2

Darwin's Reinach

*James Toomey**

2.1 INTRODUCTION

Adolf Reinach believed three controversial things – that basic legal concepts exist outside of the law; that their existence is conceptually independent of moral obligation; and that their existence entails nothing about positive law.[1] The juxtaposition of these beliefs is almost unheard of in jurisprudence. Those who argue for the extralegal reality of legal concepts tend to think they are inherently ethical, with entailments for both law and moral behavior.[2] And those who are skeptical that the law draws upon external concepts rather than constructs its own tend also to be skeptical of morality – or at least morality beyond ontologically parsimonious utilitarianism.[3]

In his idiosyncratic position, however, Reinach is joined by today's theorists drawing on evolutionary psychology and cognitive science in an account of legal concepts.[4] Like Reinach, these theorists believe that basic legal concepts have a genuine life outside of the law, as universal features of a human mind shaped by

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[1] See Section 2.2.

[2] Scott Hershovitz, 'The End of Jurisprudence' (2015) 124 Yale LJ 1160; Steven Schaus, 'A Simple Model of Torts and Moral Wrongs' (2022) 97 Notre Dame L Rev 1029; Ian McLeod, *Legal Theory* (6th edn, Red Globe Press 2012) 18; Michael S Moore, 'Moral Reality Revisited' (1992) 90 Michigan L Rev 2424, 2425.

[3] Joseph William Singer, 'The Player and the Cards: Nihilism and Legal Theory' (1984) 94 Yale LJ 1; Richard Posner, *Economic Analysis of Law* (7th edn, Aspen 2007); Felix S Cohen, 'Transcendental Nonsense and the Functional Approach' (1935) 35 Columbia L Rev 809.

[4] Owen D Jones and Timothy H Goldsmith, 'Law and Behavioral Biology' (2005) 105 Columbia L Rev 405; Bart J Wilson, *The Property Species: Mind, Yours, and the Human Mind* (Oxford University Press 2020).

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natural selection.[5] They too don't think the existence of these concepts entails moral conclusions.[6] And, just like Reinach, evolutionary theorists tend to argue that the positive law can vary as it likes from basic concepts of human cognition and whatever morality may be or demand.[7]

And yet Reinach himself could not have been clearer that his claims *were not* to be associated with the inchoate psychology of his day.[8] He insists that the kind of reality he ascribes to legal concepts *is not* about human psychology – 'claims and obligations arise in the angels, devils, and gods – as long as they can really promise and can really hear promises.'[9] Fair enough – Reinach's theory is *different* from cognitive theories – it holds legal concepts to be metaphysical truths for all conceivable intelligence, not evolved partially contingent human universals. But since we *are* theorizing about law by and for human beings, you might wonder what is really at stake in this distinction.[10]

This chapter explains why – in intellectual context – Reinach took such pains to distinguish his account of the *a priori* realism of legal concepts from what might facially be thought of as close psychological equivalents. And I argue that, notwithstanding Reinach's commitment to the distinction, it is perhaps not as essential to his legal theory as he believed. In other words, it may be possible to accept the insights of Reinach's conclusions without fully subscribing to his metaphysics – if you happen to find evolutionary theory, cognitive science, or some similar account more plausible (though these fields are, of course, controversial in their own right).[11]

For Reinach personally, the question of whether legal concepts 'really' exist or are 'just' psychological characteristics was one front in a broader dispute preoccupying German-language philosophy of his time – the firestorm over so-called 'psychologism'; or whether (primarily) logical and mathematical principles are True-with-a-capital-T or generalizations about human thought. For Reinach, the ontological status of legal concepts was a case study in a broader account of ontology and epistemology.

But in fighting this broader battle, Reinach appears to have overestimated how much the outcome of the *Psychologismus-Streit* matters for legal theory. This is so for two reasons. First, the difference between metaphysical and

[5] Wilson (n 4) 19.
[6] Steven Pinker, *The Blank Slate: The Modern Denial of Human Nature* (Penguin 2002) 151.
[7] Jones and Goldsmith (n 4) 484.
[8] Adolf Reinach, 'The Apriori Foundations of the Civil Law' (John F Crosby tr, 1983) 3 Aletheia 1, 72, reprinted in Adolf Reinach, *The Apriori Foundations of the Civil Law Along with the Lecture 'Concerning Phenomenology'* (John F Crosby ed, Ontos Verlag 2012), originally published as Adolf Reinach, 'Die apriorischen Grundlagen des bürgerlichen Rechtes' 1(2) *Jahrbuch für Philosophie und phänomenologische Forschung* (Max Niemeyer 1913) 685–847.
[9] ibid 47.
[10] James Toomey, 'Property's Boundaries' (2023) 109 Virginia L Rev 131, 160.
[11] Linda Gannon, 'A Critique of Evolutionary Psychology' (2010) 4 Psychology, Evolution and Gender 173; Steven Rose and Hilary Rose, *Alas Poor Darwin: Arguments Against Evolutionary Psychology* (Crown 2001).

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evolutionary-cognitive theories of legal concepts is narrower than Reinach and his progenitors seem to have appreciated. Taking *natural selection* as the mechanism by which psychological proclivities arise means that there *is* a necessary relationship between psychology and ontology. It's not necessarily correspondence, true, but neither is it *arbitrary* or wholly contingent.

Moreover, the arguments Reinach's progenitors made for the metaphysical reality of logical and mathematical concepts are less persuasive as applied to Reinach's legal concepts.[12] Where logic and math appear to apply to reality generally, law is for Reinach (at least at present, so far as we know), a peculiarly human phenomenon. Distinguishing between psychology and ontology is particularly difficult, maybe impossible, in that context. And in the end, Reinach and his allies stipulate rather than purport to prove the metaphysical reality of the concepts they discuss. In logic and math, this stipulation might be necessary – Reinach's progenitors sought to make claims not merely *about* our logical concepts, but about how we *ought* to think with them. But writing in law, Reinach is different. Reinach *doesn't* derive conclusions about how the positive law ought to be from the ontological existence of his concepts.

This chapter proceeds in five parts. First, I summarize Reinach's legal philosophy, with its three idiosyncratic commitments. Next, I relate these views to theories of legal concepts grounded in evolutionary psychology – noting that, although Reinach predeceased scientific and theoretical developments that have made these theories more plausible, he took a crude sketch of what such theories might look like as a foil. In Section 2.4, I relate Reinach's legal theory to his place in the psychologism dispute, while in Section 2.5 I argue that he overestimated the difference between his account and evolutionary theories. Finally, I argue that arguments in favor of metaphysical reality in other contexts of the psychologism dispute – logic and math in particular – hold less force as applied to Reinach's legal concepts.

2.2 REINACH'S THREE COMMITMENTS

In *The A Priori Foundations of the Civil Law*, Reinach sketches three contestable positions about the nature of legal concepts, morality, law, and the relationship between these domains. First, he argues that legal concepts – such as promise, claim, and ownership – have a real existence outside of the law. Second, he argues that these concepts are distinct from morality – according to Reinach, an immoral promise, like any other, generates an obligation but, ethically, one ought not comply with it. And neither of these domains, for Reinach, has any necessary implications for the positive law, which he apparently took to be a matter of descriptive social fact.

The central thesis of the *Foundations* is that basic legal concepts really exist, independent of their recognition or creation in positive law. 'We shall show that the

[12] Reinach, 'Foundations' (n 8) 45.

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structures which one has generally called specifically legal have a being of their own just as much as numbers, trees, or houses, that this being is independent of its being grasped by men, that it is in particular independent of all positive law. . .. We really do find what one has emphatically denied: the positive law *finds* the legal concepts which enter into it; *in absolutely no way does it produce them*."[13]

Thus, Reinach believes that we can engage in *a priori* conceptual reasoning about such ideas as 'promise' and 'ownership' without invoking or referencing the positive law at all.[14] And indeed, his efforts at reasoning in this vein make up most of the *Foundations* – he argues, for example, that it inheres in the nature of a promise to create an obligation in the promisor;[15] and that '[i]t lies in the essence of owning that the owner has the absolute right to deal in any way he likes with the thing which belongs to him."[16]

As for *how* these concepts exist, Reinach was a metaphysical realist.[17] He argued that social acts like promises, and relations like ownership, have a distinctive mode of existence, as states-of-affairs.[18] These states-of-affairs exist (technically, 'obtain') for Reinach in a real, mind-independent way – constituents of the universe just as the physical facts that constitute them in particular instances.[19] Because general, fundamental, and abstract, states-of-affairs are, on Reinach's account, governed by *a priori* laws to be grasped by insight – accessible to intelligence, in principle independent of any experience.[20] So, for example, Reinach holds that property is a state-of-affairs.[21] Given certain sets of physical and relational facts, an instance of property may obtain.[22] But any intelligence can reason to some truths about property – including the sets of facts that would qualify and which would not – without experience of any particular instance of property, because property itself is a fundamental constituent of the universe.[23] Or so goes Reinach's account.

This central thesis of the *Foundations* is its most controversial. Indeed, even at the time he wrote, Reinach was well aware that he was arguing against the jurisprudential grain – noting that there was 'general agreement' that 'all legal propositions and concepts are *creations* of the lawmaking factors,' but that his inquiry would 'really . . .

[13] Reinach, 'Foundations' (n 8) 4.
[14] ibid 5.
[15] ibid 46.
[16] ibid 55.
[17] Kimberly Baltzer-Jaray, 'Bogged Down in Ontologism and Realism' in Rodney KB Parker (ed), *The Idealism-Realism Debate among Edmund Husserl's Early Followers and Critics* (Springer Cham 2021) 151, 161–162.
[18] Adolf Reinach, 'Concerning Phenomenology' (Dallas Willard tr), in John Crosby (ed), *The Apriori Foundation of the Civil Law: Along with the Lecture Concerning Phenomenology* (De Gruyter 2013) 145, 158.
[19] ibid 146–147.
[20] Reinach, 'Foundations' (n 8) 6.
[21] ibid 70–74.
[22] ibid.
[23] ibid.

