

Sense and Substance in Wittgenstein's *Tractatus*

Maija Aalto, Joensuu

In this article, I clarify the remarks 2.0211 and 2.0212 of Wittgenstein's *Tractatus*. They connect the sense (*Sinn*) of a proposition to what he calls the "substance of the world" in a rather baffling way. I argue that the remarks become quite intelligible if they are read as expressing Wittgenstein's rejection of Frege's theory of *Sinn* and *Bedeutung*. Frege allows the sense of a proposition to be independent of the *Bedeutungen* of its constituent parts, i.e. independent of the proposition's being connected (truly or falsely) to the world. Wittgenstein, on the contrary, does not separate the *Sinn* of a proposition from the *Bedeutungen* of its parts, that is, from the substance of the world. However, whether we regard Wittgenstein as being justified in rejecting Frege's theory depends on whether we accept his starting-point that all meaningful propositions are bipolar.

Facing up to Wittgenstein's Diaries of Cambridge and Skjolden: Notes on Self-knowledge and Belief

Norberto Abreu e Silva Neto, Brasília

The sentence *To see any problem from a religious point of view* was taken as a methodic procedure for investigating the notion of the self and related aspects. The procedure was made effective with the help of Foucault's *technologies of the self* concept. In this way, Wittgenstein's Diaries of Cambridge and of Skjolden, were read as illustrations of a technique of the self and his notes on the self and self-knowledge were taken as an example of seeing from a religious perspective what psychologists see from the scientific point of view. So, firstly, the procedure is described; after, the relations Wittgenstein made between self, perfection, and God are presented, followed by a section about his resistances to follow religious commandments. And finally, comments about this author's experience of putting his good face on these diaries are made.

Two Notions of Justification in Science

Matthias Adam, Bielefeld

The sciences as an epistemically self-conscious enterprise of knowledge gathering include assessments of claims as justified (viz. acceptable) in their very practice. In general epistemology, two notions of justification are often distinguished, a deontological and an alethic notion. It is argued that the scientific epistemic practice is confined to the deontological notion. Yet the notion is not internalist, since reasons that are communally accessible and also concern the reliability of the worldly generation of scientific findings are relevant. A number of further questions on the epistemic status of scientific knowledge claims should take their start from the alethic notion of justification.

Toward Saving Nozick from Kripke

Fred Adams, Newark
Murray Clarke, Montreal

Tracking theories of knowledge, though quite popular have been under attack from their inception. Specifically, we have in mind the attacks of Saul Kripke on the tracking theory of Robert Nozick. We don't think these attacks on tracking theories work. In this paper, we take a step towards rescuing Nozick's version of the tracking theories of knowledge from the attacks of Kripke.

The Error of Thinking that the Picture of Actual Dreams can be Used in only one Way

José María Ariso, Madrid

In order to avoid being captive of a certain picture we must explore how it is to be used: it will be then that we will understand the sense of what we are saying. Since the picture already points to a particular use, it seems to spare us this work, but Wittgenstein warns us “this is how it takes us in”. In this paper I try to illustrate this point with an example: the example in question is ‘the picture of actual dreams’, that is, the picture of the unquestionable report made by an authority (on the corresponding context) who recounts the whole dreams we have had while sleeping, including the ones we remember and the ones we have forgotten or even misremembered upon waking.

The Metaphysical Subject as Background to the Early Wittgenstein’s Epistemology

Brian Armstrong, University Park / PA

This essay shows how consideration of the Tractarian notion of the metaphysical subject can help us to make sense of Wittgenstein’s characterization of epistemology as the philosophy of psychology. I will proceed by looking at how the metaphysical subject relates to thought and at what it means to think of this subject as a limit of the world. The implications for epistemology are that it would have to correct any possible psychology that attempted to speak of such a subject and it would in large part be a matter of the investigation of language.

Learning to Speak

Lance Ashdown, Groningen

Rush Rhees’s *Wittgenstein and the Possibility of Discourse* constitutes both an extension and a critique of Wittgenstein’s later philosophy. The main theme of the book is the question that Rhees argues was central to Wittgenstein throughout his career: what it means to say something. In working through this problem, Rhees argues that the *Investigations* picture of acquiring language through training is misleading. His principal logical objection is that Wittgenstein construes learning to speak as learning to use expressions, whereas learning to use expressions seems to presuppose being able to speak. To my knowledge, Rhees’s discussion has received no serious attention in the literature on Wittgenstein; my goal is to bring together Rhees’s various remarks into a coherent critique in an effort to make clear its importance.

