Winter Vol. 72 No. 4 (2021) 651–681 Article DOI: 10.53386/nilq.v72i4.920



Putting behavioural economics in its place: the new realism of law, economics and psychology and its alternatives

Sabine Frerichs

Vienna University of Economics and Business Correspondence email: sabine.frerichs@wu.ac.at

ABSTRACT

The behavioural turn in economics has spilled over into the field of law and economics. Some scholars even consider behavioural economics a variety of new legal realism, invoking earlier efforts to promote law as a behavioural and social science. In fact, behavioural economics works towards more realistic assumptions about human behaviour by drawing on empirical research methods, namely economic experiments. However, not all realisms are alike. Much of the mainstream of behavioural economics is inspired by cognitive psychology, which entails a move from behaviour to cognition and, ultimately, to brains. For scholars with a socio-legal background, legal realism rather points in the opposite direction: to the social contexts and institutional frameworks that shape individual behaviour. By exploring alternative options for a new realism at the intersection of law, economics, and related disciplines, this article exposes the relative neglect of institutions in behavioural economics and the tendency to reduce them to a corrective for cognitive biases in applications to law. At the same time, it provides a broad overview of different varieties of realism next to behavioural-economic ones.

Keywords: realism; law; behaviour; institutions; psychology; behavioural economics; law and neuroscience; institutional economics; socioeconomics; sociology.

INTRODUCTION: BEHAVIOURAL ECONOMICS AS NEW LEGAL REALISM

Behavioural economics is a fast-growing research field which aims to make economics more realistic. Instead of starting from a narrow understanding of 'economic man' as a fully-informed, self-interested, and entirely consistent utility maximiser, it aims to provide a psychologically more accurate account of economic decision-making. The change in perspectives has implications for law and public policy,

and the field of 'behavioural law and economics' is gaining increasing attention.¹

Behavioural economics has been presented as a variety of 'new legal realism'.² Under this label Nourse and Shaffer lump together different types of scholarship – behavioural, contextual, and institutional – which share an 'opposition to neoclassical law and economics' theories of judging, its models of the individual and the state, and its approach to scholarship'.³ By invoking legal realism, behavioural economics is linked with a scholarly tradition that moved the study of law towards the social sciences by turning to empirical research methods.⁴ However, behavioural economics is not, in the first place, about greater realism in law, but about greater realism in economics. If there is a common denominator, it is a critique of legal and economic scholarship that prioritises formal models and abstract reasoning over an empirical engagement with complex social realities.

This article aims to put behavioural economics into perspective by demonstrating the range of possibilities to address questions at the intersection of law and economics in a realistic way. While there seems to be a strong tendency in contemporary scholarship to link law with economics, economics with psychology, and psychology with neuroscience, this is by no means the only option to bring legal realism up to date. Institutionalist approaches to law, economics, and society are no less empirical in orientation while they adequately contextualise human behaviour and, in some respects, seem to be more in line with the legal realist tradition.

The argument is structured as follows: the second section introduces behavioural economics, relates it to the neighbouring fields of experimental economics and neuroeconomics, and contrasts it with alternative approaches in institutional economics and socioeconomics. The third section revisits contributions and legacies of American legal realism, which promoted the study of law as empirical behaviour, and explains how behavioural research has changed over time and may cover

¹ Cass R Sunstein (ed), Behavioral Law and Economics (Cambridge University Press 2000); Joshua C Teitelbaum and Kathryn Zeiler (eds), Research Handbook on Behavioral Law and Economics (Edward Elgar 2018); Eyal Zamir and Doron Teichman (eds), Oxford Handbook of Behavioral Economics and the Law (Oxford University Press 2014); Eyal Zamir and Doron Teichman, Behavioral Law and Economics (Oxford University Press 2018).

² Daniel A Farber, 'Toward a new legal realism' (2001) 68 University of Chicago Law Review 279; Thomas J Miles and Cass R Sunstein, 'The new legal realism' (2008) 75 University of Chicago Law Review 831; Victoria Nourse and Gregory Shaffer, 'Varieties of new legal realism: can a new world order prompt a new legal theory?' (2009) 95 Cornell Law Review 61.

³ Nourse and Shaffer (n 2 above) 70.

⁴ Miles and Sunstein (n 2 above).

very different things. The fourth section outlines research perspectives in behavioural law and economics and juxtaposes them with other realist ways of doing law and economics, in particular institutionalist strands of scholarship. The fifth section focuses on the intersection of law and psychology and demonstrates the different directions that behavioural realism takes based on cognitive and social psychology and their interdisciplinary extensions. The concluding section sums up by putting behavioural economics in its place next to other forms of realism and namely more institutional approaches.

REALISM IN ECONOMICS: INTRODUCING BEHAVIOURAL AND INSTITUTIONAL APPROACHES

In behavioural economics, axiomatic assumptions about rational choice,⁵ which are the cornerstone of neoclassical economics, are replaced with more realistic psychological assumptions derived from observable behaviour.6 This 'psychological realism'7 is key in selling behavioural economics to scholars and practitioners. Other interpretations of realism that are common in empirical social science are less prominent in behavioural economics. This selectivity is often not recognised in the field and rarely explicitly addressed. In principle, '[a]ssumptions can be of a psychological, sociological, or institutional type - it is not only psychology that is important to behavioral economics'.8 In practice, the institutional dimension is relatively neglected in today's mainstream behavioural economics.9 To demonstrate what different pathways a more realistic approach to economic behaviour and action can take, this section compares two lines of research: behavioural, experimental and neuroeconomics on the one hand and institutional economics and socioeconomics on the other.

⁵ Tom Burns and Ewa Roszkowska, 'Rational choice theory: toward a psychological, social, and material contextualization of human choice behavior' (2016) 6 Theoretical Economics Letters 195.

⁶ Colin F Camerer, 'Behavioural economics: reunifying psychology and economics' (1999) 96 Proceedings of the National Academy of Sciences of the United States of America 10575.

⁷ Colin F Camerer and George Loewenstein, 'Behavioral economics: past, present, future' in Colin F Camerer, George Loewenstein and Matthew Rabin (eds), *Advances in Behavioral Economics* (Princeton University Press 2004) 3; Matthew Rabin, 'An approach to incorporating psychology into economics' (2013) 103 American Economic Review 617, 617.

⁸ Morris Altman, 'Introduction' in Morris Altman (ed), *Handbook of Contemporary Behavioral Economics: Foundations and Developments* (Routledge 2015) xv.

⁹ Sabine Frerichs, 'What is the "social" in behavioural economics? The methodological underpinnings of governance by nudges' in Hans-W. Micklitz, Anne-Lise Sibony and Fabrizio Esposito (eds), *Research Methods in Consumer Law: A Handbook* (Edward Elgar 2018) 428.

Behavioural, experimental and neuroeconomics

Behavioural economics is best known for its criticism of neoclassical mainstream economics, whose assumptions about economic decision-making it considers empirically flawed and politically misleading. Whereas neoclassical economics starts from the analytical fiction of 'homo economicus' 10 and takes rational choice as axiomatically given, 11 behavioural economics strives for a psychologically more accurate account of individual decision-making based on empirical research. 12 Rejecting a narrow understanding of rational 'economic man' as a perfectly informed, fully consistent and self-interested utility maximiser, behavioural economics promotes concepts of 'bounded rationality', 'bounded willpower', and 'bounded self-interest' instead, which would better capture how people really make decisions. 13 The change of labels – from 'perfect' to 'bounded' rationality – is also normatively relevant. Compared to neoclassical economics, behavioural economics has different policy implications.

Behavioural economics rests on empirical and, especially, experimental work, which provides the substrate for more 'realistic' models of economic decision-making than typically used in 'neoclassical practice', ¹⁴ where narrow understandings of rationality are still commonplace. ¹⁵ In terms of how the rationality principle is qualified, one can distinguish between two major strands: a cognitive strand and a social strand. ¹⁶ Whereas the cognitive strand seeks to substantiate cognitive biases and context effects in individual decision making, the social strand focuses on social or interdependent preferences in situations of strategic interaction. ¹⁷ The two strands differ in which (auxiliary) assumptions of a narrowly confined rational-choice model

¹⁰ Mary S Morgan, 'Economic man as model man: ideal types, idealization and caricatures' (2006) 28 Journal of the History of Economic Thought 1.

Milton Friedman, 'The methodology of positive economics' in Milton Friedman (ed), *Essays in Positive Economics* (Chicago University Press 1953).

¹² Camerer (n 6 above).

¹³ Sendhil Mullainathan and Richard Thaler, 'Behavioral economics' in Neil S Smelser and Paul B Baltes (eds), International Encyclopedia of the Social & Behavioral Sciences (Pergamon Press 2001).

¹⁴ Sanjit S Dhami, *The Foundations of Behavioral Economic Analysis* (Oxford University Press 2016) 1.

¹⁵ Amartya Sen, 'Rational behaviour' in Macmillan Publishers (ed), *The New Palgrave Dictionary of Economics* vol 3 (Palgrave Macmillan 2018).

¹⁶ Luca Zarri, 'Behavioural economics has two "souls": do they depart from economic rationality?' (2010) 39 Journal of Socio-Economics 562.