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find what one has so emphatically denied.'[24] And the century in legal philosophy since Reinach has not been kind to metaphysical realism about legal concepts, with Critical Theory and Law and Economics carrying forward Legal Realism's nominalism about legal concepts to the present.[25]

But while Reinach held these basic legal concepts to exist, he maintained that their existence is conceptually independent of how morally we ought to interact with them.[26] A promise, as a matter of its essential character, generates an obligation, but it might be an obligation morally wrong to fulfill.[27] In this insistence that basic legal concepts are morally inert, Reinach departs from most fellow travelers in legal conceptualism. Consider Scott Hershovitz, who, with Reinach and *contra* nominalism, accepts the extralegal reality of promises.[28] But for Hershovitz, promise is an irreducibly normative concept, and its boundaries are coterminous with its moral implications – an immoral promise simply isn't a promise at all, and gives rise to no obligation.[29]

Finally, Reinach refused to infer anything about the necessary characteristics of positive law from either the concepts on which it draws or (apparently) morality – Reinach was a positivist about positive law. For example, analyzing the positive law's concept of causality in his doctoral thesis, Reinach insisted that the question is not whether the law's causal theory is 'correct' as a moral or even philosophical matter.[30] The task instead is to investigate the *positive law*'s theory of causality – with no necessary connection to the philosophically correct account.[31] Thus, Reinach insisted that, although states-of-affairs like promise and obligation exist outside of the law and are governed by essential, descriptive laws, '[t]he positive law can incorporate them into its sphere, it can also deviate from them.'[32] A 'jurist,' he argued 'need not establish what the law should mean according to logical or ethical or other norms, but rather what it in fact means.'[33]

Reinach's theory of the positive law is perhaps his least controversial commitment. His view is one recognizable, still popular position in debates about the nature of positive law – broadly within the 'positivist' umbrella.[34] But when this view is coupled

[24] Reinach, 'Foundations' (n 8) 4.
[25] See n 3.
[26] Reinach, 'Foundations' (n 8) 45.
[27] ibid.
[28] Hershovitz (n 2) 1180.
[29] ibid; John Gardner, *From Personal Life to Private Law* (Oxford University Press 2018) 12.
[30] Adolf Reinach, 'On the Concept of Causality in the Criminal Law' (2009) 1 Libertarian Papers 1, 40 (Berit Brogaard, tr).
[31] ibid.
[32] Reinach, 'Foundations' (n 8) 6.
[33] Reinach, 'Causality' (n 30) 40.
[34] Jules L Coleman, 'The Architecture of Jurisprudence' (2011) 121 Yale LJ, 5; Scott J Shapiro, 'The Hart-Dworkin Debate: A Short Guide for the Perplexed' in Arthur Ripstein (ed), *Ronald Dworkin* (Cambridge University Press 2007) 22.

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with his insistence on the extralegal reality of legal concepts, as well as their morally inert character, we can see Reinach as the singular legal philosopher he was.

2.3 EVOLUTIONARY LEGAL CONCEPTUALISM'S THREE COMMITMENTS

In 1859, Charles Darwin published *The Origin of Species*, arguing that natural selection explains the diversity and complexity of biology.[35] Darwin argued that organisms vary in random but heritable ways as to traits that correlate with reproductive success.[36] Assuming that, in our resource-constrained world, in each generation more organisms are born than can live to reproductive maturity, over time traits beneficial for survival will proliferate, and deleterious mutations will die without reproducing – explaining the gradual evolution of complexity, in diverse forms.[37]

'Evolutionary psychology' argues that natural selection has shaped our minds as much as our other organs.[38] So it holds that many basic mechanisms and proclivities of the human mind, both conscious and unconscious, are biological adaptations governed by natural selection and heritably encoded in our genes; heuristics that helped our ancestors better survive in their environment than did their competitors, operationalized in each of us by genetic inheritance.[39]

Methodologically, evolutionary psychology and cognitive science often take the cross-cultural universality of a given psychological fact as *prima facie* evidence of its genetic basis.[40] It is then a question of evolutionary theory whether such a trait could have arisen by natural selection – whether it could have contributed to the individual reproductive success of those with it, even if in complex and indirect ways.[41] And it is ultimately an empirical matter whether in fact the traits in question developed

[35] Charles Darwin, *The Origin of Species* (First Signet 2003).
[36] ibid.
[37] ibid 507.
[38] John Tooby and Leda Cosmides, 'Conceptual Foundations of Evolutionary Psychology' in David M Buss (ed), *The Handbook of Evolutionary Psychology* (Wiley 2021) 5, 5.
[39] ibid.
[40] Livia Beccacece and others, 'Human Genomics and the Biocultural Origin of Music' (2021) 22 International J Molecular Sciences 5397, 5398; David M Buss, *Evolutionary Psychology* (5th edn, Pearson 2011); Daniel L Schacter, Daniel T Gilbert, and Daniel M Wegner, *Psychology* (5th edn, Worth 2007) 26–27; RR McCrae and PT Costa Jr., 'Personality Trait Structure as a Human Universal' (1997) 52 American Psychologist 509, 509.
[41] There is a great deal of theoretical dispute about the comparative role of traditional natural selection in this process as compared to the related mechanisms of sexual selection, Richard O Prum, *The Evolution of Beauty: How Darwin's Forgotten Theory of Mate Choice Shapes the Animal World – And Us* (Doubleday 2017), contingency, Stephen J Gould and Richard C Lewontin, 'The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme' (1979) 205 Proceedings of the Royal Society B 581, and whether so-called 'group selection' is ever possible, Egbert Giles Leigh Jr, 'The Group Selection Controversy' (2009) 23 J Evolutionary Biology 6. The details of these disputes aside,

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in the hypothesized way – for which evidence of a direct genetic basis is strong evidence.[42] Theorists have applied these methods to argue that a wide range of complex psychological universals – from language to the moralized emotion of disgust and separation anxiety – are genetically mediated products of natural selection.[43]

Legal theorists drawing on evolutionary psychology have argued that many basic legal concepts could similarly be evolved, genetically grounded features of human cognition.[44] For example, the basic concept of ownership that organizes property law appears to be universal,[45] and could plausibly have evolved as an adaptation to ensure access to and dominion over resources.[46] Similar observations have been made, for instance, with respect to other basic legal concepts like promise.[47]

Just like Reinach, these evolutionary psychologists and the legal theorists who follow them hold that basic legal concepts have a real existence outside of the law. Granted, these theorists *ground* the existence of these concepts in a different way – citing evolution and a modular mind. But their conclusions are importantly similar – legal concepts (at least the most basic ones on which both Reinach and evolutionary theorists focus) are not nominalistic legal constructions designed for normative purposes; they are real concepts that exist outside of any legal system and can be analyzed descriptively.

Moreover, perhaps even more emphatically than Reinach, theorists in evolutionary psychology refuse to infer anything moral from the innate existence of concepts in our psychology. The 'naturalistic fallacy' is an oft-repeated dogma – to state a fact

evolutionary psychology holds that psychological traits arose by whatever mechanisms in fact contributed to our evolution.

[42] Alessandra Mozzi and others, 'The Evolutionary History of Genes Involved in Spoken and Written Language: Beyond FOXP2' (2016) 6 Scientific Rep 22157, 22157; Faraneh Vargha-Khadem and others, 'FOXP2 and the Neuroanatomy of Speech and Language' (2005) 6 Nature Rev Neuroscience 131, 131.

[43] ibid; James M Sherlock and others, 'The Quantitative Genetics of Disgust Sensitivity' (2016) 16 Emotion 43, 43; L Sloman, P Gilbert, and G Hasey, 'Evolved Mechanisms in Depression: The Role and Interaction of Attachment and Social Rank in Depression' (2003) 74 J Affective Disorders 107, 107.

[44] Jones and Goldsmith, (n 4); Carlton J Patrick, 'The Long-Term Promise of Evolutionary Psychology for the Law' (2016) 48 Arizona State LJ 995; Owen D Jones and Robert Kurzban, 'Intuitions of Punishment' (2010) 77 U Chicago L Rev 1633.

[45] Wilson (n 4) 3; Pascal Boyer, 'How Natural Selection Shapes Conceptual Structure: Human Intuitions and Concepts of Ownership' in Eric Margolis and Stephen Laurence (eds), *The Conceptual Mind: New Directions in the Study of Concepts* (MIT 2015) 185, 186; Julia W Van der Vondervoort, Paul Meinz, and Ori Friedman, 'Children's Judgments About Ownership Rights and Body Rights: Evidence for a Common Basis' (2017) 155 J Experimental Child Psychology 1, 2.

[46] Wilson (n 4) 17; Miyashita Haruki, 'On a Trade-Off in the Evolution of Ownership' (2018) 38 Economics Bulletin 1257.

[47] Leda Cosmides and John Tooby, 'Evolutionary Psychology and the Generation of Culture, Part II: Case Study: A Computational Theory of Social Exchange' (1989) 10 Ethology and Sociobiology 51.

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about our psychology is not to imply anything about ethics.[48] So the innate existence of, say, the concept of 'family' doesn't suggest anything about its moral significance; and it might be that we intuitively understand that the social act of promise gives rise to a 'binding' 'obligation,' but that these intuitions are morally wrong.

Finally, like Reinach, evolutionary theories of legal concepts tend to travel with a positivistic conception of the positive law. Owen Jones and Timothy Goldsmith, for example, argue that the positive law can in principle do whatever it wants, and often that it ought to – pursuing policy goals orthogonal or contrary to the basic concepts evolution has given us.[49] For Jones and Goldsmith (and other theorists in this vein) the positive law is presumed a historical artifact fully determined by social fact – not a concept with any necessary connection to facts about human psychology or morality.[50]

In short, although they ground the existence of legal concepts in different places, and draw on different evidence, evolutionary theorists and Reinach see these concepts and their relation to morality and positive law in similar ways – they agree that legal concepts exist outside the law; they agree these concepts can plausibly be the subject of determinate, descriptive reasoning; and they agree that these concepts have no necessary connection to either moral duty or positive law.

Today's evolutionary psychology, on which contemporary theorists draw, of course, did not exist in Reinach's time. Indeed, the origin of modern evolutionary psychology is often attributed to Edward O. Wilson's *Sociobiology* in 1975,[51] and today's work draws on universal grammar in linguistics in the 1960s,[52] the 'Modern Synthesis' of Darwinian natural selection with Mendelian inheritance of the 1950s and 1960s,[53] the development of game theory in the 1950s,[54] and Fisher's work on sexual selection in the 1930s.[55] Indeed, Darwinian evolution writ large has become vastly more plausible since Reinach's death if for no other reason than the 1953 discovery of DNA as the physical mechanism of inheritance – a famous handwave by Darwin himself.[56]

[48] Pinker, 'Blank Slate' (n 6) 151; David Sloan Wilson, Eric Dietrich, and Anne B Clark, 'On the Inappropriate Use of the Naturalistic Fallacy in Evolutionary Psychology' (2003) 18 Biology and Philosophy 669; Neil Levy, 'Evolutionary Psychology, Human Universals, and the Standard Social Science Model' (2004) 19 Biology and Philosophy 459.

[49] Jones and Goldsmith (n 4) 432–435.

[50] ibid 431–433.

[51] Edward O Wilson, *Sociobiology: The New Synthesis* (Harvard University Press 1975).

[52] Noam Chomsky, *Aspects of the Theory of Syntax* (MIT 1965).

