
The Psychology of International Law: An Introduction

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Abstract

Public international law scholarship opens evermore to social science theories and methodologies, but the implications of cognitive research and behavioural economics have not been systematically explored, even though they have been successfully applied to domestic legal issues and are increasingly used in public policy and regulation. In this symposium, we aim to fill two research gaps: first, international law and economics and international political economy rarely use behavioural insights, while behavioural law and economics lacks international dimensions, and, second, international political psychology sidesteps the importance of international norms. This introduction surveys the main psychological angles employed in the articles of the symposium as well as the difficulties envisioned in this research agenda of applying psychology to international law and using experiments for the study of international law. These difficulties notwithstanding, behavioural studies have generated many insights that have the potential to greatly enrich our understanding of international law.

1 Introduction

Public international law (PIL) scholarship opens evermore to social science theories and methodologies regarding a broad range of questions such as treaty design, custom, soft law, interpretation, effectiveness, substantive norms and international legal theory. Rational choice theory has been largely accepted in law and international relations (IR) scholarship, and economic analysis has been applied to PIL, but the implications of cognitive research and behavioural economics have not been systematically explored,¹ even though they have been successfully applied to domestic legal

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¹ But see some first swallows of application and theorization in Galbraith, 'Treaty Options: Towards a Behavioral Understanding of Treaty Design', 53 *Virginia Journal of International Law* (2013) 309; van

issues and are increasingly used in public policy and regulation.² Behavioural insights have been used in international political psychology, without addressing international norms and mostly confined to security decision-making.³

In this symposium, we aim to fill two research gaps: first, international law and economics and political economy rarely use behavioural insights – behavioural law and economics misses international dimensions, and, second, IR political psychology sidesteps the importance of international norms.⁴ It is time to pull these strings together, further refining our knowledge of international law's functions. As Anne-Marie Slaughter urged years ago in a different context: 'International Relations as a social science approach can make International Lawyers better lawyers.'⁵ We agree, without dismissing doctrinal work as a *sine qua non* for understanding the interests and incentives of international law. The internal perspective of the law remains critical, but psychology enriches it.

This introduction surveys the main psychological angles employed in the constituent articles that appear in this symposium as well as the difficulties envisioned in this research agenda. Readers unfamiliar with behavioural literature are thus advised to consult the introduction and references therein when reading the different contributions.

2 Behavioural Research: Preferences, Heuristics and Biases

The rational choice paradigm employed in economic and institutional theory has been thoroughly challenged since the 1970s by psychological experimental research, with

Aaken, 'Behavioral International Law and Economics', 55 *Harvard International Law Journal* (2014) 421; Broude, 'Behavioral International Law', 163 *University of Pennsylvania Law Review* (2015) 1099; van Aaken and Broude, 'Behavioral Economics and International Law', in E. Kontorovich and F. Parisi (eds), *Economic Analysis of International Law* (2016) 249; Broude and Moses, 'The Behavioral Dynamics of Positive and Negative Listing in Services Trade Liberalization: A Look at the Trade in Services Agreement (TiSA) Negotiations', in M. Roy and P. Sauvé (eds), *Research Handbook on Trade in Services* (2015) 385; Shereshevsky and Noah, 'Does Exposure to Preparatory Work Affect Treaty Interpretation? An Experimental Study on International Law Students and Experts', 28(4) *European Journal of International Law (EJIL)* (2018) 1287; van Aaken, 'Behavioral Aspects of the International Law of Global Public Goods and Common Pool Resources', 112 *American Journal of International Law* (2018) 67; Broude and Shereshevsky, 'Explaining the Practical Purchase of Soft Law: Competing and Complementary Behavioral Hypotheses', in H. Grant Cohen and T. Meyer (eds), *International Law as Behavior* (forthcoming).

² Instead of many, see E. Zamir and D. Teichman (eds), *The Oxford Handbook of Behavioral Economics and the Law* (2014); E. Zamir and D. Teichman, *Behavioral Law and Economics* (2018).

³ R. McDermott, *Political Psychology in International Relations* (2004); J. Davis (ed.), *Psychology, Strategy and Conflict* (2013). International relations (IR) scholarship has revisited the incorporation of behavioural insights, without directly addressing international law. See Hafner-Burton *et al.*, 'The Behavioral Revolution and International Relations', 71(S1) *International Organization (IO)* (2017) 1.

