ABSTRACTS

Peter Backes, *Popper’s Theory of World 3 and the Evolution of the Internet*
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While developing his theory of World 3, Popper rejects two claims made by Plato: first, that the inhabitants of World 3, ideas, are a source of ultimate explanation, a divine revelation of truth, and second, that these ideas are unchanging. I will rehabilitate the second claim. Man does not construct World 3 by creating his theories (as Popper claims), nor is it a source of ultimate truth (as Plato claims). Instead, World 3 is discovered by man and it destroys some of his theories: destructive Platonism. We discuss the impact of the modified position on the Grundlagenstreit in mathematics, taking into account Gillies’ constructive Aristotelianism. I then turn to the philosophy of computers and discuss how destructive Platonism relates to computers and the Internet. In particular, I criticize Popper’s claim that computers are nothing but elaborate pens as too pessimistic and incautious, and the fashionable singularity theory (von Neumann, Ulam, Vinge, Kurzwell, Hawking) as too optimistic and at the same time too fatalistic. In my closing remarks, as an antidote against both views, I provide a more modest and reasonable (though of course very wild) speculation about the ultimate goal and meaning of life.

Peter Backes is a PhD student in computer science at Saarland University, with some support from the DFG’s Transregional Collaborative Research Center “Automatic Verification and Analysis of Complex Systems” (SFB/TR 14 AVACS). He is currently finishing his thesis on abstract graph transformation at the chair for programming languages and compiler construction led by his supervisor Reinhard Wilhelm. Previously, he was working as a research and teaching assistant. Before that, he obtained his computer science diploma, with programming languages as the principal topic. He enjoys writing computer programs as part of his research, such as hiralyse and ASTRA, tools complementing the theories of his Diploma and PhD theses, to enable experimental evaluation. He has also contributed to the implementation of CAMA, the first real-time memory allocator with predictable cache behavior. His first encounters with philosophy were as a freshman, when he chose computational linguistics as his minor subject, a program offered by the philosophical faculty II (philosophy of language, literature and culture) at Saarland University. Before graduation, and challenged by the epistemological arguments of his former neighbor, an evangelical Christian and convinced creationist, he wanted to take a lecture in general philosophy, but ended up reading Popper’s works instead.

Brian Boyd, *Popper’s World 3: Origins, Progress, and Import*
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Popper called his “three worlds” hypothesis the “philosophy of my old age.” Yet he had foreshadowed it many years before, by at least the early 1940s, but felt it “too absurd and abstruse” to publish. What led him to introduce it to his classes in 1960, what held him back from publishing it until 1967, what gave him the confidence then to return to it again and again? And how, especially, should we evaluate it in Popper’s life and thought? Bartley argued that Popper’s late work, his “three worlds” and his evolutionary biology and epistemology, “generalised and unified his philosophy.” I would go further. Popper’s discovering how to make World 3 more than “hot air” provided a keystone for his thought. It linked and deepened many key ideas: objective knowledge, and the epistemological centrality of the growth of knowledge; a world of discussable, criticizable theories and values offering a way beyond violent competition; emergence, and the self-transcendence of life, in which active organisms, active human minds foremost, play the leading creative role by problem-solving; an open, indeterminate world that allows freedom and the *growth* of freedom; a realism that accepts the primacy but not the ultimacy of the physical.
Brian Boyd is University Distinguished Professor in English, Drama, and Writing Studies at the University of Auckland. Best known as biographer, critic and editor of Russian-American writer Vladimir Nabokov (*Vladimir Nabokov: The Russian Years, Vladimir Nabokov: The American Years*, Princeton, 1990 and 1991), he has also been a leader of the movement to bring evolution and cognition to bear on literature and art (*On the Origin of Stories: Evolution, Cognition and Fiction*, 2009, and *Why Lyrics Last*, Harvard, 2009 and 2012). He has written on literature, from Homer and Shakespeare to the present, on American, Brazilian, English, Greek, Irish, New Zealand and Russian fiction, drama, poetry, non-fiction prose, comics, and translation, and on literary theory and relationships between the arts and sciences. Some of his nineteen books and more than 250 articles have been translated into 17 languages and have won awards in America, Asia, Australasia and Europe. Long interested in what the arts, the humanities and the sciences can learn from each other, he has researched in sixteen countries for a biography of Karl Popper he is writing for Harvard University Press.