[53] Nicholas H Barton, 'The "New Synthesis"' (2022) 119 Proceedings of the National Academy of Sciences e2122147119.

[54] John von Neumann and Oskar Morgenstern, *Theory of Games and Economic Behavior* (Princeton University Press 1944).

[55] M Anderson and LW Simmons, 'Sexual Selection and Mate Choice' (2006) 21 Trends in Ecology and Evolution 296.

[56] James D Watson and Francis H Crick, 'Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid' (1953) 171 Nature 737.

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That being said, though less plausible, less sophisticated, and less empirically grounded, Reinach encountered and engaged with a basic sketch of the idea. After all, in *Origin*, Darwin himself suggested that '[p]sychology will be securely based on [a new] foundation . . . that of the necessary acquirement of each mental power and capacity by gradation.'[57] Perhaps most prominently in Reinach's lifetime, the American Pragmatists – especially William James – drew on Darwin's theory in suggesting that human psychological 'instincts' might have evolved.[58] Reinach was familiar with this work, having written an obituary for James after his 1910 death.[59] And Reinach's mentor Husserl spent a chapter in his *Prolegomena* responding to the quasi-evolutionary logical theories of Ernst Mach and Richard Avenarius.[60]

Thus, when Reinach insisted that his theory is *not* psychological – 'independent of human knowledge, independent of the organization of human nature'[61] – and *not* an evolutionary account of human cognition – 'not only for our world but for any conceivable world'[62] – it was *not* out of ignorance of what a theory of legal concepts grounded in evolutionary psychology could look like. Granted, and importantly (about which more below),[63] the proto-evolutionary psychology in vogue at the time – that of the Pragmatists – was substantively quite different from today's in its theory of mind. James, Mach, and Avenarius happened to be empiricists about concepts – from their perspective, the human mind and its capacity for subjective experience may have evolved, but our conceptual schema emerge from experience and social linguistic partitioning, not genetics.[64] Today, evolutionary psychologists overwhelmingly posit a modular, computational mind ready built with innate concepts.[65] Still, it is not as though the basic idea were not out there in Reinach's time.

To understand Reinach's efforts to distinguish his theory from psychological ones – notwithstanding their superficial compatibility – then, we have to go deeper and take seriously what was at stake for him in grounding legal concepts in metaphysics rather than an evolutionary account of human psychology.

[57] Darwin (n 35) 506.

[58] William James, *Principles of Psychology* (originally published 1890, Harvard University Press 1981) 274–285; Susan Haack, 'The Pragmatist Tradition: Lessons for Legal Theorists' (2018) 95 Washington U L Rev 1049, 1055, n 38.

[59] Adolf Reinach, 'William James and Pragmatism' in Barry Smith (tr and ed), *Speech Act and Sachverhalt* (Springer 1987) 291.

[60] Edmund Husserl, *Logical Investigations, Vol. I* (JN Findlay tr, Routledge 2001) 123.

[61] Reinach (n 8) 139.

[62] ibid 138.

[63] Infra, nn 113–115 and accompanying text.

[64] James, 'Principles' (n 58) 274–285; William James, *Essays in Radical Empiricism* (Harvard University Press 1912); infra nn 113–115 and accompanying text.

[65] Steven Pinker, *How the Mind Works* (Norton 1997); Daniel C Dennett, *Consciousness Explained* (Back Bay 1992); Henry Plotkin, *Evolution in Mind: An Introduction to Evolutionary Psychology* (Harvard University Press 2000).

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2.4 REINACH, LEGAL CONCEPTS, AND THE *PSYCHOLOGISMUS-STREIT*

The proto-evolutionary psychology of the *belle époque* was missing many important theoretical and empirical pieces. But it was wildly fashionable – a 'psychologically obsessed age.'[66] And in the increasingly naturalist intellectual climate after Darwin, psychology aspired to be descriptive and empirical. During this period, foundational psychologists like Sigmund Freud, William James, Wilhelm Wundt, and Reinach's PhD advisor Theodor Lipps hoped to ground a new science of mind-as-brain in empirical study, seeking laws of human thought as universal and empirical as the laws of physics.[67]

One intellectual movement during this time was an effort to situate intuitions about logic and mathematics in psychology – to argue that they were laws of human thought, not truths of our universe.[68] It was against this view that Gottlob Frege inveighed when he launched the *Psychologismus-Streit* in 1884. In his *Foundations of Arithmetic* and a series of works that followed, Frege argued against what he called 'psychologism' about math in particular, arguing that mathematical and logical rules are *a priori*, nonempirically true.[69] And thus was joined the *Psychologismus-Streit* that dominated German-language philosophy until the War.[70]

Frege's arguments against psychologism were suggestive and question-begging rather than dispositive – math, for example, is the most exact of all sciences; psychology perhaps the least.[71] Psychologism conflates 'true' with 'taken-to-be-true';[72] (but isn't that the point?). Perhaps most powerfully, Frege argued that psychologism assumes or leads to solipsism – if numbers are just subject-specific ideas, how could we communicate?[73] '[A] hitherto unknown kind of madness.'[74] But, regardless of their validity, Frege's arguments against psychologism were enough to convince that other titan of *fin-de-siècle* German philosophy, and one importantly closer to Reinach – Edmund Husserl.[75]

[66] Husserl (n 60) 64.

[67] James, 'Principles' (n 58); Wilhelm Wundt, 'On Psychological Methods' (1883) 1 *Philosophische Studien* 1; Sigmund Freud, *The Interpretation of Dreams* (Basic 2010).

[68] John Stuart Mill, *A System of Logic, Ratiocinative and Inductive* (first published in 1843; Cambridge University Press 2011); Benno Erdmann, *Logik, Logische Elementarlehre* (Max Niemeyer 1892).

[69] Gottlob Frege, 'The Foundations of Arithmetic' in Michael Beaney (ed and tr), *The Frege Reader* (Blackwell 1997) 84; Gottlob Frege, 'Grundgesetze der Arithmetik, Volume I' in Michael Beaney (ed and tr), *The Frege Reader* (Blackwell 1997) 194; Gottlob Frege, 'Book Review of Husserl 1891' (1894) 103 *Zeitschrift für Philosophie und philosophische Kritik* 313.

[70] Martin Kusch, 'Psychologism' in Edward N Zalta (ed), *The Stanford Encyclopedia of Philosophy* (online 2020).

[71] Frege, 'Foundations' (n 69) 87.

[72] Frege, 'Grundgesetze' (n 69) 202.

[73] ibid 206.

[74] ibid 203.

[75] There is some historical dispute as to whether it really was Frege's criticism that dissuaded Husserl from psychologism (and indeed whether Husserl had ever really endorsed

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Arguing against psychologism – and grounding his new method of phenomenology as an alternative – became one of Husserl's primary pre-War projects – 'Husserl's *Prolegomena* has long been regarded as the pre-eminent statement of logical anti-psychologism.'[76] Husserl's arguments on this score were largely of the same flavor as Frege's – logical rules are more determinate than psychological rules, logical rules are phenomenologically *a priori*, etc.[77] And they are vulnerable to the same charges of circularity – presuming the reality of strict laws of logic when that is what the dispute is about.[78] But Husserl argued perhaps most forcefully against psychologism as entailing relativism. Psychologism, he says, amounts to 'species relativism' or 'anthropologism' – the hypothesis that principles of logic could be true *for us* but different for some other species.[79] 'Absurd,' says Husserl.[80]

While this controversy was kicking into gear, Reinach was a graduate student under Theodor Lipps, who was rather a bogeyman to Husserl for suggesting that 'logic is a psychological discipline.'[81] With his fellow students, Reinach read Husserl, found himself convinced, and decamped to Göttingen where he took a position as Husserl's assistant and 'worked closely with Husserl in the preparation of the second edition of the *Logical Investigations*.'[82] Reinach's break with Lipps and his affiliation with Husserl, then, was largely the result of the latter's convincing him that the psychologism of the former was in error.[83]

With this intellectual context, Reinach's efforts to distance himself from a psychological quasi-realism of legal concepts is hardly puzzling. The *Psychologismus-Streit* was a general debate over the relationship between metaphysics and psychology that he had very much joined – so was persuaded by the anti-pyschologist side to uproot his life and help fight Husserl's war against his old mentor. And transcripts of Reinach's seminars show that he 'was perhaps the only philosopher in Germany at

psychologism), but regardless it was after Frege that Husserl took up the mantle of anti-psychologism. Martin Kusch, *Psychologism: A Case Study in the Sociology of Philosophical Knowledge* (Routledge 1995) 12–13.

[76] Robert Hanna, 'Husserl's Prolegomena and the Truth in Psychologism' (1993) 53 Philosophy Phenomenological Res 251, 252.

[77] Husserl (n 60) 46–55.

[78] Paul Natorp, 'On the Question of Logical Method in Relation to Edmund Husserl's Prolegomena to Pure Logic' in JN Mohanty (ed), *Readings on Edmund Husserl's Logical Investigations* (Springer 1977) 55, 57.

[79] Husserl (n 60) 78–79.

[80] ibid.

[81] Quoted in Dale Jacquette, *Philosophy, Psychology, and Psychologism: Critical and Historical Readings on the Psychological Turn in Philosophy* (Springer 2006) 88, 89.

[82] John F Crosby, 'A Brief Biography of Adolf Reinach' in John F Crosby (ed), *The Apriori Foundations of the Civil Law: Along with the Lecture 'Concerning Phenomenology'* (De Gruyter 2013) viii.

[83] Florian Gödel, 'An Introduction to Moritz Geiger's Psychological Contribution on Empathy' (2015) 8 Dialogues in Philosophy, Mental and Neuro Sciences 161.

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this time lecturing on the work of Frege.'[84] The question of whether the basic structures of our reason reflect timeless, *a priori*, metaphysically real truths or psychological facts was among the primary intellectual occupations of Reinach's life.