⁴ The articles in this symposium are significantly elaborated outcomes of a symposium held in January 2018 at the Hebrew University of Jerusalem under the auspices of its Faculty of Law and the Leonard Davis Institute for International Relations and in cooperation with the University of St. Gallen.

⁵ Slaughter, 'International Law and International Relations: Millennial Lectures', 285 *Receuil de Cours / Hague Academy of International Law* (2001) 9, 26.

revolutionary impact. This research shows that, in contrast to the expected utility model used in economics and IR, actors are only boundedly rational and, systematically, have other-regarding preferences (both positive and negative). Their cognitive abilities sometimes lead to decisions that stray from the ‘perfect rationality’ of probability calculi. Furthermore, decisions depend largely on contexts and framing effects that depart from the rationalist axiom of ‘descriptive invariance’.⁶

The ‘psychology of international law’ embraces these departures from rational choice assumptions, coming closer to how actors actually behave. Much – though not all – of this collection derives from experimental or survey research, employed to observe (individual or collective) actors’ cognition and real preferences and thus confer a high degree of internal validity to their findings in controlled circumstances. Many experiments show systematic digressions from rationality assumptions, with significant implications for international law. Their external validity – the generalized applicability of implications beyond specific situations and outside of the laboratory – should be approached with caution.⁷ We address this issue later on but now turn to various behavioural insights that are broadly employed by this issue’s contributors.

Departures from rational choice assumptions of self-interested utility maximization have been grouped into three categories: bounded willpower, bounded self-interest and bounded rationality. We do not address bounded willpower here as it is the least substantiated by research,⁸ and less evidently relevant to PIL, and turn first to bounded self-interest. Experiments on social preferences often use rational choice game theory, including, in particular, variations on the ‘ultimatum game’ in which the proposer makes an offer of how to share a fixed amount of money, which the recipient can either accept or reject. If the recipient rejects, both get nothing. A *homo economicus* model would predict the proposer to offer the smallest monetary unit, and the recipient to accept it. Yet experiments do not obtain this finding: actors make and accept offers with greater distribution. Typically, this is attributed to fairness concerns.⁹ Across game types and individual studies, subjects consistently behave in ways that are not anticipated by rationalist assumptions of narrow self-interest, by dividing resources in reflection of fairness concerns rather than maximizing personal gain. Moreover, repeated findings show that individuals systematically engage in collective action to provide local public goods without an external authority enforcer,¹⁰ labelling such

⁶ Cookson, ‘Framing Effects in Public Goods Experiments’, 3 *Experimental Economics* (2000) 55, at 55; Tversky and Kahneman, ‘The Framing of Decisions and the Psychology of Choice’, 211 *Science* (1981) 453.

⁷ See Dunoff and Pollack, ‘Experimenting with International Law’, 28 *EJIL* (2018) 1317.

⁸ See Zamir and Teichman, *Behavioral Law*, *supra* note 2, at 87–93; indeed, they prefer to focus on economic models assuming ‘thin’, or cognitive rationality, and ‘thick’, or motivational rationality and deviations therefrom (at 11). See also Teichman and Zamir, ‘Nudge Goes International’ 30 *EJIL* (2019) 1263.

⁹ See generally Güth, Schmittberger and Schwarze, ‘An Experimental Analysis of Ultimatum Bargaining’, 3 *Journal of Economic Behavior and Organization* (1982) 367.

¹⁰ Ostrom, ‘A Behavioral Approach to the Rational Choice Theory of Collective Action’, 92 *American Political Science Review* (1998) 1, at 2.

outcomes as even ‘better than rational’.¹¹ These outcomes occur where reciprocity, reputation and trust help overcome strong temptations of short-run self-interest.¹² These experiments suggest that rationalist theories may be faulted for neglecting: (i) reciprocity *strictu sensu*; (ii) the distinction between (perceived) fair and unfair sanctions; (iii) altruism, spitefulness and equality preferences; (iv) the roles of trust and communication; (v) the intentions of the other players; and (vi) the ‘type’ of actor. Further, it has been suggested that these factors are ‘probably relevant in all domains in which voluntary compliance matters’.¹³