Religion, Science, and Philosophical Naturalism

Robert Audi, Lincoln

Many contemporary thinkers consider the scientific habit of mind to be at the very least in serious tension with any theistic religion, particularly one that represents God as the kind of sovereign creator portrayed—in different ways, to be sure—in Christianity, Judaism, and Islam. This paper explores some of the sorts of scientific commitments that can be reconciled with certain kinds of religious presuppositions. It begins with some points about the scientific habit of mind and proceeds to distinguish it from something closely associated with it, but quite different: philosophical naturalism. This, in turn, is distinguished from positivism. Philosophical naturalism is shown to vary across different domains, for instance in metaphysics, epistemology, philosophy of mind, and ethics. But in all of them, naturalists commonly endorse the epistemological sovereignty of science. One aspect of this endorsement is methodological, making scientific method central; another is substantive, making scientific evidence the primary or even only admissible kind. As Wilfrid Sellars declared, “science is the measure of all things, of what is that it is and of what is not that it is not.”

A major question for my inquiry is whether the idea of a non-embodied person is required by a plausible theistic world view and, if required, intelligible. The paper thus considers the possibility of God’s having a body. A related question—urgent quite

apart from whether a person must have a body—is how, if at all, mental causation is possible. This question is particularly difficult if we make the almost standard philosophical assumption, shared by many non-naturalists, that mental phenomena are consequential (supervenient, in one sense of that term) on physical phenomena.

These questions are not fully answered here, and in part because adequate answers are beyond the reach of a single paper. I consider a position that in a way sidesteps them: theological noncognitivism. This position, partly inspired by Wittgenstein's philosophy of language, is a theological analogue of ethical noncognitivism as a non-descriptivist, expressivist view consistent with a full-blooded naturalism. Although the paper does not endorse theological noncognitivism, it does point out the significant, if limited, range of religious phenomena for which theological noncognitivism can account.

The overall view set forth in the paper is that whatever the ultimate verdict on noncognitivism should be, there are theological and religious perspectives that are both cognitivist and fully compatible with the scientific habit of mind. To be sure, for most people who embrace both, there will be tensions. But a tension can be an occasion to enrich one's understanding of the apparently incompatible elements on both sides. A tension *need* not result in giving up one perspective or the other; it *should* not result in a fundamentalist dogmatic entrenchment on either side.

Von der Unaussprechbarkeit zur ontischen Reduktion

Sun Bok Bae, Seoul

In diesem Aufsatz versuche ich den wittgensteinschen 7. Satz in *TLP* im Vergleich zu dem cartesischen philosophischen Prinzip ‚cogito, ergo sum‘ zu analysieren. Es geht um den Gegenstand, den Frege mit Sinn und Bedeutung, oder zwei Namentheorie auseinandergesetzt hat. Ein ontisches Problem tritt dann auf, wenn A B nicht versteht und umgekehrt. Ein weiteres logisches Problem bezieht sich auf das unaussprechbare Objekt, dessen sprachliche Formulierung selbst einen Widerspruch enthält. Nach Bochenski wird die Bedeutung dieses Objektes mit zwei Prädikaten bezeichnet. Dann kommt die Bedeutung von A der Bedeutung von B gleich vor.

Der Autor zeigt, dass das Problem der Unaussprechbarkeit über den Gegenstand auf den Namenträger und ontische Reduktion der cartesischen *Egos* in ‚cogito‘ und ‚sum‘ zurückgeführt werden soll. Die wittgensteinsche Kritik an Frege wird gerechtfertigt, dass Frege Argumente mit Index verwechselt hätte. Dort kann man schweigen, aber muss nicht.

Justifications, Exculpations, Causes. Epistemology and our Image of Nature

Hilan Bensusan, Brasília

Our conception of nature makes a difference in the way we think about justification and its bearings on our epistemic practices. In this paper I look at how a sense of confinement that is associated to some forms of coherentism is provoked by a conception of nature. I examine how best to free ourselves from this confinement.

Rule-Following Made Easy

Sven Bernecker, London

I wish to argue that the problem of rule-following rests on semantic internalism and that semantic externalism makes the problem evaporate. Given that the rule-following problem is a version of the general problem that the reference of an intentional phenomenon is underdetermined by its meaning, semantic externalism solves the problem by reducing meaning to reference. Since both Kripke and Wittgenstein are proponents of semantic externalism, the problem of rule-following is not a problem for either Kripke or Wittgenstein, but only for Wittgenstein's internalist interlocutor.

The Role of Social and Cultural Environment in the Determination of Faith in Islamic Theology

Ramazan Biçer, Sakarya / Turkey

Every man lives under the stimulation and bombardment of information come from various ways. However, the structure of human intellect has not capacity to perceive this information. Consequently, information in external world can be perceived partially by human intellect. What can be perceived is related to perceived subject and the level of knowledge that can perceive. In other words, the subject matter of how we perceive the world is on the one hand limited to the our senses, on the other hand it is the result of the function of our memory, imagination, and fancies etc. These are called functional and personal effects, which derives from the special features of every person. It is also worth noting that the needs, mental set and spiritual mood play an important role in the selectivity of intellect (mental capacity). What can we see is related to how can we look and who can look.

These textual evidences describe the psychological atmosphere of the believer and unbeliever. Every Muslim considers very logical and rational what he has done in cultural and social environment. Thus the reason takes place in faith (iman) is not an objective but it supports the faith and also serves it with its subjective characteristics. Although for the outsiders this belief looks irrational but for the believer it is very meaningful and extremely rational.