¹⁷ Sabine Frerichs, 'Bounded sociality: behavioural economists' truncated understanding of the social and its implications for politics' (2019) 26 Journal of Economic Methodology 243.

they take issue with.¹⁸ In the cognitive strand, this is a specification of the rationality principle in terms of correct beliefs about the world and consistent choice between available alternatives. In the social strand, this is the self-interest assumption, which is typically specified as an orientation towards one's own material benefits or payoffs, but is now extended to include social preferences and internalised social norms. Both strands are still oriented towards mainstream economics in that they aim to provide neoclassical models of utility maximisation with more realistic content. Even though the opposition of neoclassical and behavioural economics is usually in the limelight, many scholars actually argue for merging the two.¹⁹

Importantly, there are also alternative approaches to behavioural economics which do not share this orientation. This includes work focusing on an 'ecological', or contextualised, understanding of rationality, in which 'the norms for optimal behavior are empirically derived from the circumstances surrounding real world decisionmaking as opposed to being imposed exogenously without any connection to the empirics of decision-making'.20 In other words, this strand of research distinguishes itself from mainstream behavioural economics in that it no longer uses the rational-choice framework as a reference for optimal decision-making behaviour, but acknowledges the adaptive quality of heuristics instead.²¹ At the same time, these perspectives explicitly build on the classics of the field, or what is now occasionally referred to as 'old' behavioural economics, namely Herbert Simon's work.²² Moreover, behavioural economics is not the only way to combine insights from economics and psychology. An obvious alternative is economic psychology which, despite increasing convergence between the fields, remains somewhat broader than behavioural economics and does not have to share the latter's concern with correcting neoclassical economic models.²³

¹⁸ Clemens Kroneberg and Frank Kalter, 'Rational choice theory and empirical research: methodological and theoretical contributions in Europe' (2012) 38 Annual Review of Sociology 73.

¹⁹ Dhami (n 14 above).

²⁰ Morris Altman, 'A Bounded rationality assessment of the new behavioral economics' in Roger Frantz et al (eds), *Routledge Handbook of Behavioral Economics* (Routledge 2017) 186.

²¹ Peter M Todd and Gerd Gigerenzer (eds), *Ecological Rationality: Intelligence in the World* (Oxford University Press 2012).

²² Erik Angner and George Loewenstein, 'Behavioral economics' in Uskali Mäki et al (eds), *Philosophy of Economics* (Elsevier 2012) 655–659.

²³ Peter E Earl, 'Economics and psychology in the twenty-first century' (2005) 29 Cambridge Journal of Economics 909; Katharina Gangl and Erich Kirchler, 'Introduction' in Katharina Gangl and Erich Kirchler (eds), *A Research Agenda for Economic Psychology* (Edward Elgar 2019).

Behavioural economics overlaps with experimental economics, which prioritises experiments to study economic questions.²⁴ In behavioural economics, experiments are used to document behavioural patterns that deviate from (narrow) assumptions of rational choice. These 'behavioural experiments' can be distinguished from 'market experiments', which are more prominent in experimental economics.²⁵ Whereas behavioural economics is concerned with cognitive biases in individual decision-making and the 'rules of personal exchange' in pairs or small groups, experimental economics typically focuses on the 'rules of impersonal market exchange'.²⁶

Neuroeconomics can either be understood as an extension of behavioural economics into the realm of neuroscience or as a subfield of behavioural and experimental economics.²⁷ The novelty is the utilisation of neuroscientific methods to study 'how the brain works in [economic] decision making'.²⁸ In practice, this means that behavioural phenomena of bounded rationality, bounded willpower, and bounded self-interest are tracked down to their neural correlates in the brain. The surge of neuroeconomics is linked with broader interdisciplinary ambitions. While behavioural economics already integrates economics with (parts of) psychology, neuroeconomics adds neuroscience as a third layer.²⁹ For some, this project promises not only to bring about 'some unification across the social sciences'.³⁰ but to promote a 'fusion of the social and natural sciences'.³¹

In sum, behavioural, experimental, and neuroeconomics differ from neoclassical economics by adopting a more realistic approach to economic decision-making, which resorts to empirical research

²⁴ George Loewenstein, 'Experimental economics from the vantage-point of behavioural economics' (1999) 109 Economic Journal F25.

²⁵ Ana C Santos, 'Experimental economics' in John B Davis and D Wade Hands (eds), *The Elgar Companion to Recent Economic Methodology* (Edward Elgar 2011).

Vernon L Smith, 'Constructivist and ecological rationality in economics' (2003) 93 American Economic Review 465, 501.

²⁷ Colin Camerer, 'Neuroeconomics: using neuroscience to make economic predictions' (2007) 117 Economic Journal C26, C26; Paul W Glimcher and Ernst Fehr, 'Introduction: a brief history of neuroeconomics' in Paul W Glimcher and Ernst Fehr (eds), *Neuroeconomics: Decision Making and the Brain* vol 2 (Elsevier 2014) xx; Martin Reuter and Christian Montag, 'Neuroeconomics – an introduction' in Martin Reuter and Christian Montag (eds), *Neuroeconomics* (Springer 2016).

²⁸ Camerer (n 27 above) C38.

²⁹ Reuter and Montag (n 27 above) 1.

³⁰ Colin F Camerer, George Loewenstein and Drazen Prelez, 'Neuroeconomics: why economics needs brains' (2004) 106 Scandinavian Journal of Economics 555.

³¹ Paul W Glimcher, Foundations of Neuroeconomic Analysis (Oxford University Press 2011) xvi.

methods – typically experiments – to generate behavioural data and test economic assumptions. In addition, the experiments may include other psychological and physiological measurements which help to explain behavioural outcomes that are not in line with the predictions of neoclassical models.

Institutional economics and socioeconomics

While experimental and neuroeconomics were complements and extensions of behavioural economics, institutional economics and socioeconomics can better be understood as alternative approaches. Institutional economics comes in different variants, 'old' and 'new'. Old American institutionalism refers to a development in the economic discipline in the late nineteenth and early twentieth century before the neoclassical paradigm took hold.³² This older tradition of institutional economics parallels historical-holistic scholarship on the European continent.³³ Contemporary versions of old institutionalism are sometimes referred to as 'modern institutionalism'.³⁴ In contrast, new institutional economics remains close to the twentieth-century economic mainstream. It is based on an 'adaptation' rather than a 'rejection' of standard neoclassical models. 35 In this regard, it can also be interpreted as 'new institutionalism within neoclassicism'.36

The approach to institutions differs in old and new institutional economics. At the risk of oversimplification, old institutionalism takes institutions as a starting point, highlights their pervasive influence on economic activities, and exposes their distributive effects, whereas new institutional economics takes individual interests as given, explains the emergence of institutions based on rational choice, and compares the efficiency of different institutional arrangements.³⁷ Both old and

³² William J Barber, 'American economics to 1900' in Warren J Samuels, Jeff E Biddle and John B Davis (eds), *A Companion to the History of Economic Thought* (Blackwell 2008).

Geoffrey M Hodgson, 'Institutional economic thought in Europe' in Geoffrey M Hodgson, Warren J Samuels and Marc R Tool (eds), *The Elgar Companion to Institutional and Evolutionary Economics* (Edward Elgar 1994).

³⁴ Élodie Bertrand, 'Institutional economics' in Gilbert Faccarello and Heinz D Kurz (eds), *Handbook on the History of Economic Analysis, Volume III:* Developments in Major Fields of Economics (Edward Elgar 2016).

³⁵ Victor Nee, 'The new institutionalisms in economics and sociology' in Neil J Smelser and Richard Swedberg (eds), *The Handbook of Economic Sociology* 2 edn (Princeton University Press 2005) 55.

Herbert Hovenkamp, 'Institutionalism, and the origins of law and economics' (2011) 86 Indiana Law Journal 499, 541.

³⁷ Geoffrey M Hodgson, 'Institutionalism, "old" and "new" in Geoffrey M Hodgson, Warren J Samuels and Marc R Tool (eds), *The Elgar Companion to Institutional and Evolutionary Economics* vol 1, A–K (Edward Elgar 1994); Geoffrey M Hodgson, 'The approach of institutional economics' (1998) 36 Journal of Economic Literature 166.

new institutional economics consider a broad range of institutions, including (formal) legal rules as well as (informal) social norms. However, the non-rational foundations of institutions, eg in 'instincts' and 'habits', 38 play a greater role in the tradition of old institutionalism than in new institutional economics. The different starting points notwithstanding, legal institutions gained attention in both schools of thought. In old institutionalism, law was credited with a central, if not constitutive role, for the economy, with distributive implications.³⁹ These ideas informed the 'first law and economics movement'.40 In new institutional economics, matters of legal relevance include the allocation of property rights and the governance of contract relations.⁴¹ In principle, what is known as law and economics today could also be subsumed under new institutional economics.⁴² However, usually these are considered 'separate movements'.43 Of particular interest in the present context are continuations of old institutionalism in institutional law and economics.44

Socioeconomics is a label for scholarship at the interface of economy and society.⁴⁵ Historically, the term 'social economics' was more common, and included contributions from economists as well as sociologists.⁴⁶ In the late twentieth century, socioeconomics

³⁸ Hodgson, 'The approach of institutional economics' (n 37 above).

³⁹ John R Commons, Legal Foundations of Capitalism (Macmillan Company 1924).

⁴⁰ Herbert Hovenkamp, 'The first great law and economics movement' (1990) 42 Stanford Law Review 993.

Eirik G Furubotn and Rudolf Richter, *Institutions and Economic Theory: The Contribution of the New Institutional Economics* 2nd edn (University of Michigan Press 2010); Rinat Menyashev et al, 'New institutional economics: a state-of-theart review for economic sociologists' (2011) 13 Economic Sociology – European Electronic Newsletter 12; Oliver E Williamson, 'The new institutional economics: taking stock, looking ahead' (2000) 38 Journal of Economic Literature 595.

⁴² Bertrand (n 34 above) 21-22.

⁴³ Peter G Klein, 'New institutional economics' in Boudewijn Bouckaert and Gerrit De Geest (eds), Encyclopedia of Law and Economics, volume I: The History and Methodology of Law and Economics (Edward Elgar 2000) 459.