As for bounded rationality, the central concept is the recognition that human cognitive capabilities are neither perfect nor infinite, even when self-regarding. The human brain employs shortcuts in judgment and decision-making that diverge from expected utility theory. Numerous such cognitive biases and heuristics have been identified in a variety of decision-making contexts, constituting the hard core of the field, and are used throughout the symposium articles.¹⁴

Perhaps the single most important insight of psychology in this regard derives from prospect theory.¹⁵ Prospect theory questions the validity of the Coase theorem, which both expresses and relies upon the idea of perfect rationality. In Coasean economics, in the absence of transaction costs, the initial assignment of resources or entitlements is not determinative of their ultimate allocation. Bargaining between rational actors will assign the entitlements efficiently to the actor to whom they hold the most value, regardless of the starting point.¹⁶ The Coase theorem is elemental for classical economic analysis of law because it neutralizes the psychological contexts of human interactions. Indeed, it is the basis of rational choice’s parsimony. Nevertheless, experiments have shown repeatedly, in varying circumstances, that initial entitlements matter greatly in influencing actors’ decisions, especially their willingness to part with their entitlement. In Coasean terms, \$10 (or any other thing of value; in international affairs, this could be territory, resources or other assets of political or symbolic importance) has equal worth, whether gained or lost. Yet, in real life, people do not regard losses and gains of equal size indifferently. For example, they will often invest more in the prevention of loss than in the generation of gains of the same amount. This is the logic that underlies a variety of related terms that derive or are otherwise related to the ideas of prospect theory, such as loss aversion, the endowment effect¹⁷ and framing

¹¹ Cosmides and Tooby, ‘Better Than Rational: Evolutionary Psychology and the Invisible Hand’, 84 *American Economic Review* (1994) 327.

¹² Ostrom, *supra* note 10, at 3.

¹³ Fehr and Rockenbach, ‘Detrimental Effects of Sanctions on Human Altruism’, 422 *Nature* (2003) 137.

¹⁴ For an excellent overview, see Zamir and Teichman, *Behavioral Law*, *supra* note 2, at 19–138. The burgeoning literature in experimental psychology and economics is too much to reference. We would advise the reader to consult handbooks such as Zamir and Teichman’s.

¹⁵ Kahneman and Tversky, ‘Prospect Theory: An Analysis of Decision under Risk’, 47 *Econometrica* (1979) 263.

¹⁶ Coase, ‘The Problem of Social Cost’, 3 *Journal of Law and Economics* (1960) 1.

¹⁷ Kahneman, Knetsch and Thaler, ‘Experimental Tests of the Endowment Effect and the Coase Theorem’, 98 *Journal of Political Economy* (JPE) (1990) 1325; C. Sunstein (ed.), *Behavioral Law and Economics* (2000).

effects. These phenomena might impede consent and cooperation, not only in contract law but also in international law.

There are additional psychological kinks in rationality that are systematically substantiated by scientific experiments in cognitive psychology. For example, under the availability bias, 'people tend to think that risks are more serious when an incident is readily called to mind'.¹⁸ The availability of information can have broader cognitive effects on decisions.¹⁹ Under the hindsight bias, people tend to overestimate the initial probability of an event once they are aware that the event has occurred;²⁰ the closely linked 'outcome bias' means that people evaluating the quality of decisions of other actors made in conditions of uncertainty have difficulty ignoring the decisional outcome.²¹ 'Probability matching' is a proven tendency of actors to make choices that match the relative frequency of events, instead of utility-maximizing choices that would presuppose the occurrence of the most probable (for example, when faced with a six-sided die with four red sides and two white sides and asked repeatedly to guess the colour that would be rolled, people choose red two-thirds of the time instead of the utility-maximizing solution that would choose red all of the time).²² When a choice involves both benefits and costs, prospects and risks, people often prefer to avoid making any active decision – that is, to stick to the *status quo*. Relatedly, people feel greater responsibility for outcomes that they have actively brought about than for outcomes that they cause by omission ('omission bias').²³ Thus, many people would refrain from vaccinating their child against a disease, even though the probability of death from the disease is much higher than death from the vaccine.²⁴

Like prospect theory in general, availability bias, hindsight bias, probability matching, *status quo* and omission biases and other biases and heuristics that continue to be researched in this ever-vibrant field of study hold important lessons for the design and functioning of law, in general, and for international law, in particular. A taste of these will be set out in the symposium articles, which we briefly describe in the next part, each one demonstrating one or more applications as exemplars and directions for future research.