Through this lens, Reinach's metaphysical realism about legal concepts was another front in the war over psychologism – in law rather than logic or mathematics. Reinach insisted that truths about legal concepts – for example, that a claim dissolves once waived – have the same ontological status as the law of noncontradiction or 1 + 1 = 2; that they were essentially, mind-independently true.[85] Indeed, throughout *Foundations*, Reinach analogizes reasoning about the essence of legal concepts to the philosophy of mathematics – '[i]n immersing ourselves in the essence of these entities ... we grasp connections in a manner analogous to the way in which we know when we immerse ourselves in the nature of numbers and geometrical forms';[86] 'there are eternal laws governing these legal entities and structures, laws which are independent of our grasp of them, just as are the laws of mathematics.'[87]

Moreover, in trying to show that legal concepts have the same kind of reality as mathematical concepts, part of Reinach's project was to show the *breadth* of the *a priori* – its usefulness and applicability not just to the suite of basic mathematical and logical principles long considered *a priori* in any event. Indeed, as far as Reinach was concerned, Husserl's arguments against logical psychologism were not merely effective against *logical* psychologism, but in fact convincingly demonstrated the existence of a vast range of really existent *a priori* states-of-affairs that philosophy had long failed to appreciate.[88]

We can reason about certain legal concepts in the same way that we can reason about numbers, Reinach is saying in *Foundations*, and the same arguments against psychologism apply – we have discovered the realm of the 'pure essential laws of right.'[89] And this legal case study, then, might help us see that the realm of the *a priori* 'extends absolutely everywhere' – 'one of the most important things in philosophy, and if one thinks it through completely, one of the most important things in the world.'[90] Perhaps Reinach's deepest personal philosophical commitment.

[84] Karl Schuhmann and Barry Smith, 'Adolf Reinach: An Intellectual Biography' in Kevin Mulligan (ed), *Speech Act and Sachverhalt: Reinach and the Foundations of Realist Phenomenology* (Springer 1987).

[85] Kimberly Baltzer-Jaray, 'Phenomenological Jurisprudence: A Reinterpretation of Adolf Reinach's Jarhrbuch Essay' in JA Simmons and JE Hackett (eds), *Phenomenology for the Twenty-First Century* (Palgrave Macmillan 2016) 118, 118.

[86] Reinach, 'Foundations' (n 8) 4.

[87] ibid 6.

[88] Reinach, 'Concerning Phenomenology' (n 18) 15; Barry Smith, 'On the Austrianness of Austrian Economics' (1990) 4 *Critical Review* 212.

[89] Reinach, 'Foundations' (n 8) 139.

[90] Reinach, 'Concerning Phenomenology' (n 18) 156.

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2.5 NATURAL SELECTION AND ONTOLOGY

But *we* are not Adolf Reinach, and with presumably less personal investment in Husserl's vindication, it is fair to wonder whether indeed the sharp distinction he drew between phenomenological and psychological accounts of law amounts to all that much for legal theory. I argue that for at least two interrelated reasons legal theorists need not be as preoccupied as Reinach with the ontological status of concepts, at least between evolutionary theories and his own phenomenological realism. First, the difference between *evolutionary* psychological accounts and metaphysical realism is less wide than Reinach, Husserl, and Frege appear to have realized. Second, closely considered, Husserl's and Frege's arguments against psychologism are substantially more persuasive in their own fields of logic and mathematics than they are in law.

Recall one of Husserl's strongest arguments against psychologism – it entails the possibility of 'species relativism'; of the law of noncontradiction's being true as a matter of human psychology but false for some intelligent alien species.[91] In other words, psychologism suggests *ontologically arbitrary* variation across different species' 'laws of thought.' From this perspective, it is an argument against psychologism to point out that it doesn't appear that such variation exists – we *haven't* encountered species that seem to behave as though they have radically different understandings of the basic fabric of the universe than our own.

And consider Reinach:

> Apriori connections find application … in the events of nature. If these connections are conceived of as thought-laws, then the question of how this is possible arises. How does it happen that nature complies with the laws of our thought? Are we to assume here an enigmatic pre-established harmony? … The reason why nature should accommodate itself to the laws of our thinking is not susceptible to insight.[92]

If the principles of logic, mathematics, and private law are just laws of thought, the argument goes, what *keeps* them from being *arbitrary*? And as an actual empirical matter, it doesn't look like they are – the basic ways in which we think *do* seem to largely track reality. If we have one rock and another, we really do have two; we have yet to encounter in the macro world circumstances under which the proposition 'there is now a hungry lion at the cave entrance' is both true and false at the same time.

This is an entirely fair argument against psychologism *per se* – strongly suggestive if not logically dispositive. As against the suggestion that our concepts are rules of thought *full stop*, it is fair to wonder why they wouldn't vary arbitrarily as across individuals, species, or between individuals and the world around them. But it is *not*

[91] Husserl (n 60) 78–79.
[92] Reinach, 'Concerning Phenomenology' (n 18) 159.

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a particularly powerful argument against *evolutionary* psychologism. Indeed, if we assume that it is *natural selection* that has given rise to innate psychological concepts – as opposed to, say, random brain development or Humean empiricism – psychologism and metaphysical realism look, from a practical, emergent perspective, much more similar.

Say what you will about natural selection, but it *is not arbitrary*. Indeed, it is thoroughly dependent on and necessarily reflects ontology. From this perspective, basic legal concepts might be both metaphysical truths and laws of thought; or they may only be laws of thought, but which approximate in some nonarbitrary way whatever the truths of metaphysics are.

We can start with the observation that the kind of cognitive concepts and processes at issue – from, say, the law of noncontradiction to intuitions about the nature of 'promise' – are highly energy intensive. For starters, they require a brain, and a fairly complex one – and all of the energy and long and vulnerable childhood that requires.[93] Beyond that minimum, each additional complex informational faculty – like the capacity for language – requires further energy; more calories to sustain neurons rather than, say, physical defenses or the ability to fly.[94] Granting the premises of evolutionary psychology, we can assume that, unless these concepts were fitness enhancing in some way, we presumably would not have them – ancestors who had evolved them would have been outcompeted by organisms with more efficient energy allocation.[95] 'According to evolutionary biology, the structural complexity of a given [trait] can provide evidence that the [trait] is an adaptation, even if nothing is known about [its] causal role.'[96]

So how might concepts like noncontradiction or the relationship between claim and waiver be fitness enhancing? Well, one *obvious* answer is because the *universe really is governed by these laws*.[97] Suppose that we actually do live in a universe in which the law of noncontradiction is true – that it genuinely cannot be that a

[93] Michael A Hofman, 'Evolution of the Human Brain: When Bigger Is Better' (2014) 8 Frontiers in Neuroscience 1; Stephen C Cunnane, Laurence S Harbige, and Michael A Crawford, 'The Importance of Energy and Nutrient Supply in Human Brain Evolution' (1993) 9 Nutrition and Health 219; Ana Navarrete, Carel P van Schaik, and Karin Isler, 'Energetics and the Evolution of Human Brain Size' (2011) 480 Nature 91.

[94] Chet C Sherwood and others, 'Evolution of Increased Glia-Neuron Ratios in the Human Frontal Cortex' (2006) 103 Proceedings of the National Academy of Sciences 13606.

[95] Matt Ridley, *The Red Queen: Sex and the Evolution of Human Nature* (2nd edn, Harper 1993); Steven Pinker and Paul Bloom, 'Natural Language and Natural Selection' (1990) 13 Behavioral Brain Sciences 707, 709.

[96] Shaun Nichols and Todd Grantham, 'Adaptive Complexity and Phenomenal Consciousness' (2000) 67 Philosophy Science 648, 648.

[97] James Toomey, 'Evolutionary Anamnesis' (2022) 37 Biology and Philosophy 55, 56; S Lehar, 'Gestalt Isomorphism and the Primacy of Subjective Conscious Experience: A Gestalt Bubble Model' (2003) 26 Behavioral Brain Sciences 375; WS Geisler and RL Diehl, 'A Bayesian Approach to the Evolution of Perceptual and Cognitive Systems' (2003) 27 Cognitive Science 379.

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proposition is both true and false at the same time. An embedded cognitive shortcut to that effect would be fitness enhancing. Indeed, it is strictly fitter than its alternatives. If we know 'there is now a hungry lion outside of the cave,' we know to wait, because it simply cannot be that there is *not* a lion outside the cave. This is less energy intensive than some kind of freewheeling general intelligence that must deduce noncontradiction *ex nihilo*, and is much safer than not understanding noncontradiction at all. If 1 + 1 really does = 2, and knowing that has any implications for reproductive success, it is at least marginally fitness enhancing to understand that innately.

The same could be true of the concepts of private law – maybe we've evolved to intuitively understand that promise gives rise to obligation *because that really is true* – just as Reinach believes. You might wonder how such a thing is possible, how it could be that the concept of 'promise' actually exists in a universe that has been around, as far as we know, for billions of years before the first promising entity. Which is, of course, entirely fair. But I don't know *how* or *why* the law of noncontradiction might exist either; or math or the laws of physics or any of the truths that we may have been the first to understand but apparently long preexisted us.[98]

Granted, some philosophers have argued that although this line of reasoning might work for descriptive constituents of the universe, it could not account for the evolution of true moral intuitions or evaluative attitudes.[99] But even if this is right,[100] recall that for Reinach these basic legal concepts *are* descriptive – they exist in the same way that logic and math do, and are conceptually independent of our moral intuitions about them and the nature of moral reality.[101] If you reject that, your disagreement with Reinach goes deeper than the concepts' *mode* of existence, to the *nature* of the thing – a defensible view, but no response to an evolutionary grounding of something like *Reinach's* jurisprudence. After all, proponents of this 'Darwinian Debunking' argument are perfectly happy to concede that natural selection can give rise to psychological concepts that *descriptively* reflect ontology,

[98] Martin Heidegger, *An Introduction to Metaphysics* (Ralph Manheim tr, Yale University Press 1959) 6–7; James Ladyman, 'The Foundations of Structuralism and the Metaphysics of Relations' in Anna Marmodoro and David Yates (eds), *The Metaphysics of Relations* (Oxford University Press 2015) 177, 179–80.

[99] Sharon Street, 'A Darwinian Dilemma for Realist Theories of Value' (2006) 127 Philosophical Studies 109; Michael Ruse, *Taking Darwin Seriously: A Naturalistic Approach to Philosophy* (2nd edn, Prometheus 1986).

[100] And it is hardly without controversy. William J Fitzpatrick, 'Why There is No Darwinian Dilemma for Ethical Realism' in Michael Bergmann and Patrick Kain (eds), *Challenges to Moral and Religious Belief: Disagreement and Evolution* (Oxford University Press 2014) 237; Knut Olav Skarsaune, 'Darwin and Moral Realism: Survival of the Iffiest' (2011) 152 Philosophical Studies 229; David Enoch, 'The Epistemological Challenge to Metanormative Realism: How Best to Understand It, and How to Cope with It' (2010) 148 Philosophical Studies 413.

[101] Section 2.2.

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and argue rather against inferring moral obligation from that, entirely consistent with Reinach's picture.[102]

In any event, if this all is right – and we've evolved basic legal concepts as a matter of innate psychology because they really exist – Reinach's theory of the realism of concepts and a kind of evolutionary psychologism could be effectively coterminous. The concepts would exist *both* as an ontological matter – as Reinach would have it – *and* as a matter of innate psychology – as the evolutionary psychologists would have it. And indeed, the latter would be true *because of* the former.