Hubert Cambier, *The Evolutionist Meaning of World 3*
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Karl Popper’s World 3 theory emerged in 1967-68. It embodies the metaphysics that he laid out as a foundation for his previous writings, in the philosophy of science, politics and ethics. To understand fully the meaning of this theory, we need to examine how it relates to the works and the thought of three predecessors: Gotlob Frege, Karl Bühler and Samuel Butler. After summarizing the contributions of these authors to logic, the philosophy of language and evolutionism, the paper focuses on the way Popper reads them, and on the ontological turn he imposes on the works of Frege and Bühler. Not only will this clarify the function of the metaphysics Popper designed in this mature age but it will also contribute to identify quite a few problems that still require elaboration, such as the status of World 3 theories, propositions, problems and culture; the relations between these inhabitants of World 3; the relation between Worlds 3 and 2 (or between the objectivity of thoughts and the subjectivity of the individuals); and the risks related to the growing autonomy of World 3.

Hubert Cambier studied philosophy at the University of Paris X – Nanterre and devoted his PhD dissertation to the study of the philosophy of Karl Popper (2001). The thesis has since been published by the Editions Universitaires Européennes, Saarbrücken in two volumes “La philosophie de Karl R.Popper. 1. La théorie de la connaissance; 2. Philosophie pratique et métaphysique » (2012). He has presented papers during the Congress “Karl Popper: 2002,” organised in Vienna, Austria and during the Conference “Philosophy, Problems, Aims, Responsibilities” organised by the University of Warwick, UK, (2004). His current researches focus on a pragmatic approach in the philosophy of language. In parallel, he pursued a professional career within the international trade union movement, working in particular with the trade unions organisations of Central and Eastern Europe to help them to reconstruct after the fall of the Berlin Wall and the end of the USSR.

Francesco Di Iorio, *World 3 and Methodological Individualism in Popper’s Thought*
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Popper’s World 3 thesis posits that culture has an objective reality that can influence and change physical reality. Commentators like Udehn argue that this thesis is inconsistent with his defence of methodological individualism (MI). In this paper, I will show that this argument rests on two mistakes. First, it confuses MI with reductionism, but the two are not the same. Drawing upon Hayek and Menger, Popper espoused a non-reductionist variant of MI that takes into account the causal power of socio-cultural factors. Second, it misunderstands how Popper conceives the objectivity of culture, which is central to his theory of three worlds. “Culture” for Popper does not mean a holistic entity that controls human minds from without; it is a concept consistent with MI and its defense of human autonomy. The world of culture (World 3) does not affect the physical world (World 1) in a mechanical way, by determining the actions of the individuals and
canceling their intentionality. Rather, it must be interpreted by individuals and it only affects the physical world by means of their evaluations and choices (World 2).

Francesco Di Iorio is a postdoctoral research fellow at GEMASS, Sorbonne-Paris 4 University (FMSH Fernand Braudel fellowship) and a part-time lecturer at both ESCP Europe Paris (France) and LUISS University, Rome (Italy). His research interests focus on philosophy of social science, particularly methodological individualism, hermeneutics, critical rationalism, ordinary rationality, complex systems and enactivism. Francesco Di Iorio earned his PhD in Philosophy from EHESS and CREA - École Polytechnique (France) in 2012. Before his work at Sorbonne-Paris 4 University, he held a postdoctoral position at Duke University – HOPE Center (USA). He is the author of Cognitive Autonomy and Methodological Individualism. The Interpretative Foundations of Social Life (Springer, forthcoming). This book uses Hayek’s reflections on mind as a starting point to investigate the concept of action from the standpoint of non-atomistic methodological individualism, and it explores the connections between Hayek’s cognitive psychology and approaches employed in various fields, such as phenomenology, hermeneutics, neo-Weberian sociology and enaction.