Everybody accepts the religion, which is thought. He goes further and says that believes of people are like a geographical map which shows that wherever one was born, he accepts the religion of this environment. Therefore, he reminds us that If the good Catholic believers in Rome had been born in Mecca, they would have been very good Muslims. Similarly, if many good Turks had been among us, they would have been very good Christians. Consequently, the environment and external world are very important in the formation of belief.

Infinite Regresses, Infinite Beliefs

Oliver Black, London

Epistemological theories can be represented as responses to an infinite regress argument about justification. One premiss of the argument denies that there exists an infinite sequence of justified beliefs each of which is a reason for its predecessor. That premiss seems true, but, contrary to some arguments for it, there do exist infinite sequences of justified beliefs. Whether the premiss is true therefore turns on whether, in any such sequence, each element is a reason for its predecessor. No example is forthcoming.

Foundationalism and Coherentism From a Contextualist Point of View

Michael Blome-Tillmann, Oxford

The paper argues that epistemic contextualism provides a neat resolution of the controversy between and the individual problems of foundationalism and coherentism.

Metaphors and Metaphysics

Ewa Bolińska, Jan Werszowiec Płazowski, Marek Suwara, Cracow

Metaphor is discussed as an element cultural communication. It is suggested that the very concept of a metaphor lies in its structure. Metaphors are necessary for understanding of intentional messages. The authors discuss metaphysical metaphors as those crucial for constructing common world view.

Two Conceptions of Logical Form

Guido Bonino, Torino

In this paper a brief presentation of Wittgenstein's picture theory of language is provided, as it is put forth in the *Tractatus Logico-Philosophicus*. Then some considerations are made with reference to the notion of logical form. In particular, two different conceptions of logical form are expounded, the "poor" one and the "rich" one. The second is shown to be untenable as it does not guarantee the automatism of sense. A sort of nominalistic bias is singled out as a possible reason prompting the "rich" interpretation of logical form.

Pragmatic Epistemic Justification and F. Gonseth's Idoneism

François Bonsack, Neuchâtel

A real question to ask is not "What is knowledge?", but "What is knowledge used for?". The answer to that question leads to weakening the notion of truth to something like adequacy. This notion of adequacy is compared with that of truth.

Wittgenstein on Knowledge (1949-1951)

Yves Bouchard, Sherbrooke / Quebec

This paper aims at providing a characterization of Wittgenstein's contextualism as it appears in *On Certainty*, by means of an evaluation of its particularity in terms of holism, internalism, fallibilism, and egalitarianism. In final analysis, Wittgenstein's epistemology presents an intermediary position between strict coherentism and strict foundationalism that rejects the idea of a unique model of epistemic justification.

Bayesian Coherentism II

Luc Bovens, Boulder
Stephan Hartmann, Konstanz

We define a measure that induces a coherence quasi-ordering over information sets and show that this measure gives intuitively plausible answers in a wide range of cases. With this measure in hand, we can also show that existing attempts to define a probabilistic model are vulnerable to counter examples. We examine the repercussions of our analysis for the coherence theory of justification and for coherence as a criterion of scientific theory choice.

Radical Probabilism and Mental Kinematics

Richard Bradley, London

Richard Jeffrey's death last year deprived philosophy of a highly original thinker. His main contribution to epistemology was an anti-foundationalist form of Bayesianism that he termed 'Radical Probabilism'. Like many other Bayesians, the radical probabilist denies the existence of an ideal, unbiased starting point for our attempts to learn about the world and so focuses attention away from the problem of justifying belief and towards that of motivating *changes* in belief. Unlike most Bayesians, however, the radical probabilist denies that the only justified change of belief is one based on the learning of certainties. For her probabilistic judgement is basic and irreducible.

‘Radical Probabilism makes no attempt to analyze judgement into a purely rational component and a purely empirical component, without residue. It rejects the empiricist myth of the sensuously given data proposition ... as well as the rationalist myth of the ignorance prior ...’ – (Probability and the Art of Judgement, p. 3)

Bayesian conditioning is appropriate when interaction with the environment yields new certainty of belief in some proposition but leaves one’s conditional beliefs untouched (the Rigidity condition). Although Jeffrey made it clear that one could not expect Rigidity to be satisfied on all occasions, one of his main contributions to probabilistic thinking is a form of belief updating – now typically called Jeffrey conditioning or probability kinematics – that is appropriate in circumstances in which Rigidity is satisfied but where the interaction causes one to re-evaluate one’s probability judgements over some partition of the possibility space without leaving one certain of the truth of any particular element. The most familiar occasion for Jeffrey conditioning is receipt of uncertain evidence: things partially perceived or remembered. But it also serves to illuminate belief updating occasioned by a change in one’s degrees of conditional belief, a kind of belief change largely ignored by classical Bayesianism (because of the Rigidity requirement). I argue that such changes in conditional belief can also be basic (in the sense of not analysable as a consequence of conditioning on factual information) and offer a kinematical model for a particular kind change in conditional belief.