¹⁸ Sunstein, *ibid.*, at 5.

¹⁹ Tversky and Kahneman, 'Availability: A Heuristic for Judging Frequency and Probability', 5 *Cognitive Psychology* (1973) 207.

²⁰ Fischhoff, 'Hindsight Is Not Equal to Foresight: The Effect of Outcome Knowledge on Judgment under Uncertainty', 1 *Journal of Experimental Psychology Human: Perception and Performance* (1975) 288; Rachlinski, 'A Positive Psychological Theory of Judging in Hindsight', 65 *University of Chicago Law Review* (1998) 571.

²¹ Baron and Hershey, 'Outcome Bias in Decision Evaluation', 54 *Journal of Personality and Social Psychology* (1988) 569.

²² West and Stanovich, 'Is Probability Matching Smart? Associations between Probabilistic Choices and Cognitive Ability', 31 *Memory and Cognition* (2003) 243.

²³ See Zamir and Teichman, *Behavioral Law*, *supra* note 2, at 48ff.

²⁴ See Ritov and Baron, 'Reluctance to Vaccinate: Omission Bias and Ambiguity', 3 *Journal of Behavioral Decision Making* (1990) 263.

3 The Articles, Jointly and Severally

Despite some notable individual efforts,²⁵ there is currently a deficit in the applications of behavioural economics and cognitive and social psychology to international law. This collection aims to lead the way forward towards filling this gap by presenting a range of complementary, cross-cutting approaches, from descriptive to explanatory to prescriptive, from theoretical to experimental, from general to specific. While each of the articles stands in its own right, they are best read together, and they are examples of the potential of applying behavioural insights to the study of international law. Although they address very different issues, they can be seen as important experimental insights in the respective issue area discussed and initiate further research.

As a general overture to the symposium, Anne van Aaken advocates the application of behavioural insights and experimental methods to the study of international legal theory, in ways that have not existed to this point.²⁶ Her article applies those insights to socio-legal international theory that has *grosso modo* two important background paradigms with several variants: rationalist and constructivist. In both, fundamental assumptions regarding the behaviour of actors are made. However, regardless of the theoretical standpoint, both fall short of experimental evidence about their behavioural assumptions. Van Aaken uses experimental evidence provided by public good games as a conceptualization of how social order is constructed and upheld in systems without a central authority such as international law. It aims to illuminate the behavioural basis of important building blocks of international cooperation and law, by discussing preferences of states and strategic interaction, reciprocity, sanctions, communication and trust as well as consent and legitimacy, reflecting on what the experimental insights reveal about the assumptions of rationalist and constructivist approaches to international legal theory.

Doron Teichman and Eyal Zamir move from behavioural legal theory to behavioural implications for international law-making and effectiveness,²⁷ with a focus on international ‘nudges’, which are defined as ‘low-cost, choice-preserving, behaviorally informed approaches to regulatory problems’.²⁸ They describe the potential default effects of opt-out/in clauses in multilateral treaties, building, *inter alia*, on existing research,²⁹ and the ‘nudge’ roles of goal setting, deadlines and rankings, in a rich array of examples, ultimately arguing for the use of nudges in international law and relations.

Moving from general and foundational explorations to specific applications, Anton Strezhnev, Beth A. Simmons and Matthew D. Kim take an experimental approach, testing the authority of international law against the influence of political figures – ‘elite cues’.³⁰ In the case vignettes in the USA, India and Australia – three large

²⁵ See note 1 above.

²⁶ Van Aaken, ‘Experimental Insights for International Legal Theory’ 30 *EJIL* (2019) 1237.

²⁷ Teichman and Zamir, *supra* note 8.

²⁸ Sunstein, ‘Nudges.Gov: Behaviorally Informed Regulation’, in E. Zamir and D. Teichman (eds), *The Oxford Handbook of Behavioral Economics and the Law* (2014) 719, at 719.