⁴⁴ Steven G Medema, Nicholas Mercuro and Warren Samuels, 'Institutional law and economics' in Boudewijn Bouckaert and Gerrit De Geest (eds), Encyclopedia of Law and Economics, volume 1: The History and Methodology of Law and Economics (Edward Elgar 2000).

⁴⁵ Amitai Etzioni, 'Socio-economics' in Jens Beckert and Milan Zafirovski (eds), *International Encyclopedia of Economic Sociology* (Routledge 2006); Richard Hattwick, 'The future paradigm for socio-economics: three visions and a call for papers' (1999) 28 Journal of Socio-Economics 511; Simon Niklas Hellmich, 'What is socioeconomics?' (2017) 46 Forum for Social Economics 3.

⁴⁶ Richard Swedberg, 'Economic sociology: past and present' (1987) 35 Current Sociology 1, 30; Milan Zafirovski, 'Sociological dimensions in classical/neoclassical economics: conceptions of social economics and economic sociology' (2014) 53 Social Science Information 76.

became institutionalised as an interdisciplinary research field next to behavioural economics, with both being opposed to the neoclassical mainstream.⁴⁷ As to the relation between behavioural economics and socioeconomics, the difference is more pronounced in the cognitive strand than in the social strand of behavioural economics. In the cognitive strand, behavioural economics lays emphasis on cognitive biases, that is, our limited capacities to rationally process and evaluate information. In contrast, socioeconomics understands rationality, first of all, as context-bound and highlights the social and cultural conditions of rational as well as non-rational action. In the social strand of behavioural economics as well as in socioeconomics, different forms of 'social rationality' play a greater role.⁴⁸ While behavioural economics largely draws on (cognitive and social) psychology, socioeconomics is more oriented toward sociology and other social science disciplines.

Given its link with sociology, socioeconomics is much interested in social institutions, which have from the outset been a central sociological concern.⁴⁹ New sociological institutionalism, which developed more recently, distinguishes 'three pillars of institutions': regulative, normative, and cognitive-cultural.⁵⁰ In new institutional economics, the third dimension has been relatively neglected so far, while it is manifest in (parts of) old institutional economics, in the form of 'habits of thought', or 'cognitive habits'.⁵¹ Cultural-cognitive perspectives may help to bring institutional and behavioural economics closer to each other by exploring to what extent cognitive biases are shaped or reinforced by cultural influences. There is also work at the intersection of law and socioeconomics.⁵² Like in explicitly institutionalist approaches, law is conceived as a social institution in structuring the economy and in shaping economic behaviour. This aspect is also emphasised in the economic sociology of law.⁵³

⁴⁷ Frerichs (n 9 above) 419–431.

⁴⁸ Frerichs (n 17 above).

⁴⁹ Nee (n 35 above) 55.

⁵⁰ William Richard Scott, *Institutions and Organizations: Ideas, Interests, and Identities* (Sage 2013) 57–70.

⁵¹ Hodgson, 'The Approach of Institutional Economics' (n 37 above) 180.

⁵² Lynne L Dallas, 'Teaching law and socioeconomics' (2004) 41 San Diego Law Review 11; Robin Stryker, 'Mind the gap: law, institutional analysis and socioeconomics' (2003) 1 Socio-Economic Review 335; Mark D White, 'Securing an ethical foundation for law and social economics' in John B Davis and Wilfred Dolfsma (eds), *The Elgar Companion to Social Economics* 2nd edn (Edward Elgar 2015).

Diamond Ashiagbor, Prabha Kotiswaran and Amanda Perry-Kessaris (eds), 'Special Issue: Towards an Economic Sociology of Law' (2013) 40 Journal of Law and Society 1; Diamond Ashiagbor, Prabha Kotiswaran and Amanda Perry-Kessaris (eds), 'Special Issue: Continuing towards an Economic Sociology of Law' (2014) 65 Northern Ireland Legal Quarterly 259; Richard Swedberg, 'The case for an economic sociology of law' (2003) 32 Theory and Society 1

LAW AS BEHAVIOUR: LEGACIES OF LEGAL REALISM AND ITS BEHAVIOURAL UNDERPINNINGS

Legal realism, as it developed in the twentieth century, promoted an understanding of law as a behavioural and social science. In contrast to doctrinal legal scholarship, scholarship in the legal-realist tradition takes a behavioural approach to law. Behavioural law and economics is also referred to as behavioural analysis of law, or a behavioural approach to law and economics. However, the similarities in terms are misleading. What is understood as a behavioural approach has changed over time and differs between disciplines and contexts. This problem also shows in the concept of 'behaviouralism', which is easily equated or confused with 'behaviourism'. Historically, behaviourism refers to a distinctive research paradigm based on stimulus-response models and concepts of classical conditioning that are used to explain human behaviour. This section explains how the behavioural approach to law was originally conceived and how different paradigms in the behavioural sciences yield different interpretations of legal realism.

American legal realism and the rise of law as social science

Behavioural research in law clearly pre-dates the emergence of behavioural law and economics. The development of a behavioural approach to law is connected with the rise of American legal realism and academic movements in its wake, which opened legal research to the social sciences.⁵⁵ This orientation towards empirical social research combined with a conception of law as an instrument of social engineering distinguished legal realism from earlier developments in historical and sociological jurisprudence.⁵⁶

One of the forerunners of American legal realism at the turn of the twentieth century was Oliver Wendell Holmes, a legal scholar who served as justice at the United States Supreme Court. Holmes anticipated the legal realist credo that law is what judges do,⁵⁷ signifying a move away from logical principles to behavioural predictions of adjudication. This concerned legal as well as economic reasoning. Holmes criticised

⁵⁴ Christine Jolls, Cass R Sunstein and Richard Thaler, 'A behavioral approach to law and economics' (1998) 50 Stanford Law Review 1471; Cass R Sunstein, 'Behavioral analysis of law' (1997) 64 University of Chicago law review 1175

⁵⁵ Michiru Nagatsu and Magdalena Małecka, 'How behavioural research has informed consumer law: the many faces of behavioural research' in Hans-W Micklitz, Anne-Lise Sibony and Fabrizio Esposito (eds), Research Methods in Consumer Law: A Handbook (Edward Elgar 2018) 385–388.

⁵⁶ Brian Tamanaha, 'Understanding legal realism' (2009) 87 Texas Law Review 731.

⁵⁷ Oliver Wendell Holmes, 'The path of the law' (1897) 10 Harvard Law Review 457, 461.

conceptions of law as 'a given system ... [that] can be worked out like mathematics from some general axioms of conduct'.⁵⁸ He found the same style of 'downward reasoning'⁵⁹ in deciding cases based on economic theories or doctrines, which were shared by certain groups only and did not reflect the problems and challenges of the industrial age.⁶⁰ Instead, he envisioned a more empirical or inductive style of legal analysis and invoked 'the man of statistics and the master of economics' as 'the man of the future' who would help assess law's effects in social reality.⁶¹

Initially, the turn to economics was thus motivated by pragmatism, and not a belief in timeless economic models. Legal realists working in this vein can be depicted as 'Proto-Posnerian' in orientation.⁶² This includes precursors of neoclassical law and economics as well as successors of 'old' institutional law and economics.⁶³

From the perspective of the social sciences, the most important legacy of American legal realism is that it promoted an understanding of 'law as behaviour'.⁶⁴ This included the behaviour of legal officials as well as of laypersons.⁶⁵ At the centre were explanations of what judges do in the light of law's indeterminacy. One can distinguish between psychological accounts resorting to the personality of individual judges and sociological accounts addressing the behaviour of judges as a social group.⁶⁶

A representative of psychological explanations was Jerome Frank, who emphasised the 'personal element' in judicial decision-making, which would make legal outcomes difficult to predict. As opposed to rule-based approaches he described judicial decision-making as 'the

⁵⁸ Ibid 465.

⁵⁹ G Edward White, 'From sociological jurisprudence to realism: Jurisprudence and social change in early twentieth-century America' (1972) 58 Virginia Law Review 999, 1003.

⁶⁰ Holmes (n 57 above); Edmund Ursin, 'Clarifying the normative dimension of legal realism: the example of Holmes's *The Path of the Law*' (2012) 49 San Diego Law Review 487, 498.

⁶¹ Holmes (n 57 above) 469.

⁶² Brian Leiter, 'American legal realism' in Martin P Golding and William A Edmundson (eds), *The Blackwell Guide to the Philosophy of Law and Legal Theory* 2nd edn (Blackwell 2005) 58.

⁶³ Herbert Hovenkamp, 'Knowledge about welfare: legal realism and the separation of law and economics' (2000) 84 Minnesota Law Review 805, 854–860.

⁶⁴ Nourse and Shaffer (n 2 above)70

⁶⁵ Karl N Llewellyn, 'A realistic jurisprudence: the next step' (1930) 30 Columbia Law Review 431.

⁶⁶ Leiter (n 62 above).

Stimuli affecting the judge x the Personality of the judge = Decisions'.67 As the terminology shows, this was also a response to cruder forms of behaviourism,68 which leave out personality. In contrast, 'more modest and restrained' versions of behaviourism, which take account of the human mind, were exempted from this criticism.69 The focus on understanding judicial decision-making in behavioural rather than in doctrinal terms is shared by sociological (or anthropological) approaches, representatives of which were Karl Lewellyn and Underhill Moore. This 'sociological wing' of legal realism⁷⁰ can more readily be recognised as giving 'realistic jurisprudence'⁷¹ a social-scientific outlook, with the reference not being individual or idiosyncratic personalities but collective circumstances and culture.