The kinematical model can also be put to service in the analysis of preference change. I view changes in preference in a manner analogous to Jeffrey’s treatment of change in belief: not as mechanical outputs of combinations of intrinsic desires plus information, but as a matter of judgement, of making up one’s mind. Broadly speaking changes in preference can originate either in a change of belief or a change in taste or underlying value. Here I offer a model for belief induced changes in preference that depends on a Rigidity condition for preference and illustrate its consequences for cases of receipt of uncertain evidence and change in conditional belief. I finish with a note of the implications of such a ‘desirability kinematics’ for decision making.

On Horgan’s Causal Compatibilism

Janez Bregant, Maribor

It is quite obvious why the antireductionist picture of mental causation that rests on supervenience, is such an attractive theory. On one hand it secures the mental a preservation of its unique and different nature; on the other hand it tries to place the mental in our world in a way that is compatible with the physicalistic view.

But Kim reminds us that while trying to do so the antireductionists face the following dilemma: either mental properties have causal powers or they do not. If they have them we risk a violation of the causal closure of the physical domain; if they do not have them we embrace epiphenomenalism. So, either we violate the causal closure of the physics or we embrace epiphenomenalism.

The first section of the article describes Horgan’s antireductionist solution of the dilemma, whereas the second one introduces my objection to it.

The Knower Paradox and Epistemic Closure

Elke Brendel, Mainz

The question of whether knowledge is closed under known logical entailment is a much discussed problem in epistemology since it has a bearing not only on epistemic logic but also on the analysis of knowledge and the problem of scepticism. The principle of epistemic closure (PEC) roughly means that if S knows p and knows that p entails q, then S knows q. *Prima facie* PEC appears to be an important rational principle for knowledge acquisition and scientific progress. Nevertheless, many philosophers choose to reject PEC for various logical and non-logical reasons.

The famous *Knower Paradox*, in which a seemingly true sentence is shown to exist that cannot be known to be true, seems to provide a kind of *a priori* reason to reject PEC. If this were true, PEC would be disqualified from the start and no sophisticated analysis of knowledge would be needed to answer the question of whether PEC is correct in a negative way. However, I will show that if a formal derivation of the Knower Paradox is at all possible, we have to adopt a certain syntactic approach of knowledge in which the Knower Paradox can be understood as a certain analogue to Gödel’s first incompleteness theorem and does not therefore lead to a contradiction that gives rise to reject epistemic closure. On the contrary; without the assumption of epistemic closure we would not be able to learn important lessons from the Knower Paradox concerning our limits of knowledge in logical reasoning. Although the Knower Paradox does not provide a logical reason to abandon epistemic closure, it still seems plausible to restrict PEC within a contextualist account of knowledge in order to meet the sceptical challenge.

Bewitched by the Word “Know”

William H. Brenner, Norfolk / VA

“The philosopher doesn’t just want true beliefs [H]e wants to have the relevant features of the world directly before consciousness.” Reading Duncan Pritchard’s “Recent Work on Radical Skepticism” (*American Philosophical Quarterly*, 2002), particularly the preceding quotation from Robert Fumerton, left me with a feeling of *deja vu* and a hunch that recent epistemology might profit from a review of Wittgenstein. In this paper I follow up that hunch with a set of *On Certainty*-based, dialogical reflections on radical skepticism, and on the philosophical picture that seems to generate it - that of knowing as “taking the fact known into one’s consciousness.”

Über erkenntnistheoretische Implikationen der algorithmischen Informationstheorie

Joachim Bromand, Bonn

Gegenstand des Vortrags ist die Frage, ob die Ergebnisse Gregory Chaitins, welche von zentraler Bedeutung für die algorithmische Informationstheorie sind, tatsächlich wie von ihm behauptet auf Grenzen unseres mathematischen Wissens hindeuten. Es werden eine einfache Argumentation für Chaitins These sowie deren Voraussetzungen erörtert. Die philosophische Bedeutung von Chaitins Unvollständigkeitstheoremen einschränkend soll allerdings gezeigt werden, dass die fragliche Argumentation ebenfalls bereits auf der Grundlage der klassischen limitativen Theoreme von Gödel, Church und Turing geführt werden könnte, so dass Chaitins Ergebnisse in dieser Hinsicht nur einen unwesentlichen Fortschritt darstellen.

'Mir ist, als wüßte ich, daß die Stadt dort liegt.' Unbegründete Überzeugungen und sekundäre Bedeutung

Marco Brusotti, Berlin

Durch den Vergleich mit unbegründeten Überzeugungen will Wittgenstein ein Licht auf Phänomene werfen, die er zur 'sekundären Bedeutung' rechnet. Die Frage ist, wie weit die Analogie reicht und ob sie für sekundäre Bedeutung *überhaupt* gilt. Zum Vorschein kommt eine ziemlich heterogene Familie: Man kann zwei entgegengesetzte Pole markieren und Zwischenstufen unterscheiden. Der interessanteste Fall - die sekundäre Bedeutung von 'Bedeutung' - ist insofern mit jenen unbegründeten Überzeugungen verwandt, als auch hier zwischen primärer Bedeutung (Bedeutung als Gebrauch) und sekundärer Bedeutung (erlebter Bedeutung) zuletzt kein Begründungszusammenhang besteht. Weder betrachtet Wittgenstein letztere als marginal, noch fällt er in eine privatsprachliche Auffassung zurück.