²⁹ Such as Galbraith, *supra* note 1.

³⁰ Strezhnev, Simmons and Kim, ‘Rulers or Rules? International Law, Elite Cues and Public Opinion’ 30 *EJIL* (2019) 1281.

democracies coping with pressures in the highly topical and sensitive area of international refugee law – they find a surprising resilience of public opinion adherence to international law commitments over contrary political leadership. These findings are not without significant qualifications, insofar as particular political allegiances may work the other way around, but they are of potential importance for the normative value of international law in times of ‘backlash’.

Moving into even more experimental areas, Tomer Broude and Inbar Levy address decision-making in international humanitarian law contexts, such as targeting and other operational decisions, thus focusing on the individual decision-making level (especially the military commander, legal counsel and *ex post* investigator) and its interaction with international law.³¹ How do such decisions – usually relating to proportionality and reasonableness – taken in real-time, *ex ante* and under conditions of extreme uncertainty, line up with subsequent assessments by investigators? Such investigators are required to evaluate the quality of military decisions under international law as being made with respect to the information available at the time, without recourse to knowledge of the actual result. Through experimental research, the authors demonstrate that military investigators are generally unable to ignore exposure to knowledge about outcomes, susceptible to ‘hindsight bias’ and ‘outcome bias’, as the case may be. They also suggest that investigators with expertise, especially those with field experience, are less susceptible to these biases. This can have significant implications regarding investigation procedures in this area, as explored in the article’s conclusions.

Moshe Hirsch moves to a level of analysis that bridges the distance between individuals and the way they see themselves in society.³² Having recourse to the relatively novel notion of cognitive sociology, he juxtaposes international legal commitments made by states with deep-seated social norms held by and within social groups, highlighting the impact of socio-cognitive biases on widespread non-compliance with international treaties prohibiting racial discrimination. Empirical studies reveal that identification with a social group is often associated with discriminatory treatment towards out-group members and is not necessarily motivated by hostility but, rather, by positive favouritism towards in-group members. Cognitive sociology literature emphasizes that socio-cultural features affect deeply rooted cognitive processes through which we perceive and interpret reality (including the behaviour of people belonging to other racial groups). Hirsch explores some international legal strategies aimed at mitigating racial discriminatory processes. Socio-cognitive analysis indicates that the mere establishment of new international legal obligations is not likely to significantly reduce racial discrimination. A combination of legal and social strategies is required to cope with this important task.

³¹ Broude and Levy, ‘Outcome Bias and Expertise in Investigations under International Humanitarian Law’ 30 *EJIL* (2019) 1303.

³² Hirsch, ‘Cognitive Sociology, Social Cognition and Coping with Racial Discrimination in International Law’ 30 *EJIL* (2019) 1319.

Finally, Sergio Puig is concerned with the psychological biases that may occur in international adjudication in the application of international norms.³³ Focusing on individual (international) judicial decision-making, the unit of analysis here is clear-cut. Yet systematic deviations from rationality in judicial decision-making have been shown in domestic legal systems and in international arbitration. Such effects are ideal for experimental and empirical investigation and, if confirmed, for the application of ‘debiasing’ techniques. Puig focuses on international economic law, showing, for example, how party-appointed arbitrators in international investment law may be affected by ‘affiliation effects’, a context where ‘blinding’ appointments could be an effective way to counter the cognitive predisposition to favour the appointing party. In international tax disputes, decision-makers are susceptible to ‘anchoring effects’ calling for final offer or pendulum arbitration (each party discloses its final offer, and the arbitrator’s task is simply to pick one of the two proposals). Puig effectively demonstrates the potential power of psychology on international legal design.

4 Challenges Common to the Behavioural Research Agenda

The articles in this issue cover a broad range of subject areas in international law and different methods. They all share, however, the dedication to the empirical (and experimental, where feasible and appropriate) analysis of the behaviour that is relevant to international law.³⁴ At the same time, they share some strongly interrelated methodological challenges that must be recognized.

