveness for the offense or reduced their self-blame, restorative justice did significantly reduce victims' vengefulness. Moreover, a followup study indicated that restorative justice also significantly reduced victims' post-traumatic stress symptoms.⁶⁹ Thereby, these studies provide evidence from litigation practice which suggests that facilitating apology may enhance victims' restoration—at least in criminal contexts.

While not technically a field experiment, an illustration of what such an approach might constitute in the domain of private law is provided by the pilot study by Hulst and colleagues,⁷⁰ which tested insurer-initiated initiatives to facilitate contact between victims and offenders in case of traffic accidents. In this investigation, the researchers aimed to address the issue that, in the context of traffic accidents—where the resolution of harm is relegated to insurers—victims frequently indicate perpetrators' lack of rapprochement (that is, their failure to seek contact and acknowledge their predicament) as an important impediment to resolution. To this end, Hulst and colleagues collaborated with motor vehicle insurers to test three insurer-initiated initiatives to facilitate contact between victims and offenders. These initiatives targeted either the offender or the victim with an offer to arrange written communication (through the insurer) between either party. A third initiative offered contact mediated by a major victim association. The goal of the study was to examine if these initiatives could effectively establish contact between these parties, and moreover, if they might thereby facilitate the provision of acknowledgment and apologies. Regrettably, in this instance the initiatives were not successful, for a variety of reasons (such as protagonists already having initiated contact themselves, practical difficulties in implementing the initiatives among insurers, limited number of observations; moreover, the study did not include an untreated control group in order to compare their impacts). Nevertheless, the study provides a useful indication of what a field experiment on relational restoration in personal injury litigation might constitute and how it might be implemented (and also of the difficulties involved in doing so). A forthcoming followup study by the same authors has capitalized on the lessons learned in this pilot, and will in all likelihood provide valuable novel insights into these processes.

These studies illustrate how field experiments can be employed to provide important insight for legal theorizing and practice. By directly testing the impact of treatments in litigation contexts and examining whether they translate into tangible benefits there, field

⁶⁹ Angel and others (n 66).

⁷⁰ Hulst and others (n 5).

experiments enable insights that are directly transposable to litigation practice, greatly enhancing the validity and generalizability of their results. However, their important strengths in these areas do entail some limitations in others. For one, their situation in litigation practice does mean that, relative to other experimental approaches, control over variability is reduced considerably, which leaves field experiments more vulnerable to differences between respondents or cases—which may be sizable in litigation practice, even for similar incidents (for example, even within traffic accidents, cases can vary tremendously in terms of traffic situation, level of fault, amount and type of harm, features of the drivers, and so on). Field experiments may also be restricted by practical limitations. They generally require greater effort and organization, and may suffer important limitations in light of legal restrictions (for example, current legislation is unlikely to permit a trial to coerce apology in some cases and not in others). These aspects mean that field experiments simply may not be feasible for some questions.

<a>EXPERIMENTAL APPROACHES TO PERSONAL INJURY: CONCLUSIONS FOR PRIVATE LAW

The present chapter addressed the question of victims' restoration in personal injury litigation to illustrate how experimental approaches can complement and extend legal theorizing in the domain of private law. It illustrated how empirical research employing experimental vignettes, laboratory experiments, and field experiments can contribute crucial pieces to the puzzle of understanding whether, and how, victims' neglected relational needs should be addressed in future litigation. They do so through their capacity to control variability, to examine causal relationships, and to capture phenomena that occur infrequently (or not yet at all) in legal practice. On the one hand, through these important strengths, experimental legal research provides insight that confirms the prominence of normative and relational concerns in victims' need for restoration in personal injury,⁷¹ consistent with extant legal research.⁷² On the other hand, however, insights from experimental legal research raise questions regarding the value of the theorized initiatives to facilitate apology for redressing these concerns, and for promoting the resolution of personal injury litigation.⁷³ While experimental approaches to

⁷¹ For example, Reinders Folmer and others (n 47).

⁷² Abel (n 5), Carroll and Witzleb (n 5); Hulst and Akkermans (n 5); Hulst and others (n 5); Relis (n 18).

⁷³ For example, Carroll (n 15); Cohen (n 14); Latif (n 14); Shuman (n 14); Vines (n 5); White (n 19).

this question support the prediction that sincere and exhaustive apology can increase satisfaction of victims' normative and relational needs, they cast doubt as to whether the act of doing so will translate into its theorized benefits for the *resolution* of such cases—which, according to such evidence, remains primarily driven by economic outcomes.⁷⁴ Moreover, although such evidence underlines the relational value of exhaustive apologies, insights from experimental approaches cast doubt over whether proposed initiatives to facilitate them are likely to result in such substantive apologies.⁷⁵ And lastly, while apologies may benefit the relational restoration of victims, experimental evidence suggests that their provision may be met less favorably by other legal protagonists, such as judicial decision makers⁷⁶ and attorneys.⁷⁷ While these findings demand further investigation with regard to litigation practice, they do highlight possible limitations to apology which legal theorizing and practice may need to address in order for them to fulfill their remedial potential.

More generally, this chapter illustrates how experimental approaches can constitute a valuable addition to the methodological arsenal of scholars in the domain of private law, with which the theoretical discourse of doctrinal approaches can be supplemented with empirical evidence, to thereby strengthen its argumentation and predictions.⁷⁸ Experimental approaches can enable legal researchers to obtain evidence that speaks to the validity of the assumptions that underlie theorizing or policy in the domain of private law—for example, on the factors that deter transgressions (for example, do liability and penalties promote more careful behavior⁷⁹), the reasons that underlie people's decisions to litigate (for example, does facilitating victims' understanding of their rights promote decisions to pursue litigation⁸⁰), and the way in which law and legal procedures are applied by judicial decision makers (for

⁷⁴ See Reinders Folmer and others (n 47).