Non-epistemic Values and Scientific Knowledge

Paul Burger, Basel

In *Science, Truth, and Democracy* Philip Kitcher presents arguments to the effect that scientific inquiry is value-dependent in so far as “scientific significance” is crucial to understanding the scientific enterprise and is analysable only in terms of human interests. He proposes a marriage between value dependence and moderate scientific realism, challenging thus a long-standing tradition of radically separating non-epistemic values and scientific knowledge. In my paper I want to make the rationale of that marriage more comprehensible and interpret it as a step towards a naturalized philosophy of science. In my first section I will make clear what I understand as “naturalizing” and what I take to be the substantial problem, i.e. the steering function of non-epistemic values in cognitive processes. The second section will identify the assumptions on which the separation of non-epistemic values and knowledge are based. In the third section Kitcher’s arguments in favour of a marriage will be presented and evaluated. Finally, I will sketch a positive account how non-epistemic values steer cognitive processes.

Symptome, Eigenschaften und Teile: Wissen in der Medizin

Hans Burkhardt, München – Leipzig

Abhandlungen zur Philosophie der Medizin konzentrieren sich meist auf Verfahren und Methoden, die in der Medizin vorkommen oder vorkommen sollen, manchmal auch auf medizinisches Handeln, d.h. auf ärztliche Kunst und Ethik. Es fehlen Untersuchungen zur Ontologie der Medizin, die von der Struktur des gesunden und kranken Menschen ausgehen und aufgrund dieser Struktur das ärztliche Wissen und Handeln bestimmen. In diesem Beitrag wird versucht, ausgehend vom medizinischen Begriff des Symptoms, eine geeignete Ontologie zu entwerfen und auf deren Grundlage medizinisches Wissen zu analysieren und zu charakterisieren.

Chomsky, Knowledge of Language and the Rule-Following Considerations

Mark J. Cain, Oxford

According to Noam Chomsky, speakers of a language have a substantial body of propositional knowledge of that language that they draw upon in language production and comprehension. This body of knowledge is conceived as being represented in the mind-brain. In this paper I develop an account of the nature of the challenge to Chomsky that is generated by Wittgenstein's rule-following considerations. This challenge is intimately bound up with Wittgenstein's critique of the appeal to interpretations in solving the problem of rule-following.

The Ground of Being: Wittgenstein's "Religious Point of View"

John Canfield, Toronto

The aim of this paper is to explicate a difficult remark Wittgenstein made to his friend Drury: "I am not a religious man but I cannot help seeing every problem from a religious point of view." The puzzlement particularly concerns the later philosophy: What, for example, does the private language argument have to do with religion? What lies behind a religious point of view is a view of religion, and so I approach my problem by looking for religious beliefs that might plausibly be attributed to Wittgenstein. Some such beliefs are to be found in the mystical solipsism of the *Tractatus*. My strategy is to argue that the later Wittgenstein holds similar convictions. Part I of this paper sets out an interpretation of the mystical religious content of the *Tractatus*. Part II establishes points of similarity between that content and some of the later W.'s writings on religion. Those remarks, so understood, set forth religious ideas Wittgenstein held early and late. The central common point is belief in religious grace – the Tractarian world of the "happy man". Given that understanding of his religious assumptions, Part III explains how the later Wittgenstein can be interpreted as seeing philosophical problems from a religious point of view.

Wittgenstein on the Structure of Justification: Breaking New Epistemological Ground

Carol Caraway, Indiana / Pennsylvania

I investigate Wittgenstein's views on the structure of justification, comparing them to Foundationalism, Holistic Coherentism, and Contextualism. Wittgenstein's remarks fit neither these theories, nor some sort of combination theory. Foundationalists typically see each basic belief as capable of standing alone without connections to, or support from, other basic beliefs. Holistic Coherentists deny that there are such self-sufficient basic beliefs, maintaining that all our beliefs are inferential and interdependent. Wittgenstein breaks new epistemological ground by maintaining that basic beliefs exist, but do not stand alone. Our interconnected and mutually supporting basic beliefs form a strong and ample foundation for our inferential beliefs.

Wittgenstein on Believing that p

Rosalind Carey, Lake Forest

Already early in his career Wittgenstein wishes to distinguish what is of interest to the logician—in particular, the proposition, what is believed, asserted, denied, and so forth—from the subject matter of the psychologist: the nature of believing, and other cognitive phenomena. In this talk I argue that insight into Wittgenstein's conception of the proposition as belonging to the domain of logic, and logic as distinct from psychology, emerges from a source not usually addressed: Russell's brief attempt in *Theory of Knowledge* to reduce belief that not-aRb to the form: *disbelief* that aRb. I argue that Wittgenstein's rejection of this strategy leads Russell, within weeks, to adopt a crude, but the earliest version of Wittgenstein's bipolarity theory.