The first challenge common to most of the articles, which impacts upon the choice of research questions and methods, is the relevant unit of analysis. Whose behaviour is at issue? Is it the state as a ‘black box’ or is it individual actors, such as judges, political leaders, military commanders, trade negotiators or other individuals, whose actions and decisions are attributable to the state under international law? Are we concerned with ‘elite’ decision-makers, experts or the general public? Or is it small decision-making groups, acknowledging that many decisions regarding international law-related conduct are made by such groups and that group psychology is often different from individual decision-making?³⁵ We believe that all units of

³³ Puig, ‘Debiasing International Economic Law’ 30 *EJIL* (2019) 1339.

³⁴ The behavioural approach follows the epistemology of critical rationalism or positivism as advanced by Karl Popper, holding that scientific theories and any other claims to knowledge can and should be rationally criticized and (if they have empirical content) can and should be subjected to tests that may falsify them. K. Popper, *Logik der Forschung* (3rd edn, 1969) (German original, *The Logic of Scientific Discovery* as translated). There are other philosophy of science approaches and methodologies in IR. See P.T. Jackson, *The Conduct of Inquiry in International Relations: Philosophy of Science and Its Implications for the Study of World Politics* (2010). And others that are critical about the ‘scientific method’. J.W. Davis, *Terms of Inquiry: On the Theory and Practice of Political Science* (2005), especially ch 5. We submit that, even if falsification is rejected as a methodology, empirical knowledge derived from experiments can still be of use for the study of international law.

³⁵ Kerr, MacCoun and Kramer, ‘Bias in Judgment: Comparing Individuals and Groups’, 103 *Psychological Review* (1996) 687. With respect to international judicial decision-making, focusing on ‘conformity effects’, see Broute *supra* note 1, at 1143–1149; ‘Behavioral International Law’, *supra* note 1, at 445–449.

analysis are relevant to the psychology of international law. Much of international law decision-making is made, in essence, by individuals or small decision-making groups, while the very term 'state conduct' implies that states are regularly assimilated to individual actors. Whereas rational choice and public choice have long explored domestic political processes and interactions between national and international politics (the 'two-level game'),³⁶ behavioural international political economy is still in its earliest stages – even 'embryonic'³⁷ – though potentially of great importance for PIL. The two-level game framework can thus be used with rationalist assumptions (as it has been done hitherto) or with behavioural assumptions.³⁸ For the latter, we can only encourage more research, which is admittedly complex.

The second challenge derives from the experimental basis of the core of behavioural research. As demonstrated by some of the studies in this symposium, as well as by others, applying experimental psychology and its methods to international law, international legal theory and international relations is not beyond reach.³⁹ Some of the experimental results have intuitive appeal and have also been confirmed by field studies (for example, in the realm of the commons).⁴⁰ Just as people have always washed their hands (albeit insufficiently and for the wrong reasons), it is only since the discoveries of Rudolf Virchow and Ignaz Semmelweis that we know why hand washing prevents illness, and we have changed habits accordingly. Experiments can have, through analysis of decision-making in controlled conditions, high internal validity and the potential to uncover causal effects, but they may suffer from external validity problems due to several reasons, as discussed below. Still, in combination with other research methods, experiments are a very useful complementary tool for informing about decision-making under controlled conditions, focusing on the smallest or otherwise applicable unit of decision-making.

³⁶ Putnam, 'Diplomacy and Domestic Politics: The Logic of Two-Level Games', 42 *IO* (1988) 427. This is a fundamental paradigm explaining international trade treaties. Grossman and Helpman, 'Protection for Sale', 84 *American Economic Review* (1994) 833; Grossman and Helpman, 'Trade Wars and Trade Talks', 103 *JPE* (1995) 675. For an international law analysis, see van Aaken and Trachtman, 'Political Economy of International Law: Towards a Holistic Model of State Behavior', in A. Fabricotti (ed.), *Political Economy of International Law: A European Perspective* (2016) 9.

³⁷ Schnellenbach and Schubert, 'Behavioral Political Economy: A Survey', 40 *European Journal of Political Economy* (2015) 395.

³⁸ For a behavioral political economy explanation of protectionist trade policies, see van Aaken and Kurtz, 'Beyond Rational Choice: International Trade Law and the Behavioral Political Economy of Protectionism', 22 *Journal of International Economic Law* (2019) 601, with further references. It is notable that the founders of the rationalist political economy of trade theory, probably the predominating theory, Grossman and Helpman, recently turned to other explanatory factors, close to psychological research. Grossman and Helpman, 'Identity Politics and Trade Policy', NBER Working Paper no. 25348 (2018), at 1, available at www.nber.org/papers/w25348. To be sure, identity is not a new notion in economics, starting with Akerlof and Kranton, 'Economics and Identity', 115 *Quarterly Journal of Economics* (2000) 715.