One of the messages of legal realism was that the behaviour of iudges could be studied in empirical terms just like that of any other human beings. This was a new perspective for legal scholars but could be considered a truism '[t]o a man of sociology or psychology'.⁷² With the second law and economics movement, which was spearheaded by Posner's economic analysis of law, rational-choice models of judicial behaviour gained prominence as well.⁷³ Neoclassical law and economics forms part of the legal-realist heritage inasmuch as it continues the behavioural analysis of law by other means and shares an instrumentalist approach to law. However, it also claimed that '[t]he law and economics movement owes little to legal realism' given the latter's 'lack of method', or that the 'tools of economics [and] statistics' had not been sufficiently developed vet at that time.74 Similarly, new institutional economics draws a link with legal realism but distances itself from the latter's perceived analytical and empirical deficiencies. 75

Jerome Frank, 'Are judges human, part two: as through a class darkly' (1931) 80 University of Pennsylvania Law Review and American Law Register 233, 242, original emphasis.

⁶⁸ Ibid 243-247.

⁶⁹ Jerome Frank, Courts on Trial: Myth and Reality in American Justice (Princeton University Press 1973) 160, n 3.

⁷⁰ Leiter (n 62 above).

⁷¹ Llewellyn (n 65 above).

⁷² Karl N Llewellyn, *The Common Law Tradition: Deciding Appeals* (Little, Brown & Company 1960) 53.

Richard A Posner, 'What do judges and justices maximize? (The same thing everybody else does)' (1993) 3 Supreme Court Economic Review 1.

⁷⁴ Richard A Posner, Overcoming Law (Harvard University Press 1995) 3, 393.

⁷⁵ Oliver E Williamson, 'Revisiting legal realism: the law, economics, and organization perspective' (1996) 5 Industrial and Corporate Change 383, 388.

Legal realism effectively opened law to empirical social science, even though there was no uniform position in this regard. This includes economics and sociology as well as psychology, inasmuch as this takes social factors into account, and later political science, which developed a subfield of 'law and politics'. The From this point of view, law and economics is as much premised on legal realism as other 'law and' disciplines. However, given its predilection for formal models and deductive reasoning, some scholars consider neoclassical law and economics not realistic enough to qualify as legal realism. For them, neoclassical law and economics simply exchanged the old formalism based on legal doctrine for a different formalism based on axiomatic economic concepts, which includes the superiority of market-like arrangements.

This new formalism is overcome by behavioural economics. While this may be enough to consider behavioural economics a variety of new legal realism, it is not the only one. The concept can also be applied to other strands of scholarship at the intersection of economics and jurisprudence.

Behavioural science, behaviourism and the cognitive turn

However, it is not only that legal realism comes in different variants and differentiated over time, but there are also different versions of what is considered a behavioural approach. The behavioural turn in (law and) economics is hardly the first of its kind.

Behavioural science refers, in broadest terms, to the study of human and non-human behaviour. In the middle of the twentieth century, the behavioural sciences were understood to include 'sociology, anthropology, psychology, and the behavioural aspects of biology, economics, geography, law, psychiatry and political science'.⁸⁰ From the perspective of the social sciences, the most important addition is biology, or ethology – the science of animal behaviour. The line between behavioural and social sciences is contingent. In terms of 'leading discipline[s]' in the field, there was a shift from sociology to psychology.⁸¹ Indeed, behavioural science often seems to be equated

⁷⁶ John Henry Schlegel, American Legal Realism and Empirical Social Science (University of North Carolina Press 1995).

⁷⁷ Miles and Sunstein (n 2 above) 832.

⁷⁸ Marc Galanter and Mark Alan Edwards, 'Introduction: The Path of the Law Ands' (1997) 1997 Wisconsin Law Review 375.

⁷⁹ David Campbell and Sol Picciotto, 'Exploring the interaction between law and economics: the limits of formalism' (1998) 18 Legal Studies 249; Nourse and Shaffer (n 2 above).

⁸⁰ Nagatsu and Małecka (n 55 above) 368.

⁸¹ Ibid 388.

with psychology today, whereas sociology is regarded a social science *par excellence*. In general, a behavioural approach to law may draw on a variety of disciplines, including sociology, economics, and psychology.

Moreover, focusing on how psychology developed in the twentieth century, two alternative and largely successive paradigms have to be distinguished: 'behaviourism' and 'cognitivism'.82 The behaviourist revolution sought to substitute mental states, which were considered merely subjective, with observable behaviours that could be objectively measured. In contrast, the cognitivist revolution brought the mind back in based on new methods and orienting metaphors (the computer), which set the focus on information processing. In the second half of the twentieth century, behavioural science increasingly came to be understood through the cognitive lens.83 New subdisciplines and interdisciplinary research fields formed around the study of cognitive processes: cognitive psychology, cognitive science, and cognitive neuroscience. These perspectives can also be applied to the law.

As an empiricist research paradigm, behaviourism had an influence on both (old) economic institutionalism and American legal realism,⁸⁴ although in both cases other psychological approaches played a role as well. In old institutionalism, earlier representatives, such as Thorstein Veblen, were still influenced by instinct psychology,⁸⁵ whereas later representatives, including Walton Hamilton, came to be labelled as 'behaviorist institutionalists'.⁸⁶ In American legal realism, the shared interest was in showing how judges responded to the 'stimulus of the facts of the case, rather than to legal rules and reasons',⁸⁷ even though the relevant factors shaping their decision-making behaviour were specified differently by representatives of different wings.⁸⁸

Moreover, behaviourism also left its traces in 'revealed preference

⁸² Ibid 365–367; João Paulo Watrin and Rosângela Darwich, 'On behaviorism in the cognitive revolution: myth and reactions' (2012) 16 Review of General Psychology 269.

⁸³ Nagatsu and Małecka (n 55 above) 369.

⁸⁴ Pier Francesco Asso and Luca Fiorito, 'Human nature and economic institutions: instinct psychology, behaviorism, and the development of American institutionalism' (2004) 26 Journal of the History of Economic Thought 445–464; Leiter (n 62 above) 50.

Asso and Fiorito (n 84 above) 447–449; Hodgson, 'The Approach of Institutional Economics' (n 37 above) 167.

⁸⁶ Asso and Fiorito (n 84 above) 464.

⁸⁷ Leiter (n 62 above) 52.

⁸⁸ Jerome Frank, 'Are judges human? Part one: the effect on legal thinking of the assumption that judges behave like human beings' (1931) 80 University of Pennsylvania Law Review and American Law Register 17.

theory', based on which neoclassical economics came to equate observable behaviour with what was postulated as rational choice.⁸⁹ In political science, an inductive approach called behaviouralism, which starts from statistical behavioural observations, is noted to have its roots in behaviourism.⁹⁰ In law and economics, the term behaviouralism is used in contradistinction to behaviourism and not meant to be confused with the latter.⁹¹ Indeed, behavioural economics is not behaviourist in orientation but was inspired by the mid-century's cognitive revolution, which brought about new scientific methods to study mental processes.⁹² In other words, the behavioural turn that distinguishes behavioural economics from neoclassical economics replicates the cognitive turn in psychology.

REALIST THOUGHT IN LAW AND ECONOMICS: BEHAVIOURAL AND INSTITUTIONAL APPROACHES

Behavioural law and economics has become popular as a label, ⁹³ but this can easily be misunderstood. If one does not take the formula of 'law and economics' as given, it suggests that a behavioural approach to law is complemented or combined with economic analysis. However, the opposite is the case: behavioural economics comes first, and law is added later. Preserving this idea, some scholars speak of 'behavioural economics and the law'. ⁹⁴ The starting point in economics has implications for the notion of realism in the field, which reflects, in the first place, a greater realism in economics, and not in law and jurisprudence. This section illustrates how the behavioural turn in economics informs law and economics, focusing on the cognitive strand, and outlines alternative conceptions of law and economics with a realist pedigree, namely institutional approaches to law and economics as well as law and socioeconomics.

⁸⁹ Hovenkamp (n 40 above) 1033; Don Ross, 'The economic agent: not human, but important' in Uskali Mäki and others (eds), *Philosophy of Economics* (Elsevier 2012) 695.

⁹⁰ Inanna Hamati-Ataya, 'Behavioralism' in Renee Marlin-Bennet et al (eds), Oxford Research Encyclopedia of International Studies (Oxford University Press 2019); Colin Hay, Political Analysis (Palgrave Macmillan 2002) 10–12.

Jon D Hanson and Douglas A Kysar, 'Taking behavioralism seriously: a response to market manipulation' (2000) 6 Roger Williams University Law Review 259, 263–264, n 9; Gregory Mitchell, 'Taking behavioralism too seriously: the unwarranted pessimism of the new behavioral analysis of law' (2002) 43 William and Mary Law Review 1907, 1915, n 12.

⁹² Esther-Mirjam Sent, 'Behavioral economics: how psychology made its (limited) way back into economics' (2004) 36 History of Political Economy 735.

⁹³ Sunstein (ed) (n 1 above).

⁹⁴ Eyal Zamir and Doron Teichman (eds), Oxford Handbook of Behavioral Economics and the Law (Oxford University Press 2014).