Nir Fresco, Popper’s Falsification Theory and the “Objectivity” of Information
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Popper proposed falsifiability as the criterion that demarcates scientific from non-scientific theories. In addition, he claimed that the more falsifiable a scientific theory is, i.e., the more it “forbids,” the richer its empirical content is and the more information it conveys. He proposed the idea that the empirical content of a theory is equal to the (logical) improbability of its being true. This idea is similar, or identical, to the Inverse Relationship Principle (IRP) in the theory of information: the less probable a message is, the more informative (or rather informational) it is. Popper never pursued the parallel between his theory of empirical content and IRP. Had he done so, it seems likely that, in the light of his theory of objective knowledge, he would have had to tackle the question in what sense semantic (rather than scientific) information is “objective.” According to some views, information is mind-independent (e.g., Frege, Popper, Floridi and Adams): the information we pick up from the world exists independently of any receiver(s). This view faces several problems, such as whether or not a message carries information for a receiver regardless of her prior informational state. The view that information is mind-dependent also faces problems, one of which is whether or not a library ceases to carry information if the human race ceases to exist. This paper discusses these problems critically.

Nir is a postdoctoral fellow at the Sidney M. Edelstein Centre for the History and Philosophy of Science, Technology and Medicine at the Hebrew University of Jerusalem. The main aim of his research is to better understand — from informational and computational perspectives — how information processing contributes to human cognitive life. In 2013 he obtained a PhD in Philosophy from the University of New South Wales in Sydney, Australia. His doctoral research was an attempt to give an adequate account of digital computation that does justice to both computer science and cognitive science. Nir’s recent research has focused on understanding what information is in the context of understanding human cognition. There is broad agreement that, in a sense, cognition involves the processing of information, and, indeed, many theories of cognition explain cognitive phenomena information-theoretically. However, there is an embarrassment of riches of theories of information. The objective of this research is to develop a new conceptual framework that allows us to move from an adequate theory of information to a theory of human cognition. Another project Nir is engaged in aims to analyse – using information ethics – the ethical challenges arising from new emerging technologies.

Volker Gadenne, Is there a Third World?
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Whereas Popper's epistemological views, for example on fallibilism and the critical method, have convinced many scientists, his theory of the three worlds has been less generally accepted, even by critical rationalists. Which arguments exist that are in favor of an autonomous world of objects which are neither physical nor mental? Popper's first argument (that the destruction of libraries would severely throw back civilization) demonstrates the importance of books for civilization and culture but does not show that books are third-world objects. His second argument seems to be stronger: once we have created objects such as numbers, propositions, or theories, we can discover properties of them and relations between them, which seems to presuppose that these objects exist in an objective way. Still, this does not prove that these objects are not physical or mental. Signs can be conceived of as physical objects, and propositional contents may be interpreted as properties of mental states. Furthermore, it has been objected that an autonomous third world which contains contradicting theories necessarily contains any proposition. I will discuss the arguments mentioned and raise the question whether the theory of three worlds does not raise more problems than it solves.

Volker Gadenne is Professor of Philosophy and Theory of Science at the Johannes Kepler University of Linz. His research focuses on epistemological and methodological questions, the mind-body problem, and consciousness. His publications include “Wirklichkeit, Bewusstsein und Erkenntnis” and “Philosophie der Psychologie.”

Wolfgang Kerber, A Remarkable Triangle: Popper, Lube, Schrödinger
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The main purpose of my contribution to the symposium “The Written Word” is to honor Manfred Lube: as a librarian, sportsman, husband, father and “friend in need ....”. Furthermore I want to explain the title of my talk and show a correlation with Schrödinger and Popper using letters from Popper to Schrödinger. Both are well known to everybody. We know quite well what they did and how they caused mankind to propagate this knowledge. What is less known is how we obtained all these facts. This is due to only a few people, whose roles in the scientific process are not widely recognized. In the case of Popper one such person is Lube. He and his staff prepared the important documents by filing them. Now they have been saved and are ready to serve everybody.