³⁹ For discussions in international law, see Broude, *supra* note 1, at 1133–1134; Dunoff and Pollack, *supra* note 7. For a discussion in IR, see Powell, 'Research Bets and Behavioral IR', 71(S1) *IO* (2017) 265.

⁴⁰ Ostrom, *supra* note 10.

Applying experimental insights to individual decision-makers whose acts are in turn attributed to the state (for example, treaty negotiators, diplomats or state officials) or to international judges is no major problem – the unit of analysis is the individual (as in most of the experiments).⁴¹ Applying experimental insights to the state is more problematic since aggregation problems arise and face the same criticism as rational choice theory when applied to the state as such, reverting to the unit of analysis problem. Generally, there are two ways of dealing with this issue: either simply to attribute non-standard preferences, beliefs and decision-making directly to states or to maintain the analysis on the individual level and face the problem of aggregation from individual to collective decision-making.⁴² Breaking up the black-box state and applying experimental insights to national political processes is still in its infancy and surely will confront significant obstacles.⁴³ Furthermore, purely rationalist theories of state action reflect the outdated assumptions of the pre-behavioural revolution era.⁴⁴ Rather than insisting that behavioural researchers justify extrapolating from experimental insights regarding individuals, states or other collectives, it is precisely this disconnect – of presumed state rationality – that needs justification. Nevertheless, other means of inquiry must surely complement experimental research, such as field studies and other empirical research.

The third significant challenge or constraint is that of external validity. To what extent can conclusions from experimental research and other behavioural empirical studies, with clearly circumscribed research questions, circumstances and subjects, be generalized and carried over to other contexts and to the real world? This is an overarching problem in psychological experimental and otherwise empirical research, which is far from unique to international law. We therefore submit that the usual disclaimers apply regarding methodology, research design and the implications of results (such as their predictive value, which should be carefully circumscribed). The external validity issue should not be a barrier to behavioural research, merely a permanent speed bump on the way to enhanced knowledge.⁴⁵

Fourth, an issue arising throughout the articles is the question of how international law, in comparison with social norms, practices, beliefs or other authority (such as political figures) affects behaviour relevant to international law. Does the ‘choice architecture’ of international law and its ‘nudges’ influence the behaviour of the relevant actors and, if so, how? Fifth, and not unconnectedly, how does international law interact with the domestic sphere in a behavioural sense? Given that much of the

⁴¹ Franck *et al.*, ‘Inside the Arbitrator’s Mind’, 66 *Emory Law Journal* (2017) 1115; Broude and Levy, *supra* note 31.

⁴² Powell, *supra* note 39.

⁴³ Schnellenbach and Schubert, *supra* note 37; Zamir and Teichman, *Behavioral Law*, *supra* note 2, at 393–409.

⁴⁴ Hafner-Burton *et al.*, *supra* note 3.

⁴⁵ For a more critical discussion of the external validity problem, see Dunoff and Pollack, *supra* note 7.

effectuation of international law takes place nationally, how does it influence decision-makers? And how and who would be affected?

These are all questions that manifest themselves to different degrees in the various articles. This does not provide a complete defence, which, in any case, is not possible here, but, against this backdrop, we offer three considerations in favour of drawing on psychology's insights. First, other fields studying international behaviour already have done so. The field of IR has long used insights from political psychology, and, recently, IR scholars have turned to behavioural research in particular. Moreover, insights from behavioural economics have been applied to law concerning corporate actors.^{46, 47} Second, purely rationalist theories of state action reflect the assumptions of the pre-behavioural revolution era. Rather than insisting that behavioural researchers justify extrapolating from individuals to states, it is precisely this disconnect – of presumed state rationality – that needs justification. Third, old school rationalist accounts assume a unitary state, despite the growing evidence that states are not opaque billiard balls interacting with one another but, rather, the collection of a multiplicity of relevant 'liberal' actors.⁴⁸ A striking articulation of this view is Slaughter's metaphor of international law as a 'Lego World' in which different actors can be looked at separately and, thus, can be studied individually (or in groups), including experimentally.⁴⁹