Managing Dialogue in Terms of Belief and Acceptance

Louis Caruana, Rome

The focus of study is a dialogue situation in which one party holds that P while the other holds that $\sim P$. A simple way to establish harmony between the parties in dialogue is to insist that each should include the other's point of view. This is unsatisfactory because it results in an inconsistent set of beliefs. Clarity is essential, therefore, on how to deal with inconsistency. In this paper, I will proceed in two steps. In the first, I will indicate how some attempts at trying to manage contradictions in terms of ontology remain unsatisfactory. In the second step, I will introduce and evaluate another way in terms of belief and acceptance. I make an original application of L.J. Cohen's distinction between belief and acceptance, the former being a matter of feeling, the latter a matter of policy in reasoning.

Tensions in the Tractarian Notion of Analysis. A New Interpretation of *Tractatus* 4.221

María Cerezo, Navarre

In this paper I want to present the results of my research on the two main theories of the proposition in the *Tractatus*, the *truth-functions theory* and the *picture theory*, and to address the question of their combination. It is mostly accepted that, as Wittgenstein conceived it, the combination of the two theories was not successful. I want to take a step further in this regard, and show that underlying the problems usually pointed out there is a deeper difficulty that concerns the ambiguity of the notion of *elementary proposition*. I will try to show that the demands of each of the theories cannot be fully respected by the other one. Indeed, I think that there is evidence to show that Wittgenstein was somehow aware of this difficulty at the time he wrote the *Tractatus*, and I want to maintain that this awareness is what is expressed in the last part of one particular paragraph, T 4.221.

In order to show the ambiguity of the notion of elementary proposition, I will argue for the presence of a twofold notion of analysis in the *Tractatus*: *expressional* and *structural* analysis, and a corresponding twofold atomism. The difficulty arises as a consequence of the twofold role that the notion of elementary proposition is required to play. The proper place for this notion to appear is the theory of truth-functions, where elementary propositions are postulated as the first bases from which all the truth-functions can be constructed. However, Wittgenstein is obliged to invoke the notion of elementary proposition in the context of the picture theory as well. This displacement brings about an internal conflict between the two theories.

In addition to the conceptual argumentation for the presence of this tension in the *Tractatus*, I will offer a particular interpretation of T 4.221 and some pre-tractarian and post-tractarian texts in which Wittgenstein seems to struggle with the referred difficulty and I will try to show that some of the contemporary discussions (and also some of the old ones) on particular issues in the *Tractatus* are related to the tension in question.

Social Ethic Behavior Simulation Project

Krzysztof Cetnarowicz, Gabriel Rojek, Jan Werszowiec Płazowski, Marek Suwara, Cracow

The paper presents a programme to simulate ethics behaviour through a MAS method of DAI. Arguments justifying evolutionary approach as scientifically plausible experimental method are presented. The method, based on M-agent formalism, offers modelling various ethical systems in dynamically evolving society.

Leibniz, Information, Math and Physics

Gregory J. Chaitin, Yorktown Heights

The information-theoretic point of view proposed by Leibniz in 1686 and developed by algorithmic information theory (AIT) suggests that mathematics and physics are not that different. This will be a first-person account of some doubts and speculations about the nature of mathematics that I have entertained for the past three decades, and which have now been incorporated in a digital philosophy paradigm shift that is sweeping across the sciences.

Language as a Geometry in Wittgenstein's *Tractatus*

Leo K. C. Cheung, Hong Kong

This paper focuses on the notion of a picture in TLP 4.011-4.016, and aims to argue that the *Tractatus* in effect takes language as a geometry, where a geometry is defined by means of a transformation group with the invariants under the application of all the transformations of the group as its objects. This also shows that the picture theory is influenced by Felix Klein's Erlanger Programm.

Moore's Proof of an External World. Just Begging the Question

Annalisa Coliva, New York

The aim of this paper is to assess Moore's Proof of an external world, in light of recent interpretations of it, namely Crispin Wright's (1985) and James Pryor's (unpublished). In the first section I will present Moore's original proof and claim that, despite Moore's intentions, it can be read as an anti-sceptical proof. In the following two sections I will present Wright's and Pryor's interpretations of it. Finally, I will claim that *if* we grant some of Pryor's intuitions, it is true that the proof does not exhibit what Wright calls "transmission-failure" and Pryor misleadingly presents as a case of question-begging argument. I will then offer my own interpretation of what a question-begging argument is. On that basis, I will claim that, contrary to what Pryor maintains, Moore's proof is not just wanting because of a generic dialectical shortcoming, but because it begs the question after all.