Wolfgang Kerber studied mathematics and physics at the University of Vienna. He has been director of the Department of Nuclear Magnetic Resonance of the Institute for Inorganic Chemistry at the Technical University of Vienna and director of the Central Library of Physics and Chemistry in Vienna.

Heidi König-Porstner, The Knowledge Society
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The first UNESCO World Report “Towards Knowledge Societies” stresses education as the cornerstone of human security and knowledge societies. In societies of the written word, a lack of literacy - and e-literacy - has become an increasing source of insecurity, of which the developing countries are cruelly aware. Whereas the rational use of the new technologies, and the enhancement of the corresponding skills in less favored countries, offers real possibilities for human development and the building of more democratic societies, dangers lie not only in the unsolved question of which kind of “knowledge” is to be shared between societies, but also in the corresponding use of the new technologies. In “The Myth of the Framework,” Popper emphasizes the dangers of a society manipulated by technologists and mass communication. “Most ... would agree that the dangers inherent in these technologies are comparable to those of totalitarianism. Yet ... few of us regard it as our business to think of means to combat the dangers of mass-manipulation. And yet, there is no doubt in my mind that much should and could be done in this direction, without censorship or any similar restriction of freedom.”
Heidi König-Porstner, born in 1965, has been a researcher at the Institute for Philosophy of Science, University of Vienna, and the Institute Vienna Circle. She is co-editor of Vol. 5 of the Moritz Schlick Edition, and has cooperated in projects on the philosophy of the Vienna Circle. Her research focuses on literature and science, science in translation, science education and learning theories. In the past years, she has been working for education in Ethiopia.

Manfred Lube, Karl Popper, World 3, and the Arts
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This amateurish presentation contains some considerations which occur to me when I relate one of my personal inclinations, the arts, to ideas that Popper has expressed on this topic on various occasions. I apply three main philosophical ideas that Popper has developed in his speculations about music to painting: the distinction between dogmatic and critical thinking; the distinctions between the subjective and the objective; and the intellectual poverty and destructive power of historicist ideas. I then show that in the light of the autonomy of works of art, their sovereignty and a specific logic of pictures, fine art is just as part of World 3 as music, the art form favoured by Popper. Starting from questions like “what does art tell us?” – “how does art speak to us?” – “is art able to communicate with us, if it is able to communicate anything at all?” the concept of World 3 is used to demonstrate that art in general, not only music, and fine art in particular, can lead to obtaining knowledge about our world.


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Contemporary schools of architecture and design deny that they impart a stylistic idiom: today’s abstract aesthetic is a by-product of non-aesthetic solutions, not a result of conscious, rational choices. It is the only authentic (because historically necessary) expression for the epoch. This self-understanding, based on the modernist design philosophy of the 1920s, explains why hardly any member of architecture and design schools since the 1950s has responded to the demand for instructions in a different stylistic idiom. I show that this modernist philosophy of design is historicist. It has locked generations of architects and designers inside a monist way of thinking that made them blind to the fact that their idiom is as convention-based as all others. I argue that pre-19th-century traditionalist architectural positions were non-historicist. Most practitioners seemed to understand what Popper later called World 3, considering earlier styles as a permanent pool of aesthetic solutions and inventions. Modernists, however, condemned pre-modernist styles as outdated, just like Marxists rejected pre-Marxist philosophies as sterile products of the past historical epochs. Many contemporary historians of design and architecture still think like this. I explore how Popper’s World-3 based anti-historicism can contribute to a better understanding of modernism in architecture and design.

Jan Michl (1946) is professor emeritus of design history and theory at The Oslo School of Architecture (AHO), and adjunct professor at the Faculty of computer science and media technology at the Gjøvik University College (HiG), both in Norway. He was educated in former Czechoslovakia, and in Sweden. Over fifty of his articles, mainly in English, Norwegian and Czech, are accessible online at his website.
In his conception of three worlds Popper was driven by the ambition to break away from what he called the subjectivist epistemology and to introduce a theory of objective knowledge, characterized by the autonomy and independence of the third world. He offers a grand-sounding ontology that can be compared to Plato or Frege. In this presentation I shall argue that Popper failed to provide either an original ontology or an epistemology without a knowing subject. Moreover, in his effort to desubjectivize knowledge he downgraded the vital importance of the critical (subjective) activity that ensures the dynamism of the growth of knowledge – thus, he also downgraded the most interesting feature of his philosophical contribution.