⁷⁵ Saulnier and Sivasubramaniam (n 53); also see Joost M Leunissen and others, "The Apology Mismatch: Asymmetries between Victim's Need for Apologies and Perpetrator's Willingness to Apologize" (2013) 49 *Journal of Experimental Social Psychology* 315; Joost M Leunissen and others, "Forecasting Errors in the Averseness of Apologizing" (2014) 27 *Social Justice Research* 322; Karina Schumann, "An Affirmed Self and a Better Apology: The Effect of Self-Affirmation on Transgressors' Responses to Victims" (2014) 54 *Journal of Experimental Social Psychology* 89.

⁷⁶ Jehle and others (n 57); Rachlinski and others (n 57).

⁷⁷ Robbenolt 2008 (n 44).

⁷⁸ See Willem H Van Boom, Pieter TM Desmet and Christopher P Reinders Folmer (eds), *Privaatrecht in het laboratorium: verslag van acht rechtspsychologische experimenten [Private Law in the Laboratory: A Report of Eight Legal-psychological Experiments]* (Boom Juridische Uitgevers 2015).

⁷⁹ See Theodore Eisenberg and Christoph Engel, "Assuring Civil Damages Adequately Deter: A Public Good Experiment" (2014) 11 *Journal of Empirical Legal Studies* 301; Eisenberg and Engel (n 51); Eigen (n 51).

⁸⁰ See Willem H Van Boom, Pieter TM Desmet, and Mark Van Dam, "'If It's Easy to Read, It's Easy to Claim'—The Effect of the Readability of Insurance Contracts on Consumer Expectations and Conflict Behavior" (2016) 39 *Journal of Consumer Policy* 187.

example, to what extent are laws applied consistently and without bias;⁸¹ to what extent are legal claims influenced by evidence⁸²). Thereby, experimental approaches can be employed to enrich legal theorizing on a wide range of questions relevant to private law. Importantly, however, experimental approaches may also be valuable to litigation practice. Firstly, they can be employed to provide stakeholders with valuable insight into extant legal procedure. A case in point is their capacity to illuminate how victims' various needs are (and are not) met in extant litigation designs.⁸³ Such insights may be useful to law and policy makers in light of their objective to "exactly restore the victim."⁸⁴ Similarly, their capacity for identifying mismatches between the perspectives of different legal agents—such as the notion that attorneys' reactions to apologies may be opposed to those of their clients⁸⁵—may be valuable to victim and attorney associations in their efforts to prevent misunderstanding and to ensure that, when in pursuit of their clients' interests, attorneys do not act in ways that oppose their recovery.⁸⁶ Experimental approaches may also be valuable to litigation practice as a means to assess novel reforms or procedures, for example by testing their effectiveness in field experiments.

Through these applications, experimental approaches may contribute to legal theorizing, procedure, and policy that is more strongly rooted in empirical evidence,⁸⁷ and thereby more attuned to the way that legal agents actually think and act (rather than how we want or believe them to). In order to fulfill this potential, however, it is crucial that experimental approaches are employed in ways that maximize their strengths and legal relevance, and that counter their limitations.⁸⁸ Findings from experimental research may often be contingent on the ways in which they represent legal situations and the focal variables within them, and in the outcomes they examine (and the way in which these are measured). Experiments that examine different types of cases (for example, temporary versus permanent harm; incidental encounters versus ongoing relationships), assess different types of outcomes (for example, settlement intentions

⁸¹ See Erik J Girvan, Grace Deason and Eugene Borgida, "The Generalizability of Gender Bias: Testing the Effects of Contextual, Explicit, and Implicit Sexism on Labor Arbitration Decisions" (2015) 39 *Law and Human Behavior* 525; Sommer and others (n 52).

⁸² See Besiki L Kutateladze, Victoria Z Lawson and Nancy R Andiloro, "Does Evidence Really Matter? An Exploratory Analysis of the Role of Evidence in Plea Bargaining in Felony Drug Cases" (2015) 39 *Law and Human Behavior* 431.

⁸³ For example, Reinders Folmer and others (n 47).

⁸⁴ Busnelli and others (n 1).

⁸⁵ Robbennolt 2008 (n 44); also see Relis (n 18).

⁸⁶ For example, Cohen (n 14).

⁸⁷ See Willem H Van Boom, *Door meten tot weten: Over rechtswetenschap als kruispunt [Measurement Brings Knowledge: Law as a Crossroad Science]* (Boom Juridische Uitgevers 2015).

⁸⁸ See Konecni and Ebbesen (n 49).

versus settlement decisions; anticipated versus actual response to apology), or examine different populations (for example, judges, attorneys, victims; law students, general population) may produce different results. This underlines the importance of replication to understand the stability of the observed effects and to identify important moderating variables that may shape their magnitude (for example, how the effect of apology may vary according to its source, timing, and so on). In this process, experimental approaches could be combined with different methods in a process of triangulation, where their collective strengths can counter their individual limitations (for example, developing a theory by combining doctrinal examination of legal sources with qualitative field research in litigation practice; testing it in experimental research; developing policies from the results; testing them in field experiments).

Before closing, it is important to underline that in order to fulfill their potential value for the domain of private law, experimental approaches require the expertise of legal scholars, to ensure that experiments are optimally attuned to the intricacies of legal theory and practice in this domain. Herein lies the bridge between these methods and classical doctrinal approaches to private law, and the considerable advances that may be possible by integrating the two. To reap these benefits, the challenge for the domain of private law is therefore to advance the empirical foundation of legal scholars' work, or to invest in profound collaborations with empirical disciplines. It is this synthesis that will enable a truly substantive, empirical study of law.

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