Über die epistemologischen Grundlagen der Religionsphilosophie von Max Adler

Ewa Czerwińska, Poznań

Der Gegenstand unserer Betrachtung ist die Rekonstruktion der epistemologischen Grundlagen der Religionsphilosophie, die auf einer Synthese der Gedanken Kants und Marx' gründet. Ihr Autor ist der bekannte Wiener Philosoph aus dem Kreise des

Austromarxismus, Max Adler (1873-1937). Das Konzept ist in dem philosophischen Gesamtsystem Adlers (d.h. „dem Marxismus ohne Materialismus“), und insbesondere in der Epistemologie tief verwurzelt, in der die Grundannahmen der Kantischen Kritik der Erkenntnis auf die Sozialwissenschaften übertragen wurden. Die Einführung ihres grundlegenden Resultats, nämlich der Kategorie der apriorischen Vergesellschaftung als einer erkenntnistheoretischen Grundlage zur Erkenntnis der religiösen (und ethischen) Phänomene in die Sphäre der Religion hat Adler dazu geführt, die theoretischen Voraussetzungen der Philosophie Kants wesentlich zu modifizieren. Die durchgeführte Modifizierung legte am Ausgangspunkt selbst den Begriff der Religion anders fest, und gab darüber hinaus den Kantischen religiösen und ethischen Kategorien einen neuen, kollektivistischen Sinn. Die Postulate Gottes, der Freiheit, der Unsterblichkeit wurden in dieser Fassung der Religion in ein Bindeglied umgewandelt, das den theoretischen und den praktischen Verstand, die Notwendigkeit und die Freiheit verbunden hat. In unserer Analyse der Religionsphilosophie M. Adlers wurde der Schwerpunkt auf folgende Aspekte gelegt: 1) die auf dem Boden dieser Philosophie erarbeitete kritisch-erkenntnistheoretische Auffassung der Religion, 2) die eingeführte Kategorie des Erlebnisses, d.h. der verstehenden Erfahrung, 3) die vorgeschlagene Art, religiöse Kategorien mit dem Handeln des kollektiven Subjekts zu verbinden, 4) das Verständnis der Zukunft der Religion. Die von uns durchgeführte Analyse berechtigt zu der Annahme, daß die Adlersche Konzeption der Religion im Vergleich zu der Kantischen und Marxschen Auffassung neuartig ist.

Das cartesische Begründungsideal und seine kritische Rezeption durch Sosa und Wittgenstein

Daniel Dohrn, Erlangen

E. Sosa kritisiert im Anschluß an Wittgenstein Descartes' philosophischen *foundationism*, übernimmt aber einiges davon in seinen *reliabilism*. Sosas und Wittgensteins Kritik wird zusammengefaßt, um sie dann mit Hilfe der cartesischen Konzeption der moralischen Gewißheit weitgehend zurückzuweisen, an die Sosa mit seiner Idee einer epistemischen Tugend anschließen könnte.

On the Epistemic Evaluation of Arguments

Georg J. W. Dorn, Salzburg

From an epistemic point of view, arguments are divided into those that are strong and those that are weak. I will concentrate on the following definition, given in the framework of subjective probability theory.

Let **A** be an argument with *B* as its premiss conjunction and with *C* as its conclusion. Let *p* be a probability distribution of some agent over a set of sentences that contains *B* and *C*. Let us say:

If $0 < p(B) < 1$ and if $0 < p(C) < 1$, then:

A is strong under *p* iff $p(B) > 0.5$, $p(C, B) > 0.5$ and $p(C, B) > p(C, \text{not } B)$.

A is weak under *p* iff **A** is not strong under *p*.

Corollaries: For all **A**, *p*, *B* and *C*: if *B* is the premiss conjunction of **A** and *C* the conclusion of **A** and $0 < p(B) < 1$ and $0 < p(C) < 1$, then:

A is weak under *p* iff $p(B) \leq 0.5$ or $p(C, B) \leq 0.5$ or $p(C, B) \leq p(C, \text{not } B)$;

if $p(B) \leq 0.5$, then **A** is weak under *p* (regardless of whether **A** is valid or even sound);

if **A** is countervalid, then **A** is weak under *p*.

Explications: If $0 < p(B) < 1$ and if $0 < p(C) < 1$, then:

B is an argument for *C* under *p* iff $\Gamma B \text{ Therefore } C \top$ is a strong argument under *p*.

B is an argument against *C* under *p* iff $\Gamma B \text{ Therefore } C \perp$ is a strong argument under *p*.

A is a strongly convergent argument under *p* iff each premiss of **A** is an argument for the conclusion of **A** under *p*.

In my lecture, I will explain my above definitions, mention some of their advantages and then deal with their shortcomings.

Evidence, Explanation, and the Empirical Status of Scientific Realism

Igor Douven, Rotterdam

There is good reason to believe that, if it can be decided at all, the realism debate must be decided on a posteriori grounds. But at least prima facie the prospects for an a posteriori resolution of the debate seem bleak, given that realists and antirealists disagree over two of the most fundamental questions pertaining to any kind of empirical research, to wit, the questions what the range of accessible evidence is and what the methodological status of explanatory considerations is. The present paper aims to show that, while the difficulties that face an empirical approach to the realism debate are not to be discounted, they are not insurmountable either. Specifically, it presents a broadly Bayesian strategy for resolving the debate that is capable of solving those difficulties and that seeks to emend earlier Bayesian approaches to the realism debate. The strategy crucially involves answers to the aforementioned questions that diverge from both the standard realist and the standard antirealist answers but that are more natural and plausible than those, and that should be acceptable to realists and antirealists alike.