Behavioural and experimental law and economics

The emergent field of behavioural law and economics challenges principles and assumptions of neoclassical law and economics, which is now sometimes referred to as traditional law and economics. Relatedly, experimental economics finds extension in experimental law and economics. A representative of neoclassical law and economics is Richard Posner, a high-ranking judge and legal scholar, who promoted the 'economic analysis of law'. A figurehead of behavioural law and economics, or the 'behavioural analysis of law', a leading behavioural legal scholar. Together with Richard Thaler, a leading behavioural economist, Sunstein published *Nudge*, which promotes a vision of 'libertarian paternalism'. The idea is to 'nudge' boundedly rational economic actors into taking decisions in their own best interest by (re)designing the ambient 'choice architecture'. 100 The appropriate cues would make people act 'as if' they were fully rational. 101

Nudging is probably the most prominent application of behavioural economics relevant to law and policy-making. 102 It is rooted in the cognitive strand of behavioural economics, which is concerned with overcoming cognitive biases that may hamper individual decision-making and lead to suboptimal outcomes. With regard to law and economics, one can distinguish between two types of analysis: what the legal system actually does (positive analysis) and what it should do

⁹⁵ Steven M Sheffrin, 'Behavioral law and economics is not just a refinement of law and economics' (2017) Œconomia History, Methodology, Philosophy 331.

⁹⁶ Richard H McAdams, 'Experimental law and economics' in Boudewijn Bouckaert and Gerrit De Geest (eds), *Encyclopedia of Law and Economics, volume I: The History and Methodology of Law and Economics* (Edward Elgar 2000).

⁹⁷ Ejan Mackaay, 'History of law and economics' in Boudewijn Bouckaert and Gerrit De Geest (eds), *Encyclopedia of Law and Economics*, *volume I: The History and Methodology of Law and Economics* (Edward Elgar 2000) 76–77; Richard A Posner, *Economic Analysis of Law* 7th edn (Wolters Kluwer Law & Business 2007).

⁹⁸ Sunstein (n 54 above).

⁹⁹ Cass R Sunstein and Richard H Thaler, 'Libertarian paternalism is not an oxymoron' (2003) University of Chicago Law Review 1159; Richard H Thaler and Cass R Sunstein, *Nudge: Improving Decisions about Health, Wealth, and Happiness* (Yale University Press 2008).

¹⁰⁰ Thaler and Sunstein (n 99 above).

¹⁰¹ Frerichs (n 9 above) 437; Ana C Santos, 'Behavioural and experimental economics: are they really transforming economics?' (2011) 35 Cambridge journal of economics 705, 707.

¹⁰² Alberto Alemanno and Anne-Lise Sibony (eds), *Nudge and the Law: A European Perspective* (Hart Publishing 2015); Hans-W Micklitz, 'The politics of behavioural economics of law' in Hans-W Micklitz, Anne-Lise Sibony and Fabrizio Esposito (eds), *Research Methods in Consumer Law: A Handbook* (Edward Elgar 2018).

(normative analysis).¹⁰³ Both variants can also be found in behavioural law and economics. Positive analysis deals with 'how agents behave in response to legal rules and how legal rules are shaped'.¹⁰⁴ Normative analysis is about using law as a means to given (economic) ends but also about reconsidering 'the ends of the legal system' in light of bounded rationality, bounded willpower and bounded self-interest.¹⁰⁵

'Governance by nudges' provides an alternative to how legal regulation is usually understood. Legal frameworks inevitably work as a choice architecture that shapes individual preferences and influences economic decision-making. A proposition of normative behavioural law and economics is to exploit the nudging potential of law to counteract bounded rationality by way of 'debiasing through law'. However, because of the 'endogeneity' of law 109 in what may be regarded efficient regulation, there is no single social optimum to strive for. This ambiguity about the standard of comparison between two states, or types, of legal systems distinguishes the behavioural approach to law and economics 110 from its neoclassical counterpart. In alternative approaches to behavioural law and economics, which do not build on (adaptations of) the rational choice paradigm, this contingency would even play a greater role. 111

Among the cognitive biases discussed in behavioural law and economics is the so-called 'endowment effect', which is studied in economic experiments.¹¹² The endowment effect describes a discrepancy in how much a person values a thing (or a right) depending on whether the person is 'endowed' with it or not. According to the assumptions of rational choice theory, the individual 'willingness to

¹⁰³ Denis J Brion, 'Norms and values in law and economics' in Boudewijn Bouckaert and Gerrit De Geest (eds), *Encyclopedia of Law and Economics volume I: The History and Methodology of Law and Economics* (Edward Elgar 2000).

¹⁰⁴ Jolls et al (n 54 above).

¹⁰⁵ Ibid 1474.

¹⁰⁶ Frerichs (n 9 above).

¹⁰⁷ Sunstein (n 54 above) 1177.

¹⁰⁸ Christine Jolls, 'Bounded rationality, behavioral economics, and the law' in Francesco Parisi (ed), *The Oxford Handbook of Law and Economics, volume 1: Methodology and Concepts* (Oxford University Press 2017); Christine Jolls and Cass R Sunstein, 'Debiasing through law' (2006) 35 Journal of Legal Studies 199.

¹⁰⁹ Lauren B Edelman and Robin Stryker, 'A sociological approach to law and the economy' in Neil J Smelser and Richard Swedberg (eds), *The Handbook of Economic Sociology* 2nd edn (Princeton University Press 2005).

¹¹⁰ Jolls et al (n 54 above).

¹¹¹ Gregory Mitchell, 'Alternative behavioral law and economics' in Eyal Zamir and Doron Teichman (eds), *Oxford Handbook of Behavioral Economics and the Law* (Oxford University Press 2014).

¹¹² Keith M Ericson and Andreas Fuster, 'The endowment effect' (2014) 6 Annual Review of Economics 555.

pay' (purchasing price) and 'willingness to accept' (sales price) should not differ for the same item. The endowment effect is relevant to law and economics because it violates the Coase theorem, which has become a cornerstone of neoclassical thinking. Accordingly, in an ideal world without transaction costs, it would not matter how property rights are initially distributed because interested parties could always bargain for the most efficient outcome by exchanging goods and buying or selling entitlements. In behavioural law and economics, this formal assumption is countered with empirical findings suggesting that the endowment effect is widespread and may even amount to a universal law of behaviour.¹¹³

Besides the cognitive strand of behavioural law and economics, one can also identify a social strand, which seems somewhat less prominent though. Whereas the cognitive strand of behavioural economics focuses on individual cognitive biases, or 'bounded rationality', the social strand is concerned with 'bounded self-interest' and 'social rationality'. This distinction is also applicable to behavioural law and economics. As in behavioural economics in general, the cognitive and the social strand of behavioural law and economics both differ from the neoclassical tradition in law and economics, which is premised on rational choice and the pursuit of material self-interest.

Research in the social strand of behavioural economics takes social preferences as a starting point, with or without clarifying where these preferences come from. Social norms offer one powerful explanation, which also motivates research on law and prosocial behaviour. ¹¹⁴ The influence of social norms on individual behaviour gained attention from scholars working between law and economics and social psychology (or sociology, for that matter) in recent decades. ¹¹⁵ Social psychology here marks another pole of behavioural research next to cognitive psychology, both of which became articulated with behavioural economics. Indeed,

¹¹³ Gregory Klass and Kathryn Zeiler, 'Against endowment theory: experimental economics and legal scholarship' (2013) 61 UCLA Law Review 2, 26; Russell Korobkin, 'Wrestling with the endowment effect, or how to do law and economics without the Coase theorem' in Eyal Zamir and Doron Teichman (eds), Oxford Handbook of Behavioral Economics and the Law (Oxford University Press 2014).

¹¹⁴ Lynn Stout, 'Law and prosocial behavior' in Eyal Zamir and Doron Teichman (eds), *Oxford Handbook of Behavioral Economics and the Law* (Oxford University Press 2014).

¹¹⁵ Robert C Ellickson, 'Bringing culture and human frailty to rational actors: a critique of classical law and economics' (1989) 65 Chicago-Kent Law Review 23; Yuval Feldman and Robert J MacCoun, 'Some well-aged wines for the "new norms" bottles: Implications of social psychology for law and economics' in Francesco Parisi and Vernon Smith (eds), *The Law and Economics of Irrational Behavior* (University of Chicago Press 2005); Jeffrey J Rachlinski, 'The limits of social norms' (2000) 74 Chicago-Kent Law Review 1537.

what is referred to as 'social psychology and the law' or 'social psychology of law' today, often already includes developments at the interface of behavioural economics and law and economics.¹¹⁶

Institutional approaches to law and (socio)economics

Historically speaking, two waves of law and economics have to be distinguished,¹¹⁷ which also differ in their relations to legal realism. The first wave was institutional law and economics, which is linked to old (American) institutionalism.¹¹⁸ This school of thought was flourishing in the early twentieth century when legal realism emerged.¹¹⁹ The second wave of neoclassical law and economics was based on the economic analysis of law. This only developed in the second half of the twentieth century after the heyday of 'old' legal realism. While institutional and neoclassical approaches thus mark different stages in the history of law and economics,¹²⁰ both are all also present in contemporary discourse.

Both schools of thought obviously share the idea that law is an 'essential institution' relevant to understanding the functioning and dynamics of modern economies. ¹²¹ However, they represent quite different ways of doing law and economics. Neoclassical law and economics is guided by formal models based on the assumptions of rational choice and methodological individualism and proceeds in a deductive manner. Institutional law and economics was from the outset more inductive in orientation and characterised by a pragmatic, historical and holistic approach. ¹²² This reflects the criticism of classical political economy by old institutional economists:

Deductive reasoning in economics was held to be suspect: proper procedure called instead for direct empirical investigation of economic reality. Similarly, the notion that economic 'laws' could be identified – ones with universal validity throughout time and space – needed to be purged.¹²³

- 117 Mackaay (n 97 above) 69-80.
- 118 Hovenkamp (n 40 above); Medema et al (n 44 above).
- 119 Commons (n 39 above); Karl N Llewellyn, 'The effect of legal institutions upon economics' (1925) 15 American Economic Review 665.
- 120 Mackaay (n 97 above).
- 121 Hovenkamp (n 36 above) 543.
- 122 Hovenkamp (n 40 above).
- 123 Barber (n 32 above) 239.