Of course, there are other possibilities – natural selection hardly demands that our innate concepts are a one-to-one map of ontology (and obviously they are not – there is a vast range of electromagnetic radiation we are incapable of seeing, and our intuitions of motion are relative to the earth's surface, and so on). But although natural selection does not compel a relationship of correspondence between ontology and innate psychology, it does entail *some relationship* – no options of which are *arbitrary* in the way Reinach, Husserl, and Frege were really worried about.

Suppose that in fact all that exists is a sea of particles. And even suppose *arguendo* that quantum mechanics is right that in the end these particles behave according to probability, not law – a particle actually can be in two places at once; the cat can be both dead and alive.[103] How might the law of noncontradiction as a cognitive heuristic be fitness enhancing in such a universe? Presumably it could only have evolved if it at least roughly reflected ontology *as relevant to us* – a kind of innate nominalism.[104] So long as a law of noncontradiction sufficiently approximates the reality within which the intelligence has to operate, an innate noncontradiction principle could evolve.

There is, indeed, suggestive evidence that this is precisely the relationship between evolved minds and the universe in which they exist. For example, our lay, intuitive physics much more closely approximates the Newtonian mechanics of the world we must navigate than the underlying quantum structure that might really constitute the universe.[105] But while it is fitness enhancing to intuitively grasp how to evade falling objects, our ability to mate evidently almost never turns on the off chance that all our electrons are in the wrong place or whatever. Intuitive, quasi-Newtonian mechanics *is* a pretty good approximation of how objects behave in macro space.[106] Nominalists of all kinds recognize that categories can be efficient mechanisms to bundle, use, and exchange pertinent information, even if those

[102] Street (n 99) 112–113.
[103] David J Griffiths and Darrell F Schroeter, *Introduction to Quantum Mechanics* (3rd edn, Cambridge University Press 2018).
[104] Toomey, 'Evolutionary Anamnesis' (n 97) 55–56.
[105] James R Kubricht, Keith J Holyoak, and Hongjing Lu, 'Intuitive Physics: Current Research and Controversies' (2017) 21 Trends in Cognitive Sciences 749.
[106] HC Corben and Philip Stehle, *Classical Mechanics* (2nd edn, Dover 1994).

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categories don't themselves exist metaphysically and are fuzzy at the margins.[107] This account might be equally applicable to the anterior level of natural selection rather than posterior social or linguistic construction.

The important point is that, while this kind of innate nominalism does not faithfully replicate the deep structure of reality, it is hardly *arbitrary*. It only works if it packages reality in ways that *really are useful*. And that is nothing but a question of ontology. The objects that reflect light at 700 nm really are physically more similar to those that reflect light at 701 nm than those that reflect at 400 nm – and innate psychology does not draw a line between 700 and 701, but somewhere between 400 and 700 most languages will demarcate something like 'blue' from something like 'red."[108] Even if our evolved concepts are rough approximations of reality, then, or nominalistic but useful categories that do not really exist, they necessarily bear some relationship to metaphysical reality.[109]

Husserl, at least, appears to have been willing to accept all this. After a hundred pages of polemic against psychologism, he is more favorable in his treatment of the 'attempt to provide a *biological* basis for logical intuitions,' conceding that '[s]urvival requires a certain adaption to external nature . . . the capacity to judge things more or less rightly, to foresee the course of events, to assess causal consequences, etc.,' and that '[i]f the natural origin of the machinery which economizes thought is not to remain a miracle, . . . we shall have to . . . show . . . how a procedure which has had such success could and must have issued spontaneously out of purely natural causes."[110]

But Husserl rejected this hypothesis for failing to 'consider how mental processes preserve truth."[111] The problem was that Husserl did not see how natural selection might give rise to a computational, conceptual mind of the sort he envisioned.[112] And his foils in quasi-evolutionary theories of mind – Ernst Mach and Richard Avenarius – were hardly any help, being associationists about thought and radical empiricists about concepts.[113] But it is *today's* evolutionary theorists who are perhaps

[107] Henry E Smith, 'On the Economy of Concepts in Property' (2012) 160 U Penn L Rev 2097.

[108] Ara Norenzayan and Steven J Heine, 'Psychological Universals: What Are They and How Can We Know?' (2005) 131 Psychological Bulletin 763, 764; DH Sliney, 'What Is Light? The Visible Spectrum and Beyond' (2016) 30 Eye 222, 225–226; CL Hardin, 'A Spectral Reflectance Doth Not a Color Make' (2003) 100 J Philosophy 191, 196–199.

[109] An obligatory caveat – evolutionary psychologists frequently emphasize that our cognitive faculties presumptively evolved to solve survival problems in the so-called Environment of Evolutionary Adaptedness (some 2.6 million to 12,000 years ago) and that they may therefore be out of step with the structure of contemporary society. But we're talking about metaphysics and the basic structure of the universe here, which presumably has not changed radically since then, and if it had, I imagine we would be, to put it mildly, feeling the selection pressure.

[110] Husserl (n 60) 123, 128.

[111] Jesse D Lopes, 'Phenomenology as Proto-Computationalism: Do the Prolegomena Indicate a Computational Reading of the Logical Investigations?' (2023) 39 Husserl Studies 47, 60.

[112] ibid.

[113] Iulian D Toader, 'Talking Past Each Other: Mach and Husserl on Thought Economy' in F Stadler (ed), *Ernest Mach – Life, Work, Influence* (Springer Cham 2019) 213, 217; Colin McGinn, 'Mach & Husserl' (1972) 3 J British Society Phenomenology 146, 148;

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the *strongest* exponents of a modular, computational theory of mind – who argue that in fact natural selection is the best explanation for a computational mind; that evolutionary psychology has defeated associationism and vindicated something more like an innate *a priori*.[114] If Husserl had *this* evolutionary theory of mind available, perhaps he would have been more receptive.[115]

In short, if we accept that indeed it is *because of* natural selection that we have certain 'laws of thought,' we *must* accept certain ontological claims.[116] With this perspective on the interaction between natural selection and metaphysics, it isn't surprising that we don't observe species behaving as though they had radically different ontological perspectives than us – they would have had to have evolved in radically different metaphysical conditions. Nor is it surprising that our concepts map reality as we perceive it. Of course they do, that is how natural selection works. If they didn't (radically, regularly, etc.) we would die and organisms with more useful concepts would flourish in our stead.

In the end, of course, Husserl and Reinach are right that metaphysical realism is a *different* commitment than evolutionary psychologism. These theories *could be* coterminous, but there is obviously daylight between them. Natural selection is not a perfect designer. We have vestigial organs.[117] Most agree that at least some traits are spandrels – byproducts of the evolution of some other adaptation.[118] And some argue that sexual selection *can* result in the development of arbitrary expensive traits.[119] But all that is controversial, and natural selection remains a brutal constraint – when vestigial organs become too energy intensive, or spandrels too far from the purposes for which they were adaptive, or mating rituals too over-the-top, organisms will start dying before reproducing.

So, yes, while Reinach was right that his theory is different from one grounded in evolutionary psychology, he was wrong about *how* different, and in what sense. We might have evolved concepts that do not 'really' exist. They might mis-map reality, and it's possible that an intelligent species of angels with a different evolutionary history might have slightly different ones. But they are not *arbitrary* and *cannot possibly be too far off*. From this perspective, then, evolutionary theories of legal concepts look much closer to Reinach's.

Milič Čapek, 'Ernst Mach's Biological Theory of Knowledge' (1968) 18 Synthese 171; Paul Pojman, Ernst Mach's Biological Theory of Knowledge (Dissertation, Department of History and Philosophy of Science, Indiana University, 15 June 2000).

[114] Zenon W Pylyshyn, *Computation and Cognition: Toward a Foundation for Cognitive Science* (MIT 1986); Konrad Lorenz, 'Kant's Doctrine of the A Priori in the Light of Contemporary Biology' in Michael Ruse (ed), *Philosophy after Darwin* (Princeton University Press 2010) 231.

[115] Husserl (n 60) 129–30.

[116] I am indebted to my former colleague John Humbach for this point.

[117] Biswanath Mukhopadhyay and others, 'Spectrum of Human Tails: A Report of Six Cases' (2012) 17 J Indian Association Pediatric Surgeons 23.

[118] Gould and Lewontin (n 41) 581.

[119] Prum (n 41).

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2.6 REINACH'S LEGAL ANTI-PSYCHOLOGISM

In short, Reinach – and his mentors against psychologism – appear to have overestimated the differences between evolutionary accounts of concepts and metaphysical ones. But it is still worth taking seriously these thinkers' affirmative arguments for metaphysical realism. After all, if Reinach or his intellectual progenitors had managed to *demonstrate* the metaphysical realism of legal concepts, or show some reason that metaphysical reality, and only metaphysical reality, could do the necessary work, whether evolutionary accounts overlap significantly might be beside the point. Reinach himself did not spend all that much time making affirmative arguments for metaphysical realism – rather, he largely assumed it was right; psychologism wrong. Presumably he thought the work had already been done – that Husserl and Frege had won. From this perspective, it seems fair to attribute to Reinach Husserl and Frege's arguments against psychologism. The problem for Reinach is that those arguments are much stronger in mathematics and logic than in private law.

To analyze whether any of Reinach, Husserl, and Frege have given us substantial affirmative reason to accept that metaphysical realism, and not evolutionary accounts of human psychology, is the mode of existence of basic concepts they are talking about, let us take their beliefs about psychologism (whether in logic, math, or law) as making the following two claims –

(1) there exist, metaphysically, certain basic concepts (of logic, math, or law) (a metaphysical claim);

(2) about which insight or intuition can reveal essential truths (an epistemic one).[120]

And what we are trying to figure out is whether any of these thinkers have given us a basis on which to reject –

(1a) the relevant concepts exist as features of human psychology

as a substitute for (1).

What *are* the arguments, then, for (1)? Most of them, as already alluded to, are hardly slam dunks. Frege and Husserl say that logical and mathematical laws cannot be derived from psychological laws because psychological laws are vague where logic is precise – but why not? Surely clarity can sometimes emerge on less-predictable forms – as Newtonian from quantum mechanics. They say that logic by its nature is True-out-there and psychologism requires it to be true in some relativistic sense, but this begs the question. It is circular to *assume* the necessity of Truth-out-there when that is precisely what the dispute is about – the psychologistic camp simply denies that logic, or anything, *is* True-out-there, or denies the

[120] Section 2.2.

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possibility that we could know.[121] These sorts of arguments aren't going to cut it – if this were all we had to insist on (1) over (1a), I wouldn't bet the farm.[122]

One stronger argument, already discussed in Section 2.5, is inductive – (2) is true, which suggests something like (1) must be.[123] This is how Reinach proceeds, his clearest argument for (1) in the *Foundations* is that he is *showing* it by *doing* (2) – '[w]e shall *show* that the structures which one has generally called specifically legal have a being of their own . . ..'[124] And for Frege and Husserl, we *can* after all do math and use logic; it must have some kind of existence.