Social scientists mostly do not only want to describe and explain but also to predict. This has long been the mantra of the rational choice approach, where it has been argued that what matters most is the accuracy of the prediction of the models, not the reality of its assumptions.⁵⁰ This argument is only partially convincing. Clearly, behavioural insights add complexity and, maybe, are context dependent. But, by explaining more accurately, they may also deliver better predictions. For example, experimental insights are better at predicting the behavioural effect of default rules or at predicting under what circumstances cooperation will take place in a commons problem.

⁴⁶ See, e.g., the literature on 'boundedly rational firms'. Zamir and Teichman, *Behavioral Law*, *supra* note 2, at 383–387; Engel, 'The Behaviour of Corporate Actors: How Much Can We Learn from the Experimental Literature?', 6 *Journal of Institutional Economics* (2010) 445.

⁴⁷ Decision-making in groups and, thus, organizations can cut both ways: alleviate biases and heuristics or strengthen them. Cf. Camerer and Malmendier, 'Behavioral Economics of Organizations', in P. Diamond and H. Vartiainen (eds), *Behavioral Economics and its Applications* (2007) 235.

⁴⁸ Moravcsik, 'Taking Preferences Seriously: A Liberal Theory of International Politics', 51 *IO* (1997) 516; Slaughter, 'A Liberal Theory of International Law', 94 *Proceedings of the Annual Meeting of the American Society of International Law* (2000) 240.

⁴⁹ Slaughter, 'Remarks, The Big Picture: Beyond Hot Spots and Crises in Our Interconnected World', 1 *Pennsylvania State Journal of Law and International Affairs* (2012) 286.

⁵⁰ See Friedman, 'The Methodology of Positive Economics', in M. Friedman (ed.), *Essays in Positive Economics* (1953) 3. He argues for this because of simplicity (omitting all irrelevant details) in being able to predict

5 Conclusion

Of course, material interests and strategic interaction remain of cardinal importance, as posited by rational choice theory. But psychological realities have been underappreciated, even though the experiments yield more factors to consider – more, perhaps better, tools in the toolbox – that may enable sustained cooperation in the international realm. We firmly believe that we can show that a behavioural research agenda can add much to the question of ‘how international law works’;⁵¹ a purely rationalist account being unable to capture the intricacy of how law comes about and how it affects relevant actors.

Behavioural insights also have the potential to bridge the gap between rationalist and constructivist theories of international law. Behavioural economics has a rationalist starting point but hints at ideas long advanced by constructivist scholars, thereby opening up opportunities for dialogue.⁵² Constructivists have long questioned the rationalist account of preference formation, proposing an alternative model that emphasizes the social nature of preferences.⁵³ They have also long recognized the significance of framing⁵⁴ and emphasized communication and trust-building institutions, all while presuming the effectiveness of symbolic and fair sanctioning by independent third parties. Behavioural research may confirm at least some tenets of the constructivist school, while providing empirical validation that can itself refine its analytic insights. At the same time, experimental research may refine rationalists’ emphasis on the roles of strong reciprocity and conditional cooperation.

Experimental research is still relatively young. The design of many behavioural experiments is ill-suited to answer with precision important open questions in international law. More research is needed, including more tailor-made experiments. Despite this, it has generated many insights that have the potential to enrich our understanding of international law.

at least as much as an alternative theory as well as requiring less information (at 13, 14) and fruitfulness in the precision and scope of its predictions and in its ability to generate additional research lines (at 10).

⁵¹ A. Guzman, *How International Law Works: A Rational Choice Theory* (2008).

⁵² Cf. Hafner-Burton *et al.*, *supra* note 3, at 3.

⁵³ For a comparison between rationalist and constructivist approaches, see Fearon and Wendt, ‘Rationalism v. Constructivism: A Skeptical View’, in W. Carlsnaes, T. Risse and B.A. Simmons (eds), *Handbook of International Relations* (2002) 52.

⁵⁴ See Finnemore and Sikkink, ‘International Norm Dynamics and Political Change’, *52 IO* (1998) 887.