Janice Nadler and Pam A Mueller, 'Social psychology and the law' in Francesco Parisi (ed), Oxford Handbook of Law and Economics, volume 1: Methodology and Concepts (Oxford University Press 2017); Kees van den Bos, 'Social psychology and law: basic principles in legal contexts' in Arie W Kruglanski, Paul A M Van Lange and E Tory Higgins (eds), Social Psychology: Handbook of Basic Principles 3rd edn (Guilford 2020).

Furthermore, contemporary versions of institutional law and economics, 124 which form part of a 'dissenting tradition' in law and economics, 125 have to be distinguished from new institutional economics. The latter is more historical in orientation than neoclassical economics, but it still builds to considerable extent on the rational choice paradigm and takes the form of a 'rational-choice institutionalism'. 126

Against this backdrop, behavioural law and economics can be understood as a third wave of law and economics, which differs from both institutional and neoclassical law and economics. Moreover, it also differs from the law and society movement, which developed parallel to the law and economics movement in the second half of the twentieth century and which some may consider the true heir of legal realism. 127 The two movements differed in their social-scientific orientation: in contrast to (the second wave of) law and economics, which builds on neoclassical economics and applies this framework to the law, the field of law and society is truly interdisciplinary in orientation, consisting in 'an amalgam of law, sociology, political science, anthropology and history, with lesser bits of economics and psychology'. 128 This is also to indicate that law and society scholarship does not exclude economic perspectives but considers them part of the overall enterprise. 129 There was even an interest in joining forces with 'descendants of ... institutional economics' at some point, 130 which resonates with earlier developments in (the first wave of) law and economics. 131

Besides disciplinary composition, the law and society movement and the law and economics movement also differed in their political trajectories, which mirrors the respective roles of the two movements in defining the problems of the welfare state and offering adequate solutions:

just as law and society helped to build and legitimate the activist state (and the role of law in its construction), the competing movement of

¹²⁴ Medema et al (n 44 above).

¹²⁵ Neil Duxbury, 'Is there a dissenting tradition in law and economics?' (1991) 54 Modern Law Review 300.

¹²⁶ Peter A Hall and Rosemary C R Taylor, 'Political science and the three new institutionalisms' (1996) 44 Political studies 936, 936, n 1.

¹²⁷ Bryant Garth and Joyce Sterling, 'From legal realism to law and society: reshaping law for the last stages of the social activist state' (1998) 32 Law and Society Review 409; Nourse and Shaffer (n 2 above) 115–127; G. Edward White, 'From realism to critical legal studies: a truncated intellectual history' (1986) 40 Southwestern Law Journal 819.

¹²⁸ Galanter and Edwards (n 78 above) 379.

¹²⁹ Lawrence M Friedman, 'Coming of age: law and society enters an exclusive club' (2005) 1 Annual Review of Law and Social Science 1, 8.

¹³⁰ Garth and Sterling (n 127 above) 465, n 101.

¹³¹ Hovenkamp (n 40 above).

law and economics provided much of the learning and legitimacy for the later turn away from social welfare and state activism. 132

To put it differently, the economic analysis of law is more concerned with allocative efficiency than redistributive justice, and fares better in times of neoliberalism.¹³³ This can be compared with the 'politics of behavioural law and economics',¹³⁴ which seems to mark a new stage in the development of the welfare state, where state activism has, at least partly, been replaced by activation policies targeted at market citizens.¹³⁵ Whereas economic incentives may be enough for rational market participants, boundedly rational ones require 'nudges' to act in their own best interest. In short, behavioural economics yields behavioural politics, which is implemented using a new type of 'sociocognitive prostheses'.¹³⁶ The choice architectures highlighted in this context can at least partly also be understood as cultural frameworks shaping decision-making.

Starting from a different end than law and society research, the interdisciplinary field of socioeconomics likewise offers alternative perspectives on the interrelations of law and the economy. Focusing on the intersection of economy and society, socioeconomics is similarly broad as law and society research in that it considers different dimensions (political, economic, legal, cultural) of this relationship. Moreover, what both fields of scholarship obviously share is that they consider legal or economic behaviour as 'embedded' in its social context.¹³⁷ Socioeconomics shares roots with behavioural economics in the critique of neoclassical economics and the aim to work towards greater realism in the analysis of economic phenomena. However, despite some (initial) overlaps in membership, behavioural economics and socioeconomics can better be understood as separate academic movements that crystallised around different institutional platforms.¹³⁸ Turning to the law, socioeconomics takes up questions

¹³² Garth and Sterling (n 127 above) 414.

¹³³ Eric M Fink, 'Post-realism, or the jurisprudential logic of late capitalism: a sociolegal analysis of the rise and diffusion of law and economics' (2004) 55 Hastings Law Journal 931.

¹³⁴ Micklitz (n 102).

¹³⁵ Sabine Frerichs, 'From social rights to economic incentives? The moral (re)construction of welfare capitalism' in Toomas Kotkas and Kenneth Veitch (eds), Social Rights in the Welfare State: Origins and Transformations (Routledge 2017).

¹³⁶ Koray Çalışkan and Michel Callon, 'Economization, part 1: shifting attention from the economy towards processes of economization' (2009) 38 Economy and Society 369.

¹³⁷ Greta R Krippner and Anthony S Alvarez, 'Embeddedness and the intellectual projects of economic sociology' (2007) 33 Annual Review of Sociology 219.

¹³⁸ Frerichs (n 9 above) 419-425.

at the intersection of law, society, and the economy where socio-legal research leaves off.¹³⁹ The same applies to the economic sociology of law, which combines perspectives from economic sociology and the sociology of law,¹⁴⁰ and is connected with both socio-legal and socio-economic research communities. In all these approaches, law is considered a key institution of modern economies, which obviously yields commonalities with institutionalist strands of (law and) economics.

What all this shows is that there are, indeed, different varieties of realism at the interface of economics and jurisprudence, and behavioural law and economics is by no means the only alternative to neoclassical law and economics. The request for greater realism can be responded to in different ways, which bring different layers of reality to the fore: individual behaviour or social institutions. From a legal point of view, these different approaches could tentatively be described as 'legal behaviouralism' on the one hand and 'legal institutionalism' on the other, ¹⁴¹ even though these concepts are hardly related to each other. The counterpart of both is non-realist scholarship.

LAW AND PSYCHOLOGY: DIVERGENT DIRECTIONS OF BEHAVIOURAL REALISM IN LAW

Behavioural economics is not the first behavioural approach to be applied to law, nor can law and behavioural science be narrowed down to behavioural law and economics. Even if one starts from a more restrictive understanding of behavioural research as focusing on psychology, there are also other ways psychological arguments may enter legal scholarship, and law can be enriched with behavioural insights without necessarily adopting an economic framework. For this broader undertaking, labels such as 'law and psychology' or 'law and behavioural science' can be used. 142 Another option is 'legal psychology'

¹³⁹ Dallas (n 52 above).

¹⁴⁰ Ashiagbor et al (eds) (2013) and (2014) (n 53 above).

¹⁴¹ Simon Deakin et al, 'Legal institutionalism: capitalism and the constitutive role of law' (2017) 45 Journal of Comparative Economics 188; Jon D Hanson and Douglas A Kysar, 'Taking behavioralism seriously: the problem of market manipulation' (1999) 74 New York University Law Review 630; David E Ingersoll, 'Karl Llewellyn, American legal realism, and contemporary legal behavioralism' (1966) 76 Ethics 253.

¹⁴² Anne-Lise Sibony and Alberto Alemanno, 'The emergence of behavioural policy-making: a European perspective' in Alberto Alemanno and Anne-Lise Sibony (eds), Nudge and the Law: A European Perspective (Hart Publishing 2015) 8–9.

defined as 'the scientific study of the effect of law on people; and the effect people have on the law'. 143

Broadly speaking, law and psychology may interact in three different ways: 144 The most common understanding refers to the use of 'psychology *in* the law', where psychological expertise directly supports legal decision-making. This largely boils down to forensic psychology as 'the application of psychological knowledge for the purposes of the courts'. 145 'Psychology *and* the law' is more encompassing as a label and includes psychological research on questions relevant to the operation of the judicial system without offering direct advice. Finally, 'psychology *of* the law' is understood as a 'more abstract approach' that aims 'to understand the way that law seeks to control behavior as well as how people react to and interact with the law'. 146

Behavioural research at the intersection of law and economics is typically concerned with the latter type of questions, which also accounts for what type of psychology is imported into economic and legal scholarship. As it is occasionally argued, law makes assumptions about human nature and seeks to normatively guide behaviour. Psychology informs the law about how the regulation of behaviour works in practice and whether the law actually works as assumed. 147 In this perspective, the task of law and psychology is to instil the law with greater 'behavioural realism'. 148 In this section, two strands of law and psychology will be distinguished based on their starting points in cognitive and social psychology. The aim is to illustrate divergent pathways of realism in law, and different behavioural, or psychological, conceptions of legal and economic decision-making.

Increasing law's cognitive fit with evolved human brains

In behavioural (law and) economics, the new behavioural realism largely draws on cognitive psychology, which is premised on the cognitive

¹⁴³ James R P Ogloff, 'Two steps forward and one step backward: the law and psychology movement(s) in the 20th century' (2000) 24 Law and Human Behavior 457, 467.

¹⁴⁴ Curt R Bartol and Anne M Bartol, *Psychology and Law: Research and Practice* (Sage 2014) 5–10.

¹⁴⁵ Ronald Blackburn, 'What *is* forensic psychology?' (1996) 1 Legal and Criminological Psychology 1, 4.

¹⁴⁶ Bartol and Bartol (n 144 above) 9.