This argument is fair, as far as it goes. It is inductive, and not logically conclusive.[125] But, as discussed, it *is* obviously on to something. Natural selection depends on ontology, and our evolved concepts necessarily bear some nonarbitrary relationship to metaphysics. Indeed, if (1) *is* true, (1a) likely would be as well, *because* of (1). And if (1a) is true, *something like* (1) must be. But if we are trying to show (1) *over* (1a) where they come apart – if we are trying to show that some concept exists metaphysically as opposed to *just* as a matter of human psychology, or both – this inductive approach is much more persuasive for Frege and Husserl in math and logic than it is in law.

This is because law and the social acts that, on Reinach's account, constitute it, are different from math and logic in precisely the relevant respect – even if legal concepts exist as a matter of metaphysics, at least at present truths about them are only accessible to, and visible among, human beings. That makes it *impossible* to inductively distinguish between (1) and (1a) – Reinach's phenomenology can do (2), which can show that something like (1a) must be true, and maybe (1a) is because of (1), but maybe it is because of something *like* (1), and maybe it is not (for example, it might be the result of sexual selection).[126]

Consider the grounds on which Frege and Husserl can suggest (1). They can start by doing (2) themselves – reasoning, apparently *a priori*, to apparently true conclusions. But they might be crazy. So, like Socrates in the *Meno*, they can find random people and do (2) together.[127] But those people might be crazy. So, they talk to everyone, and together everyone does (2). (1) is looking more and more likely. But *everyone* might be crazy. That is just another way of saying that (1a), or some

[121] E Pivcevic, *Husserl and Phenomenology* (Routledge 1970) 38–40; GJ Massey, 'Some Reflections on Psychologism' in T Seebohm, D Føllesdal, and J Mohanty (eds), *Phenomenology and the Formal Sciences* (Springer 1991) 186.

[122] GP Baker and PMS Hacker, 'Frege's Anti-Psychologism' in MA Notturno (ed), *Perspectives on Psychologism* (Brill 1989) 74; Massey (n 121) 183; D Føllesdal, *Husserl und Frege: Ein Beitrag zur Beleuchtung der Entstehung der phänomenologischen Philosophie* (H Aschehoug and Co 1958).

[123] See Section 2.5.

[124] Reinach (n 8) 4 (emphasis added).

[125] Bertrand Russell, *Human Knowledge: Its Scope and Limits* (George Allen and Unwin 1948) 450.

[126] Prum (n 41).

[127] Plato, 'Meno' (WKC Guthrie tr) in Edith Hamilton and Huntington Carnes (eds), *Plato: The Collected Dialogues* (Princeton University Press 1961) 353–384.

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psychologism less correlated with ontology than an evolutionary account, might be true, and could account for our ability to collectively (2).

But Frege and Husserl *can* do more than merely (2) with all human beings – they can look at the structure of the world around them. They can see, as we saw above, that animals appear to cogitate according to similar logical rules to the ones they have relied on at (2). Of course that doesn't *prove* (1), rather than convergent evolution (which might well be *because of* (1), but could be for other reasons)[128] but it is something. And Frege and Husserl can go even further, and point out that it appears that the conclusions we reach while (2)ing *are* true about everything – that the world *does* behave according to our *a priori* logical structure, and our *a priori* mathematical conclusions account for innumerable phenomena.[129]

Reinach cannot do this. Social acts don't happen without social entities.[130] And, for Reinach, human beings are the only entities of which we are currently aware that can participate in or reason about legal concepts. '[A]nimals too can be bearers of experience, but never of claims or obligations.'[131] He *claims* that his conclusions apply to angels, gods, and devils, but, as empirical verification of this might be the best way to inductively distinguish between something more like (1) and something more like (1a), forgive me for waiting.[132]

Finally, this brings us to what seems to be the crux of the issue for Frege and Husserl. It is not really an argument at all. It is a stipulation. Frege, for example, admits that '[t]here appears such a world of difference between me and the psychological logicians that there is no prospect of influencing them through my book.'[133] But he inveighs –

> When will an end be put to this once and for all! Everything is eventually dragged into the realm of psychology; the boundary between the objective and the subjective disappears more and more, and even actual objects are treated psychologically as ideas. . .. Thus everything leads to idealism and with perfect logical consistency into solipsism.[134]

'*If we want to emerge from the subjective at all*, then we must *conceive* of knowledge as an activity that does not create what is known but grasps what already exists.'[135]

And Husserl – 'I . . . find myself at a point which I have either to recognize as the Archimedean point from which the world of doubt and unreason may be levered on its hinges, or which I may sacrifice at the peril of sacrificing all reason and

[128] See Section 2.5.
[129] Reinach, 'Concerning Phenomenology' (n 18) 159.
[130] Reinach, 'Foundations' (n 8) 11.
[131] ibid.
[132] ibid 47.
[133] Frege, 'Grundgesetze' (n 69) 207.
[134] ibid 205–206.
[135] ibid 206 (emphasis added).

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knowledge';[136] 'One cannot persuade the subjectivist any more than one can the open sceptic, a man simply lacking the ability to see that laws . . . have their roots in the mere meaning of truth . . . must [embrace a position] count[ed] as the purest nonsense.'[137]

In other words, Frege and Husserl hold that (1) *must* be true. *Must* (1) be true, though? Of course not, not literally; not logically.[138] Hence the stipulation, and its insistence. It *could*, 'in principle,' be that there are some species for which the concept of equality 'exists' and those it does not. The universe *could be* fundamentally disordered; I *could* be a brain-in-a-vat – 'a dream about being a person.'[139] It's not possible for a concept like equality to exist or not exist *metaphysically* across species, and, *if* the law of noncontradiction is metaphysically true, then it couldn't be true and false for different species,[140] but that takes us right back to the circularity. Confining ourselves to strict possibility, we face the specter of an incoherent, disordered, meaningless universe that has only to this point appeared to each of us coherent and ordered and contemplative of meaning. We always have; we always will.[141]

Frege and Husserl's 'must,' in '(1) *must* be true,' then, is not the 'must' of logical entailment. It is, rather, a certain kind of 'must *if*' – (1) must be true *if anything matters*. Granted, (1) might not be true. But perhaps then it'd be time to throw in the towel – at least for their project, presumably for projects, period. Why is this? Stipulating the metaphysical existence of one's concepts of investigation hardly seems demanded by conceptual analysis as such. The language philosophers of the mid-century, for instance (to whom Reinach bears a striking resemblance)[142] were perfectly happy to parse the conceptual structure of speech while disclaiming any views on its metaphysical correspondence.[143] Plenty of people, also like Reinach, analyze the descriptive entailments of legal concepts without stipulating anything like (1), and certainly without the high melodrama of Frege and Husserl on the point.[144]

But this kind of ontologically detached analysis is not a possibility for Frege and Husserl, precisely because of *what they are analyzing*. The difference is that a language or legal philosopher need not tell us anything about how we *ought* to

[136] Husserl (n 60) 94.
[137] ibid 78.
[138] Hanna (n 76) 270–274.
[139] Nic Pizzolatto, 'The Locked Room,' *True Detective* (HBO January 16, 2014).
[140] Husserl (n 60) 78–79.
[141] Robert Nozick, *Philosophical Investigations* (Harvard University Press 1981) 201.
[142] Marietta Auer, 'Promising, Owning, Enacting: Adolf Reinach's Phenomenology of Legal Speech Acts' (Chapter 1, this volume).
[143] JL Austin, *How to Do Things with Words* (JO Urmson and Marina Sibsà, eds Harvard University Press 1975) 164.
[144] Bill Watson, 'The Decline of Natural Law and the Rise of Exclusive Positivism' (2022) 75 SMU Law Review Forum 174.

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interact with a social concept they are analyzing – we might be better off without it at all, and still learn something useful from the project. But in theorizing about the foundations of logic and mathematics, Frege and Husserl are hoping to tell us how we *ought to think* – in formal logic and, well, *everywhere*.

It is, after all, implicit in their project that we ought to be persuaded by *their* logic; on the presumption that we ought to think logically. As Husserl puts it, '[t]his being bound is not meant psychologically in the sense of a thought-compulsion, but in the ideal sense of a norm: whoever judges differently, judges quite wrongly.'[145] Without some theory of how we ought to think – what *counts as thinking*, what we ought to recognize as thinking and accord appropriate respect – we *do* confront radical skepticism or solipsism. Frege and Husserl are, in other words, deriving *normative* claims about how we *ought* to think from their descriptive claims about the ontological foundations of logic and mathematics.

For deriving oughts about thought, we need (1), not (1a). If we stipulate (1), we take it that there is a genuine logical structure of truth in the universe. For this fact to ground an ought, all we now need is perhaps the most unobjectionable epistemic norm of all time – (n) *we ought to think truly*. That is, we ought to think according to what is actually true; we do something normatively objectionable when we think incorrectly. If we accept (n), and (1) is true, we get an ought about logic. We can follow, and be persuaded by, Husserl and Frege's emergent analysis of logical and mathematical concepts. Indeed, we can hear each other out in all contexts, without worrying about that defiant rejoinder of the radical skeptic – 'That all sounds right. But even if it is, why should I care?' *That* is what Frege and Husserl stipulate (1) (and (n), more implicitly) against.

(1a) simply does not have the same normative force. You might wonder why this is. After all, even with (1), we face the tried-and-true difficulty of deriving an ought from an is.[146] Indeed, we had to stipulate that we ought to think truly. Why couldn't we rather stipulate (n_a) – we ought to think according to our evolved cognitive proclivities – rather than (n)?

All I can say here is that (n_a) is plainly false, and (n) plainly true. If we have evolved to think a certain way, but doing so is incorrect, and does not track reality, and is wrong, we *ought not think that way*. I take this to be uncontroversial, at least outside of the kind of nihilist circles that so agitate Husserl and Frege. As Husserl puts it, '[t]he constitution of a species is a fact: from a fact it is only possible to derive other facts.'[147] Today's evolutionary psychologists, famously, agree.[148] (n_a) is precisely the species relativism of Husserl's worries; adjacent to perhaps even more nihilistic (n_b) – we *ought* to think however we *do* (individually; Frege's solipsism). Either of

[145] Husserl (n 60) 93.
[146] David Hume, A *Treatise of Human Nature* (John Noon 1739) 335.
[147] ibid 80.
[148] See n 48.