Zuzana Parusniková studied at the Charles University in Prague and later completed her doctoral studies at the Institute of Philosophy at the (then) Czechoslovak Academy of Sciences. There, her research focused on early modern philosophy from Descartes to Hegel, and on the philosophy of Popper. She then worked in London (Lakatos Fellowship) and Cambridge (Department of History and Philosophy of Science). She held a teaching position at the University of Cape Town (South Africa). After returning to the Czech Republic she became a senior researcher at the Institute of Philosophy. Her publications cover a wide range of topics in the philosophy of science, including the philosophy of medicine (e.g. the Foucauldian analysis of the current health cult and its link to the regimes of power) and various aspects of critical rationalism and evolutionary epistemology. She is the author of a monograph about Popper (in Czech), a co-author of Knowledge, Value, Evolution (College Publications 2011) and a contributor to and the co-editor (with R.S. Cohen) of Rethinking Popper (Springer 2009). In recent years, her research concentrated on David Hume and his place within the early modern philosophy, and on the link between the modern epistemological discourse and the ancient skepticism.

Jeremy Shearmur, Popper, Objectification and the Problem of the Public Sphere
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Popper stressed the objectification of our knowledge, in order that it should become open to criticism. This is of the greatest importance, because of his emphasis on our fallibility and on the role of inter-subjective critical assessment. I argue, however, that it is here not enough to appreciate that claims to knowledge should, in principle, be open to such assessment. Rather, one needs to move into issues – which Popper himself tended to avoid – of the normative sociology of knowledge, and the interplay between knowledge in a “World 3” sense, and our social institutions and practices (but which was prefigured by Popper’s work on “methodological rules”). This leads us to the problem of how our institutions might be improved, in order to better enable such criticism to take place. Popper was himself critical of over-specialization in the production of knowledge. I suggest that the problem calls for more specific diagnosis (including appreciation of the role that institutions and practices may play as methodological rules and – on the theme of the conference – appreciation of the work which has developed from Darnton’s study of the history of books, and Young’s work on Nineteenth Century journals). This in turn can lead to proposals for institutional reform, informed by ideas from Popper’s epistemology.

Jeremy Shearmur was educated at the London School of Economics, where he also worked for eight years as Assistant to Karl Popper. He taught philosophy at Edinburgh, political theory at Manchester, and was Director of Studies at the Centre for Policy Studies in London. He was then Research Associate Professor at the Institute for Humane Studies, George Mason University, before moving to the Australian National University where he taught political theory and then philosophy. He has been Emeritus Fellow in the School of Philosophy there, since the beginning of 2014. He has published about a hundred papers or book chapters, mostly in philosophy, political theory and the history of ideas. His Hayek and After and The Political Thought of Karl Popper, and his and Piers Turner’s edition of Popper’s After the Open Society were published by Routledge. He is currently at work on several
editorial projects, including, with Geoffrey Stokes, The Cambridge Companion to Popper, and on Law, Legislation and Liberty for Hayek’s Collected Works.

During 2014 he worked in archives in London and in North America, and papers drawing on this – and further planned work in archives – will be published in the next few years.

Harald Stelzer, The Framing of Future Techniques
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Popper’s World 3 contains the products of thought. Just like stories, “framings” in the sense of forms of interpretations of certain topics can also be seen as inhabitants of World 3. In my paper I refer to framings as products of thoughts embedded in a debate. Such framings help people to make sense of different events and phenomena and to respond to them. Framings therefore support people in integrating new developments into their perception of the world. They also signal to others how best to understand and interpret these phenomena and events. Once they have been brought into existence, framings, just like ideas, can lead to conclusions based on their underlying premises and their inherent logic, which may have not been foreseen by those who developed and used them in the first place. Framings can, so to say, develop a life of their own. But if this is true, who bears the responsibility for the framings and their conclusions, especially if they develop to have real world consequences? The “autonomy” of ideas and framings raise questions for the way we engage in debates. I will look at these questions in the context of the framing of climate engineering.