¹⁴⁷ Tom R Tyler and John Jost, 'Psychology and the law: reconciling normative and descriptive accounts of social justice and system legitimacy' in E Tory Kruglanski and Arie W Higgins (eds), *Social Psychology: Handbook of Basic Principles* 2nd edn (Guilford Press 2007) 807–808; van den Bos (n 116 above) 513.

¹⁴⁸ Victor D Quintanilla, 'Judicial mindsets: the social psychology of implicit theories and the law' (2012) 90 Nebraska Law Review 611, 613; Tyler and Jost (n 147 above) 808.

turn. The necessary boundary work took place in a research cluster at the interface of economics and psychology commonly referred to as 'behavioural decision research'. Developing in the 1970s, scholars in this area aimed 'to identify the common set of cognitive skills, their benefits and limitations, and to explore how they help produce observable behavior, whether optimal or not'. Given the cognitive foundations of behavioural decision research, one could also speak of 'cognitive' instead of 'behavioural' economics. Taking behavioural decision research to law yields a specific, cognitivist understanding of 'legal decision theory'. 152

What emerges is a new variety of legal realism that can best be illustrated by focusing at the bottom end: 'law and cognitive neuroscience'. This is more often simply referred to as 'law and neuroscience' and sometimes abbreviated as 'neurolaw'. The field is potentially very broad: it spans from the law of neuroscience (as a subject of regulation) to the neuroscience of law (as a professional practice), and can be complemented by a 'cognitive neuroscience of morality'. The recent surge of law and neuroscience is driven by 'technological developments that allow noninvasive detection of brain activities', so-called 'brain scanning' techniques. A good share of neurolaw is linked with forensic psychology and aims to explore what the cognitive turn implies for criminal justice. A theoretical question is

¹⁴⁹ Nagatsu and Małecka (n 55 above) 397.

¹⁵⁰ Angner and Loewenstein (n 22 above) 661.

¹⁵¹ Ibid 642; Luca Arnaudo, 'Cognitive law: an introduction' (2011) 19 Digest – National Italian American Bar Association Law Journal 1, 4; Salvatore Rizzello and Anna Spada, 'Behavioural and cognitive economics' in Faccarello Gilbert and Heinz D Kurz (eds), Handbook on the History of Economic Analysis, volume III: Developments in Major Fields of Economics (Edward Elgar 2016).

¹⁵² Gregory Mitchell, 'Why law and economics' perfect rationality should not be traded for behavioral law and economics' equal incompetence' (2002) 91 Georgetown Law Journal 67, 79–80.

¹⁵³ Brent Garland and Paul W Glimcher, 'Cognitive neuroscience and the law' (2006) 16 Current Opinion in Neurobiology 130; Oliver R Goodenough and Micaela Tucker, 'Law and cognitive neuroscience' (2010) 6 Annual Review of Law and Social Science 61.

¹⁵⁴ Francis X Shen, 'The law and neuroscience bibliography: navigating the emerging field of neurolaw' (2010) 38 International Journal of Legal Information 352.

Joshua D Greene, 'The cognitive neuroscience of moral judgment and decision making' in Michael S Gazzaniga and George R Mangun (eds), The Cognitive Neurosciences 5th edn (MIT Press 2014); Joshua D Greene and Jonathan D Cohen, 'For the law, neuroscience changes nothing and everything' (2004) 359 Philosophical Transactions of the Royal Society, Series B, Biological Sciences 1775.

¹⁵⁶ Owen D Jones and Francis X Shen, 'Law and neuroscience in the United States' in Tade Matthias Spranger (ed), *International Neurolaw: A Comparative Analysis* (Springer 2012) 350.

whether conventional definitions of criminal responsibility (as well as of civil liability) still hold in the light of what neuroscientific evidence may tell about the mental state of defendants.¹⁵⁷ A practical question is under what conditions new types of evidence should be considered admissible in court proceedings.¹⁵⁸

Of particular interest in the present context is how law and neuroscience intersects with law and economics in 'law and neuroeconomics'.159 This emerging field of scholarship can be understood as an extension of behavioural and experimental law and economics into the realm of neuroscience. In line with the behavioural turn in law and economics, the aim is to redirect scholarship 'to a more realistic and less aprioristic approach to human behavior'160 and, in doing so, to further something called 'cognitive law' or 'cognitive jurisprudence'. 161 The promise of this undertaking is to improve 'law's cognitive fit' for effectively 'govern[ing] behavior and structur[ing] society'. 162 This includes reckoning with bounded rationality, bounded willpower, and bounded self-interest, or different forms of social dynamics in small-group contexts or market settings, which are neglected in standard economic models. Cognitive biases are now understood as 'neurological limits to decision-making', 163 which have to be considered to create a law 'optimal' to influence economic and social behaviour in desired directions. 164

Cognitive psychology and neuroscience offer 'proximate' explanations for behavioural phenomena by referring to cognitive mechanisms in the individual mind or brain. The guiding question is how these mechanisms work to produce certain behaviours. Evolutionary psychology goes one step further to find 'ultimate' explanations for certain mechanisms in the evolution of humankind.¹⁶⁵ More specifically, evolutionary

¹⁵⁷ Owen D Jones et al, 'Law and neuroscience' (2013) 33 Journal of Neuroscience 17624, 17628; Francis X Shen, 'Law and neuroscience 2.0' (2016) 48 Arizona State Law Journal 1043, 1045–1049.

¹⁵⁸ Garland and Glimcher (n 152 above); Shen 1063–1064.

¹⁵⁹ Terrence Chorvat, Kevin McCabe and Vernon Smith, 'Law and neuroeconomics' (2005) 13 Supreme Court Economic Review 35.

¹⁶⁰ Arnaudo (n 152 above) 10.

¹⁶¹ Ibid; Oliver R Goodenough and Gregory J Decker, 'Why do good people steal intellectual property?' in Michael Freeman and Oliver R Goodenough (eds), *Law, Mind and Brain* (Routledge 2009).

¹⁶² Goodenough and Tucker (n 13 above) 62.

¹⁶³ Terence R Chorvat and Kevin A McCabe, 'Incentives, choices and strategic behavior: a neuroeconomic perspective for the law' in Joshua C Teitelbaum and Kathryn Zeiler (eds), *Research Handbook on Behavioral Law and Economics* (Edward Elgar 2018) 432.

¹⁶⁴ Chorvat et al (n 159 above) 37.

¹⁶⁵ Jaime C Confer et al, 'Evolutionary psychology: controversies, questions, prospects, and limitations' (2010) 65 American Psychologist 110, 111.

psychology refers to an interdisciplinary and integrative approach to the cognitive sciences, ¹⁶⁶ which emphasises the 'environment of evolutionary adaptedness', that is, the prehistorical, or ancestral, environments in which the cognitive mechanisms of human beings originally evolved. ¹⁶⁷ In this approach, the emphasis is on genetic evolution rather than gene-culture coevolution, and cognitive biases are interpreted in this light. ¹⁶⁸ The overarching aim is the 'mapping of our universal human nature' ¹⁶⁹ and not to study the effect of culture in shaping human evolution and development.

This scholarship shows proximity to behavioural and neuroeconomics, ¹⁷⁰ but less so to institutional economics, despite some shared interests in the evolutionary foundations of human behaviour. In evolutionary psychology, human 'instincts' are raised to importance, ¹⁷¹ which resonates with the instinct psychology that inspired some old institutionalists a century ago. However, the latter were more interested in the interplay of instincts and institutions than in human instincts as such. ¹⁷²

By taking evolutionary perspectives on board, the research in law and neuroeconomics extends into a field of studies called 'law and evolution'¹⁷³ or 'evolutionary psychology and the law'.¹⁷⁴ Building on evolutionary psychology, the research objective is to find ultimate explanations for 'law-relevant behavior'¹⁷⁵ and to specify the 'legally relevant psychological [instincts and] intuitions'¹⁷⁶ that we share with our ancestors. Again, researchers in this field are not only interested

- 170 Ibid 15.
- 171 Ibid 21-22.
- 172 Hodgson, 'The Approach of Institutional Economics' (n 37 above).
- 173 John Monahan, 'Could "law and evolution" be the next "law and economics"?' (2000) 8 Virginia Journal of Social Policy and the Law 123.
- 174 Owen D Jones, 'Evolutionary psychology and the law' in David M Buss (ed), *The Handbook of Evolutionary Psychology, volume 2: Integrations* 2nd edn (John Wiley & Sons 2016).
- 175 Russell Korobkin, 'A multi-disciplinary approach to legal scholarship: economics, behavioral economics, and evolutionary psychology' (2001) 41 Jurimetrics 319, 335
- 176 Carlton J Patrick, 'The long-term promise of evolutionary psychology for the law' (2016) 48 Arizona State Law Journal 995, 1010.

¹⁶⁶ Leda Cosmides and John Tooby, 'Evolutionary psychology: new perspectives on cognition and motivation' (2013) 64 Annual review of psychology 201, 202.

¹⁶⁷ David M G Lewis and others, 'Evolutionary psychology: a how-to guide' (2017) 72 American Psychologist 353, 362–363.

¹⁶⁸ Johan J Bolhuis et al, 'Darwin in mind: new opportunities for evolutionary psychology' (2011) 9 PLoS Biology e1001109.