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these is a straightforward rejection of the possibility of meaning, of standing to demand that some other's thinking track the same reality as mine. Husserl and Frege are *right*, then, on their own terms, about the domain in which they are writing. In logic, at least, and probably math, if we are to have a theory about how we ought to think and speak, we must accept (1) (or something like it)[149] over (1a).

But what does this all have to do with *jurisprudence*? Maybe nothing, and that's the point. Reinach's own peculiar, descriptive approach to thinking about legal concepts lets us avoid this whole mess. Because Reinach, *unlike Husserl*, does *not* ground normative claims in the existence of the legal concepts he is analyzing.[150] In other words, where Husserl makes claims about how we ought to think, grounded in claims about, metaphysically, how things are, Reinach makes claims about how things, metaphysically, are (there exist these basic legal concepts) but *does not* draw from this claims about how the positive law ought to be. The positive law, he insists, *unlike Husserlian logical thinking*, is normatively free to vary from the *a priori*, and sometimes ought to.[151] Reinach *sets aside* questions about what we ought to do with the concepts he describes.

So insofar as all Reinach is doing, ultimately, is describing his concepts, he loses Husserl's reasons for insisting on (1) over (1a). As already emphasized, (1) and (1a) are similar for many purposes. If one's project is merely to *describe* specified concepts, they might be identical. But they differ in normative force. (n) is banal. (1) plus (n) is a straightforward foundation for epistemic normativity; maybe necessary for normativity writ large. (n_a), by contrast, is facially preposterous, and (1a) plus (n_a) flirts with nihilism. In other words (1) and (1a) might be quite similar, but *n and* n_a *are not*. If Husserl wants to write about how we *ought* to think and speak and communicate with one another, *he* needs (1). But Reinach's project is different on its own terms. By setting aside the normative implications of the legal concepts he analyzes, Reinach doesn't need (n) over (n_a). He doesn't need any kind of n at all. And if he doesn't need (n_a) over (n), he doesn't need (1a) over (1), either.

In short, it is true that the ontological status of concepts might matter normatively. Frege and Husserl recognize this, and to the extent they want to derive claims about how we ought to think in math or logic, their concepts might have to exist ontologically rather than psychologically. But Reinach is different. His analysis is descriptive, not normative. It illuminates the positive law, rather than tells us how it ought to be. And for *that* project, (1) and (1a) are more closely equivalent. If evolutionary psychology (or any other theory), offers an alternative, relevantly equivalent mode of existence for legal concepts – namely, holds them to exist in a descriptive way that has no necessary connection to either morality or the positive

[149] See Section 2.5. Concluding that we ought to think according to the certain mathematical entities does not *demand* Platonism about them, but it does demand that they bear some sort of genuine, nonarbitrary relationship to ontology.

[150] See Section 2.2.

[151] ibid.

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law, accessible to human intuition, as both metaphysics and evolutionary psychology do – it seems that Reinach has no real grounds to reject it.

2.7 CONCLUSION

In insisting that the basic concepts of private law exist outside of their legal construction, but that this fact has no conceptual implications for moral obligations or positive law, Adolf Reinach may be a nearly unique figure in the history of legal philosophy. Perhaps closest to his perspective are those contemporary theorists who have applied evolutionary psychology to a theory of legal concepts – and who agree that basic concepts really do exist in some sense outside of legal construction, but that positive law is free to deviate from them, and often ought to. On its face, it is something of a puzzle, then, that Reinach makes so clear that he is not one of them – prepared to stake everything on his claims being ontological, not psychological.

As a matter of Reinach's personal intellectual history, this commitment makes perfect sense – he saw it as one exemplary application of perhaps the most important philosophical position of his life, a commitment to a thick, epistemically accessible fundamental ontology, shared and hashed out by the leading figures of pre-War German philosophy.

But the *Psychologismus-Streit* ended with the outbreak of actual war in 1914. And post-War philosophers have largely found the stakes of whether the laws and concepts of logic and mathematics are metaphysically real or 'laws of thought' lower than did Frege, early Husserl, and Reinach. I've argued that this is particularly so in jurisprudence. Indeed, the difference between evolutionary theories of legal concepts and metaphysical ones is smaller than Reinach appears to have assumed, and Husserl's and Frege's arguments are more convincing in their own domains than in Reinach's. In short, whatever Reinach himself would have to say (and as several contributions to this volume have argued on different grounds)[152] his insights remain relevant even for many of those who might struggle with his metaphysics.

BIBLIOGRAPHY

Anderson M and LW Simmons, 'Sexual Selection and Mate Choice' (2006) 21 Trends Ecology and Evolution 296

Auer M, 'Promising, Owning, Enacting: Adolf Reinach's Phenomenology of Legal Speech Acts' (Chapter 1, this volume)

Austin JL, *How to Do Things with Words* (JO Urmson and Marina Sibsà, eds Harvard University Press 1975)

[152] Auer (Chapter 1, this volume); Andrew S Gold and Henry E Smith, 'Legal Concepts as a Deep Structure of the Law: Reinach's A Priori in Action' (Chapter 5, this volume).

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Baker GP and PMS Hacker, 'Frege's Anti-psychologism' in MA Notturno (ed), *Perspectives on Psychologism* (Brill 1989) 74

Baltzer-Jaray K, 'Bogged Down in Ontologism and Realism' in RKB Parker (ed), *The Idealism-Realism Debate among Edmund Husserl's Early Followers and Critics* (Springer Cham 2021) 151

'Phenomenological Jurisprudence: A Reinterpretation of Adolf Reinach's Jarhrbuch Essay' in JA Simmons and JE Hackett (eds), *Phenomenology for the Twenty-First Century* (Palgrave Macmillan 2016) 118

Barton NH, 'The "New Synthesis"' (2022) 119 Proceedings of the National Academy of Sciences e2122147119

Beccacece L, P Abondio, E Cilli, D Restani, and D Luiselli, 'Human Genomics and the Biocultural Origin of Music' (2021) 22 International J Molecular Sciences 5397, 5398

Boyer P, 'How Natural Selection Shapes Conceptual Structure: Human Intuitions and Concepts of Ownership' in E Margolis and S Laurence (eds), *The Conceptual Mind: New Directions in the Study of Concepts* (MIT 2015) 185

Buss DM, *Evolutionary Psychology* (5th edn, Pearson 2011)

Čapek M, 'Ernst Mach's Biological Theory of Knowledge' (1968) 18 Synthese 171

Chomsky N, *Aspects of the Theory of Syntax* (MIT 1965)

Chow DCK, 'Trashing Nihilism' (1990) 65 Tulane Law Review 221

Cohen FS, 'Transcendental Nonsense and the Functional Approach' (1935) 35 Columbia L Rev 809

Coleman JL, 'The Architecture of Jurisprudence' (2011) 121 Yale LJ 5

Corben HC and P Stehle, *Classical Mechanics* (2nd edn, Dover 1994)

Cosmides L and J Tooby, 'Evolutionary Psychology and the Generation of Culture, Part II: Case Study: A Computational Theory of Social Exchange' (1989) 10 Ethology and Sociobiology 51

Crosby JF, 'A Brief Biography of Adolf Reinach' in JF Crosby (ed), *The Apriori Foundations of the Civil Law: Along with the Lecture 'Concerning Phenomenology'* (De Gruyter 2012) viii

Cunnane SC, LS Harbige and MA Crawford, 'The Importance of Energy and Nutrient Supply in Human Brain Evolution' (1993) 9 Nutrition and Health 219

Darwin C, *The Origin of Species* (First Signet 2003)

Dennett DC, *Darwin's Dangerous Idea: Evolution and the Meanings of Life* (Penguin 1996)

Consciousness Explained (Back Bay 1992)

Dworkin R, *Taking Rights Seriously* (Harvard University Press 1978)

Enoch D, 'The Epistemological Challenge to Metanormative Realism: How Best to Understand It, and How to Cope with It' (2010) 148 Philosophical Studies 413

Erdmann B, *Logik, Logische Elementarlehre* (Max Niemeyer 1892)

Finnis J, *Natural Law and Natural Rights* (2nd edn, Oxford University Press 2011)

Fitzpatrick WJ, 'Why There Is No Darwinian Dilemma for Ethical Realism' in M Bergmann and P Kain (eds), *Challenges to Moral and Religious Belief: Disagreement and Evolution* (Oxford University Press 2014) 237

Føllesdal D, *Husserl und Frege: Ein Beitrag zur Beleuchtung der Entstehung der phänomenologischen Philosophie* (H Aschehoug und Co 1958)

Frege G, 'The Foundations of Arithmetic', in M Beaney (ed and tr), *The Frege Reader* (Blackwell 1997)

'Grundgesetze der Arithmetik, Volume I' in M Beaney (ed and tr), *The Frege Reader* (Blackwell 1997) 194

'Book Review of Husserl 1891' (1894) 103 *Zeitschrift für Philosophie und philosophische Kritik* 313

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Freud S, *The Interpretation of Dreams* (Basic 2010)
Gannon G, 'A Critique of Evolutionary Psychology' (2010) 4 Psychology, Evolution and Gender 173
Gardner J, *From Personal Life to Private Law* (Oxford University Press 2018)
Geisler WS and RL Diehl, 'A Bayesian Approach to the Evolution of Perceptual and Cognitive Systems' (2003) 27 Cognitive Science 379
Gödel F, 'An Introduction to Moritz Geiger's Psychological Contribution on Empathy' (2015) 8 Dialogues Philosophy, Mental Neuro Sciences 161
Gold AS and HE Smith, 'Legal Concepts as a Deep Structure of Law: Reinach's A Priori in Action' (Chapter 5, this volume)
Gould SJ and RC Lewontin, 'The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme' (1979) 205 Proceedings of the Royal Society Biology 581
Griffiths DJ and DF Schroeter, *Introduction to Quantum Mechanics* (3rd edn, Cambridge University Press 2018)
Haack S, 'The Pragmatist Tradition: Lessons for Legal Theorists' (2018) 95 Washington U L Rev 1049
Hanna R, 'Husserl's Prolegomena and the Truth in Psychologism' (1993) 53 Philosophy Phenomenological Res 251
Hardin CL, 'A Spectral Reflectance Doth Not a Color Make' (2003) 100 J Philosophy 191
Haruki M, 'On a Trade-Off in the Evolution of Ownership' (2018) 38 Economics Bulletin 1257
Heidegger M, *An Introduction to Metaphysics* 6–7 (R Manheim tr, Yale University Press 1959)
Hershovitz S, 'The End of Jurisprudence' (2015) 124 Yale LJ 1160
Hofman MA, 'Evolution of the Human Brain: When Bigger Is Better' (2014) 8 Frontiers Neuroscience 1
Hume D, *A Treatise of Human Nature* (John Noon 1739)
Husserl E, *Logical Investigations, Vol. I* (JN Findlay tr, Routledge 2001)
Jacquette D, *Philosophy, Psychology, and Psychologism: Critical and Historical Readings on the Psychological Turn in Philosophy* (Springer 2006)
James W, *Principles of Psychology* (originally published 1890, Harvard University Press 1981)
Essays in Radical Empiricism (Harvard University Press 1912)
Jones OD and R Kurzban, 'Intuitions of Punishment' (2010) 77 U Chicago L Rev 1633
Jones OD and TH Goldsmith, 'Law and Behavioral Biology' (2005) 105 Columbia L Rev 405
Kubricht JR, KJ Holyoak, and H Lu, 'Intuitive Physics: Current Research and Controversies' (2017) 21 Trends Cognitive Sciences 749
Kusch M, 'Psychologism' in EN Zalta (ed), *The Stanford Encyclopedia of Philosophy* (online 2020)
Psychologism: A Case Study in the Sociology of Philosophical Knowledge (Routledge 1995)
Ladyman J, 'The Foundations of Structuralism and the Metaphysics of Relations' in A Marmodoro and D Yates (eds), *The Metaphysics of Relations* 177, 179–180 (Oxford University Press 2015)
Lehar S, 'Gestalt Isomorphism and the Primacy of Subjective Conscious Experience: A Gestalt Bubble Model' (2003) 26 Behavioral Brain Sciences 375
Leigh Jr EG, 'The Group Selection Controversy' (2009) 23 J Evolutionary Biology 6
Levy N, 'Evolutionary Psychology, Human Universals, and the Standard Social Science Model' (2004) 19 Biology and Philosophy 459
Lopes JD, 'Phenomenology as Proto-Computationalism: Do the Prolegomena Indicate a Computational Reading of the Logical Investigations?' (2023) 39 Husserl Studies 47