Harald Stelzer is professor of political philosophy at the University of Graz. He has worked on the social and political philosophy of Karl Popper and critical rationalism as well as on the development of an outline of a critical-rational ethics. In his latest book (to be published by Rodopi in the Series on Critical Rationalism) he has put forward a critique on the moral philosophy of communitarianism. In the years 2013 and 2014 he has worked at the Institute for Advanced Sustainability Studies in Potsdam (Germany) on the ethical and political implications of climate engineering.

Miloš Taliga, Why the Objectivist Interpretation of Falsification Matters
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At the start of my talk I shall distinguish between subjectivist and objectivist interpretations of scientific methods, including the method of falsification. By relating this difference to another well-known distinction, that between subjective and objective knowledge, I shall then argue why having good reasons is good for subjectivists but useless for objectivists. As a second step, I shall try to show that the growth of scientific knowledge makes sense only when knowledge is understood to be objective and the method of falsification is interpreted in the objectivist way. Moreover, this way of interpreting knowledge dissolves famous objections against falsification, namely the Duhem-Quine thesis and the problem of underdetermination. In the third step of my talk I shall state clearly how modus tollens, which – according to Popper – is “the falsifying mode of inference” (The Logic of Scientific Discovery, Taylor & Francis eLibrary edition, 2005: 55) helps scientists to find out that the tested theory is false, in spite of the fact that the result, i.e. the falsity of the theory, is included in its premises.

Miloš Taliga is an assistant professor in the Department of Philosophy of the Faculty of Arts at Matej Bel University in Banská Bystrica, Slovakia. He teaches mainly courses on epistemology, methodology and philosophy of science. His research interests include logic as an organon of criticism, the problem of induction and underdetermination, the problem of truth and the justifiability of knowledge, the problem of rationality of cognition, the distinctions between objective and subjective knowledge, the objectivist interpretation of scientific methods, the problem of progress in science, etc. In analysing these problems he utilizes the core insights of critical rationalism, which are generally believed to be of marginal value today. He compares them with mainstream views on scientific knowledge, and challenges the latter if arguments lead this way. The resulting positions are then proposed as attempts to constructively innovate traditional
Interest in Popper’s ideas in The Netherlands was awoken by the Dutch physicist H. A. Kramers in January 1936, when he called *Logik der Forschung* “an epoch-making work which will open the eyes of many to new insights.” One of these many Dutch admirers was to be Adriaan de Groot, who read (parts of) the book when he was still a student. His first scientific publication (1943) contains free translations of section 6 (“Falsifizierbarkeit als Abgrenzungskriterium”). Five years later, Dr. A. D. de Groot successfully applied Popper’s falsifiability criterium to the “interpretations” of human conduct by Adler, Freud and Jung. Subsequently, “Some preliminary remarks to a methodology of psychological interpretation: on “falsification” (1950) established De Groot’s position as the first Dutch follower of Popper. Nevertheless, in his later psychological publications references to Popper the philosopher are few and far between. Fortunately, his private archive gives more information about what he thought of the man whom he admired so much. For example, De Groot’s private documents contain an elaborate report of a meeting in November 1988. Moreover, the collection also includes some important letters, one in particular, in which he comments on *Unended Quest*.

The mathematician and philosopher Henk Visser (1939) has taught analytical philosophy and philosophy of science at the universities of Rotterdam, Tilburg and Maastricht. His publications comprise studies on Frege, Russell and Whitehead, the influence of Mach and Boltzmann on Wittgenstein, and essays on problem solving in mathematics and Artificial Intelligence. He is also an expert in music theory. His last publication in this field is “Mendelssohn’s Euclidean Treatise on Equal Temperament.” He was the second author of A. D. de Groot’s last book, *Het forumwaarmerk van wetenschap*. After his retirement from the University of Maastricht, Henk Visser is writing a biography of the late A. D. de Groot, based upon his publications, diary, unpublished work and private notes.