John Tooby and Leda Cosmides, 'The theoretical foundations of evolutionary psychology' in David M Buss (ed), *The Handbook of Evolutionary Psychology, volume 1: Foundation* 2nd edn (John Wiley & Sons 2016) 3.

in criminal law but also in aspects of economic law, including property law and contract law.¹⁷⁷ From the point of view of behavioural law and economics, evolutionary psychology provides the evolutionary underpinnings for what looks like bounded rationality, or cognitive biases, but may have been completely functional once upon a time.¹⁷⁸ Moreover, it is suggested that 'law's leverage', or relative effectiveness, in governing legally relevant behaviours ultimately reflects how well it matches the faculties of evolved human brains.¹⁷⁹

Studying situated cognition in specific socio-legal contexts

According to a classical definition, social psychology aims to 'understand and explain how the thought, feeling and behavior of individuals are influenced by the actual, imagined or implied presence of others'. 180 This is a very broad definition, which lavs more emphasis on the (socially embedded) individual than on the social in its own right. 181 In its application to law, social psychology leaves room for different approaches to modelling law as social behaviour, or 'social action' 182 and is especially not confined to norm-oriented or value-based action. However, there is a tradition in the social psychology of law, which precisely considers such intrinsic motivations to comply with the law as key in promoting a more realistic model of legal behaviour against the rationalistic assumptions of much of legal and economic thinking. 183 Whereas this approach seems to have a strong sociological pedigree, in recent times other types of scholarship have come to the fore, such as approaches combining experimental social psychology with empirical legal studies. 184

This accounts for a certain overlap between social psychology and law on the one hand and behavioural law and economics on the other. Indeed, recent overviews of the social psychology of law tend to include certain aspects of behavioural and experimental economics, which is

¹⁷⁷ Jones (n 174 above) 1197.

¹⁷⁸ Ibid 1184-1185.

¹⁷⁹ Owen D Jones, 'Time-shifted rationality and the law of law's leverage: behavioral economics meets behavioral biology' (2001) 95 Northwestern University Law Review 1141: Jones (n 174 above) 1186–1189.

¹⁸⁰ Gordon W Allport, 'The historical background of social psychology' in Gardner Lindzey and Elliot Aronson (eds), *Handbook of Social Psychology* volume I 3rd edn (Random House 1985) 3.

¹⁸¹ Edwin E Gantt and Richard N Williams, 'Seeking social grounds for social psychology' (2002) 3 Theory and Science.

¹⁸² Max Weber, Economy and Society: An Outline of Interpretive Sociology (University of California Press 1978).

¹⁸³ Tyler and Jost (n 147 above).

¹⁸⁴ van den Bos (n 116 above) 527.

described as 'substantially informed by work in social psychology'.¹85 In turn, increasing reference to behavioural realism in the social psychology of law seems, at least partly, inspired by encounters with behavioural economics and its application to law.¹86 One can even find the idea that behavioural economics is 'one corner of social psychology',¹87 albeit this rests on a rather broad definition of the latter, which then refers 'not only to the traditional field of research that goes by that name but also to a number of interrelated scholarly fields, including social cognition and cognitive neuroscience'.¹88

Analytically speaking, it makes sense to hold on to the distinction between cognitive and social psychology as alternative starting points, which resonates with the distinction of cognitive and social strands in behavioural economics. What was presented as an extension of (law and) cognitive psychology into (law and) cognitive neuroscience and evolutionary psychology reflects research interests in the cognitive strand of behavioural economics with its emphasis on bounded rationality and cognitive biases. In turn, insights from social psychology are particularly pertinent to the social strand of behavioural economics, which is concerned with bounded self-interest, or prosocial behaviour. This perspective has been applied to the law by analysing how legal rules interact with social norms and moral attitudes. With the concept of social nudging, this approach fits well into the context of mainstream behavioural economics.

However, there is also research in the social psychology of law, which falls somewhat in between the cognitive and the social strand of behavioural (law and) economics. With regard to the cognitive strand, some scholars take issue with a prevailing concern with individual cognitive biases and their conception as 'exogenous influences on individual behavior', as if they were not also subject to 'dynamic effects that multiple actors can exert upon each other within the decisionmaking context'. ¹⁹⁰ Instead of individual decision-making under given social influences, social interaction here moves into the focus, or decision-making in social situations. In other words,

¹⁸⁵ Nadler and Mueller (n 116 above) 125.

¹⁸⁶ Quintanilla (n 148 above) 613-614, n 10; Tyler and Jost (n 147 above) 808.

¹⁸⁷ Jon D Hanson, 'Ideology, psychology, and law' in Jon D Hanson (ed), *Ideology, Psychology, and Law* (Oxford University Press 2012) 11.

¹⁸⁸ Adam Benforado and Jon D Hanson, 'Backlash: the reaction to mind sciences in legal academia' in Jon D Hanson (ed), *Ideology, Psychology, and Law* (Oxford University Press 2012) 503, n 1.

¹⁸⁹ Kenworthey Bilz and Janice Nadler, 'Law, Moral Attitudes, and Behavioral Change' in Eyal Zamir and Doron Teichman (eds), *Oxford Handbook of Behavioral Economics and the Law* (Oxford University Press 2014); Stout, 'Law and Prosocial Behavior'.

¹⁹⁰ Hanson and Kysar (n 141 above) 635, 639, original emphasis.

attention is drawn to the 'endogenous influence of other actors on the individual', which may also shape what cognitive biases prevail, or are exploited, in a specific situation.¹⁹¹ Cognitive biases are then not only an independent variable but, at least partly, also a dependent one.

The concern with to what extent cognitive biases, or other types of individual preconceptions addressed in social psychology (eg 'implicit theories'), are susceptible to variable social influences leads some scholars to argue for a change of focus towards situated cognition and the social context of legal and economic decision-making. 192 This is supported by an understanding of social psychology which explicitly considers the 'individual in the context of a social situation' as its subject matter, 193 and thus goes beyond the more general but also more abstract approach of studying individual thought, feeling and behaviour as merely influenced by some sort of reference to others. Applying this to the law, the specific social, contextual and situational factors shaping individual decision-making would gain more analytical weight compared to (over)generalised accounts of cognitive biases, dispositions or mindsets as individual properties. 194 To some researchers, embracing the situational paradigm would be the logical next step in applying insights from social psychology in legal scholarship after the advances of behavioural law and economics. 195

This research strategy would work against the previous and more reductionist one, which basically moves the level of analysis down from behaviours to brains. Moreover, a greater alertness to situational contexts will likely support giving greater weight to the intermediary effects of social institutions. Neither situations nor institutions can be captured in terms of neurobiological restrictions only, which are taken as given or as acquired in the course of human evolution. Instead, the social is preserved as an analytical category in its own right.

¹⁹¹ Jon D Hanson and Douglas A Kysar, 'Taking behavioralism seriously: some evidence of market manipulation' (1999) Harvard Law Review 1420, 1426, original emphasis.

¹⁹² Quintanilla (n 148 above) 613.

¹⁹³ Ibid 614, original emphasis.

¹⁹⁴ Mitchell (n 152 above) 72-73, 105-109.

¹⁹⁵ Benforado and Hanson (n 188 above): Hanson (n 188 above).

CONCLUSION: BEHAVIOURAL REALISM VERSUS INSTITUTIONAL REALISM

If we are all legal realists now,¹⁹⁶ are we also all behavioural economists?¹⁹⁷ Clearly, behavioural economics is not the only heir of legal realism, and one can doubt that it is the most legitimate one. Behavioural law and economics may form part of the 'post-"law and economics" initiative' which scholars rooted in legal realism and law and society scholarship have hoped for,¹⁹⁸ but it has to be put into its place in the wider field of intersections between law and the social and behavioural sciences.

Scholars who consider behavioural economics a variety of a new legal realism argue that the different strands of scholarship covered by this label would share a focus on institutions and institutional analysis, 199 which brings the variability of institutional contexts to the fore and naturally suggests their formative influence on behaviour. This institutional focus would imply richer understandings of law, states, and markets than neoclassical law and economics has on offer, which starts from rather abstract ideals, as illustrated by the definition of private property and the Coase theorem. While it is true that behavioural economics is less axiomatic than neoclassical economics, it has also to be noted that there is a 'tendency to focus on one or two cognitive processes at the expense of institutional context', 200 which makes behavioural (law and) economics less institutionalist in orientation than many other approaches in the social sciences.

This article sought to shed light on this ambiguity by bringing out the contrast between the cognitive strand of behavioural economics, which represents the mainstream of this field, and institutionalist forms of scholarship, which have likewise been applied to questions at the interface of law and economics. By elaborating on opposite ends of the spectrum of the behavioural and social sciences, the intention was to demonstrate the range of possibilities of what realism can amount to, and how divergent realistic accounts of behaviour can be depending on which scientific paradigm or academic discipline one takes inspiration from.

For much of today's behavioural economics, the main inspiration is cognitive psychology. Extensions of law and behavioural economics into law and neuroscience illustrate how legal institutions are qualified

¹⁹⁶ Nourse and Shaffer (n 2 above) 73.

¹⁹⁷ Erik Angner, 'We're are all behavioral economists now' (2019) 26 Journal of Economic Methodology 195.

¹⁹⁸ Garth and Sterling (n 127 above) 466.

¹⁹⁹ Nourse and Shaffer (n 2 above) 112-113.

²⁰⁰ Farber (n 2 above) 299.

by their cognitive fit with human brains, which some consider efficient on their own but maladapted to the modern social world.²⁰¹ Arguably, this is a peculiar take on the human condition which many social scientists will not share. Moreover, it yields a vision of governing society which many new legal realists will not agree with. If the 'possibility (and difficulty) of positive political and legal action'²⁰² is reduced to manipulating cognitive biases, the legal realist project does not look 'revitalised'²⁰³ but indeed quite exhausted. It is necessary to appreciate that there is a trade-off between behavioural and institutional realism and that different varieties of realism have different implications.

²⁰¹ Jones (n 179 above).

²⁰² Nourse and Shaffer (n 2 above) 63.

²⁰³ Ibid 90.