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Lorenz K, 'Kant's Doctrine of the A Priori in the Light of Contemporary Biology' in M Ruse (ed), *Philosophy after Darwin* (Princeton University Press 2010) 231
Massey GJ, 'Some Reflections on Psychologism' in T Seebohm, D Føllesdal, and J Mohanty (eds), *Phenomenology and the Formal Sciences* (Springer 1991) 183
McCrae RR and PT Costa Jr., 'Personality Trait Structure as a Human Universal' (1997) 52 American Psychologist 509, 509
McGinn C, 'Mach & Husserl' (1972) 3 J British Society Phenomenology 146
McLeod I, *Legal Theory* (6th edn, Red Globe Press 2012)
Mill JS, *A System of Logic, Ratiocinative and Inductive* (first published in 1843; Cambridge University Press 2011)
Moore MS, 'Moral Reality Revisited' (1992) 90 Michigan L Rev 2424
'The Interpretive Turn in Modern Theory: A Turn for the Worse?' (1989) 40 Stanford L Rev 871
'Metaphysics, Epistemology, and Legal Theory' (1987) 60 Southern California L Rev 453
Mozzi A, D Forni, M Clerici, U Pozzoli, S Mascheretti, FR Guerini, S Riva, N Bresolin, R Cagliani, and M Sironi, 'The Evolutionary History of Genes Involved in Spoken and Written Language: Beyond FOXP2' (2016) 6 Scientific Rep 22157, 22157
Mukhopadhyay B, RM Shukla, M Mukhopadhyay, KC Mandal, P Haldar, and A Benare, 'Spectrum of Human Tails: A Report of Six Cases' (2012) 17 J Indian Association Pediatric Surgeons 23
Natorp, P, 'On the Question of Logical Method in Relation to Edmund Husserl's Prolegomena to Pure Logic' in JN Mohanty (ed), *Readings on Edmund Husserl's Logical Investigations* (Springer 1977)
Navarrete A, CP van Schaik and K Isler, 'Energetics and the Evolution of Human Brain Size' (2011) 480 Nature 91
Neumann JV and O Morgenstern, *Theory of Games and Economic Behavior* (Princeton University Press 1944)
Nichols S and T Grantham, 'Adaptive Complexity and Phenomenal Consciousness' (2000) 67 Philosophy Science 648
Norenzayan A and SJ Heine, 'Psychological Universals: What Are They and How Can We Know?' (2005) 131 Psychological Bulletin 763
Nozick R, *Philosophical Explanations* (Harvard University Press 1981)
Patrick CJ, 'The Long-Term Promise of Evolutionary Psychology for the Law' (2016) 48 Arizona State LJ 995
Pinker S, *The Blank Slate: The Modern Denial of Human Nature* (Penguin 2002)
How the Mind Works (Norton 1997)
Pinker S and P Bloom, 'Natural Language and Natural Selection' (1990) 13 Behavioral Brain Sciences 707
Pivcevic E, *Husserl and Phenomenology* (Routledge 1970)
Pizzolatto N, 'The Locked Room,' True Detective (HBO January 16, 2014)
Plotkin H, *Evolution in Mind: An Introduction to Evolutionary Psychology* (Harvard University Press 2000)
Pojman P, Ernst Mach's Biological Theory of Knowledge (Dissertation, Department of History and Philosophy of Science, Indiana University, June 15, 2000)
Posner R, *Economic Analysis of Law* (7th edn, Aspen 2007)
Prum RO, *The Evolution of Beauty: How Darwin's Forgotten Theory of Mate Choice Shapes the Animal World – And Us* (Doubleday 2017)
Putnam P, 'Realism and Reason' (1977) 50 *Proceedings of the American Philosophical Association* 483

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Pylyshyn ZW, *Computation and Cognition: Toward a Foundation for Cognitive Science* (MIT 1986)
Reinach A, 'Concerning Phenomenology' (D Willard tr) in JF Crosby (ed), *The Apriori Foundations of the Civil Law: Along with the Lecture 'Concerning Phenomenology'* (Ontos Verlag 2012) 145
'On the Concept of Causality in the Criminal Law' (B Brogaard, tr) (2009) 1 Libertarian Papers 1
'William James and Pragmatism' in B Smith (tr and ed), *Speech Act and Sachverhalt* (Springer 1987) 291
'The Apriori Foundations of the Civil Law' (John F Crosby tr, 1983) 3 Aletheia 1–142, reprinted in Adolf Reinach, *The Apriori Foundations of the Civil Law: Along with the Lecture 'Concerning Phenomenology'* (John F Crosby ed, Ontos Verlag 2012), originally published as Adolf Reinach, Die apriorischen Grundlagen des bürgerlichen Rechtes, 1 (2) *Jahrbuch für Philosophie und phänomenologische Forschung* (Max Niemeyer 1913), 685–847
Ridley M, *The Red Queen: Sex and the Evolution of Human Nature* (2nd edn, Harper 1993)
Rose S and H Rose, *Alas Poor Darwin: Arguments against Evolutionary Psychology* (Crown 2001)
Ruse M, *Taking Darwin Seriously: A Naturalistic Approach to Philosophy* (2nd edn, Prometheus 1986)
Russell B, *Human Knowledge: Its Scope and Limits* (George Allen and Unwin 1948)
Schacter DL, DT Gilbert, and DM Wegner, *Psychology* (5th edn, Worth 2007)
Schaus S, 'A Simple Model of Torts and Moral Wrongs' (2022) 97 Notre Dame L Rev 1029
Schuhman K and B Smith, 'Adolf Reinach: An Intellectual Biography' in K Mulligan (ed), *Speech Act and Sachverhalt: Reinach and the Foundations of Realist Phenomenology* (Springer 1987)
Shafer-Landau R, 'The Possibility of Metaethics' (2010) 90 Boston U L Rev 479
Shapiro SJ, 'The Hart-Dworkin Debate: A Short Guide for the Perplexed' in A Ripstein (ed), *Ronald Dworkin* (Cambridge University Press 2007)
Sherlock JM, BP Zietsch, JM Tybur, and P Jern, 'The Quantitative Genetics of Disgust Sensitivity' (2016) 16 Emotion 43
Sherwood CC, CD Stimpson, MA Raghanti, DE Wildman, M Uddin, LI Grossman, M Goodman, JC Redmond, CJ Bonar, JM Erwin, and P Hof, 'Evolution of Increased Glia-Neuron Ratios in the Human Frontal Cortex' (2006) 103 Proceedings of the National Academy of Sciences 13606
Singer JW, 'The Player and the Cards: Nihilism and Legal Theory' (1984) 94 Yale LJ 1
Skarsaune KO, 'Darwin and Moral Realism: Survival of the Iffiest' (2011) 152 Philosophical Studies 229
Sliney DH, 'What Is Light? The Visible Spectrum and Beyond' (2016) 30 Eye 222
Sloman L, P Gilbert, and G Hasey, 'Evolved Mechanisms in Depression: The Role and Interaction of Attachment and Social Rank in Depression' (2003) 74 J Affective Disorders 107
Smith B, 'On the Austrianness of Austrian Economics' (1990) 4 Critical Review 212
Smith HE, 'On the Economy of Concepts in Property' (2012) 160 U Penn L Rev 2097
Street S, 'A Darwinian Dilemma for Realist Theories of Value' (2006) 127 Philosophical Studies 109
Toader ID, 'Talking Past Each Other: Mach and Husserl on Thought Economy' in F Stadler (ed), *Ernest Mach: Life, Work, Influence* (Springer Cham 2019) 213.

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Tooby J and L Cosmides, 'Conceptual Foundations of Evolutionary Psychology' in DM Buss (ed), *The Handbook of Evolutionary Psychology* (Wiley 2021) 5

Toomey J, 'Property's Boundaries' (2023) 109 Virginia L Rev 131

'Evolutionary Anamnesis' (2022) 37 Biology and Philosophy 55

Van de Vondervoort JW, P Meinz, and O Friedman, 'Children's Judgments about Ownership Rights and Body Rights: Evidence for a Common Basis' (2017) 155 J Experimental Child Psychology 1

Vargha-Khadem F, DG Gadian, A Copp, and M Mishkin, 'FOXP2 and the Neuroanatomy of Speech and Language' (2005) 6 Nature Rev Neuroscience 131

Watson B, 'The Decline of Natural Law and the Rise of Exclusive Positivism' (2022) 75 SMU Law Review Form 174

Watson JD and FH Crick, 'Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid' (1953) 171 Nature 737

Wilson BJ, *The Property Species: Mind, Yours, and the Human Mind* (Oxford University Press 2020)

Wilson DS, E Dietrich, and AB Clark, 'On the Inappropriate Use of the Naturalistic Fallacy in Evolutionary Psychology' (2003) 18 Biology & Philosophy 669

Wilson EO, *Sociobiology: The New Synthesis* (Harvard University Press 1975)

Wundt W, 'On Psychological Methods' (1883) 1 *Philosophische Studien* 1

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