Knowledge and Belief according to Lanza del Vasto

Antonino Drago, Naples

A connection between belief and knowledge (intended as failed from a higher status) characterizes an analysis that Lanza del Vasto offered on two Christian texts, i.e. Genesis 3 and Apocalypse 13. His analysis culminates in an instrumentalist use of scientific knowledge; which agrees with two basic philosophical principles of knowledge - about the kind of infinity and the kind of organization of a theory - pertaining to several traditions. One can show that these two principles are capable to represent the foundations of modern scientific knowledge, mathematics and physics included.

Mimesis and Metaphor

Thomas Eder, Vienna

In my paper an up-to-date and renewed conception of mimesis and metaphor shall be sketched. Furthermore the consequences of metaphorical operations for scientific knowledge and belief can be shown.

I will try to outline the mimetic potential of metaphors in literary texts which focus on their linguistic mediality, using central ideas of the approach to a theory of symbols that Nelson Goodman suggested in his "Languages of Art" (Goodman 1976). By challenging Goodmanian ideas of representation I will sketch two new models of mimetic representation in poetic metaphors: schema-mimesis and self-referential mimesis or exemplificational mimesis. I will close with some remarks on the question of what this renewed conception of mimesis means for a concept of metaphor, especially for metaphor in science. Could poetry that refers to its own linguistic mediality not turn out to be a crucial sceptical challenge to knowledge based theories in science?

The Price of Theistic Appeals to Inscrutable Evil: Why the Evidential Problem of Evil is still a Problem for the Theist

Mylan Engel, DeKalb / Illinois

Gratuitous evil is evil that serves no God-justifying good, where a good G is a God-justifying good for evil E iff (i) it is logically impossible to attain G without allowing the occurrence of E and (ii) the positive value of G is such as to outweigh the negative value of E . It is generally agreed by theist and atheist alike that an omniscient, omnipotent, omnibenevolent deity would prevent the occurrence of any gratuitous evil whatsoever and that, *ipso facto*, gratuitous evil is incompatible with God's existence. Given the incompatibility of God and gratuitous evil, the atheistic evidential arguer from evil argues as follows:

Evidential Argument (EA)

1. If God exists, there would be no gratuitous evil.
2. But there is gratuitous evil.

Therefore,

3. God does not exist.

EA is valid and 1 is true. But what about 2? The evidential arguer admits that we cannot know with certainty that 2 is true, but insists that the vast amount, variety, and distribution of evil make it extremely reasonable to believe that gratuitous evil exists and that God does not.

In response, Wykstra, Plantinga, et al. maintain that no amount of evil—not even 10^{13} turps of evil!—is any evidence against God's existence, because God's purposes may be Beyond Our Ken. Call such responses "BOK-maneuvers." Wykstra, e.g., bases his BOK-maneuver on his CORNEA (Condition of Reasonable Epistemic Access) principle which runs roughly as follows: The absence of evidence for p is evidence for $\sim p$ *only if* we have reason to believe that the following subjunctive conditional is true: if p were true, then we would have evidence of p . Applying CORNEA to the evidential problem of evil, Wykstra argues that the atheist is not entitled to claim that it is reasonable to believe that pointless evil exists, because God's point for allowing evil may be beyond the grasp of finite humans. So, the subjunctive conditional 'If God were to have a purpose for all the evil we see, we would be able to tell what that purpose is.' is not true. Since we lack epistemic access to God's purposes, we cannot justly conclude, for any instance of evil, that it has no purpose. I will argue (i) that BOK-maneuvers to save theism fail to solve *the real evidential problem of evil*, but (ii) even if they were successful, their success would come at a cost no reasonable theist would be willing to pay, for, consistently applied, the kind of deity that BOK-maneuvers support would not be worthy of worship, devotion, or trust.

Closure and Rational Belief

Simon J. Evnine, Miami

I outline the use of a theory of rational belief as part of a theory of interpretation and argue that relative to this use, traditional principles of closure for rational belief are either too strong or too weak. I then suggest that some fairly specific closure principles can be justified by the fact that they involve logical relations that any interpretable creature must be able to grasp.

The cosmology of empty space: How heavy is the vacuum? – What we know enforces our belief

Hans J.Fahr, Bonn

Modern cosmology has a solid theoretical basis which is the field theory of General Relativity. This theory is thought to be axiomatically very clear and mathematically well developed. Nevertheless within this basic theory there remains the substantial question concerning the sources of spacetime geometry. Bringing General Relativity down to the Newtonian limit may well teach us how topically deposited massive matter curves spacetime. However, we do not have a Newtonian limit to estimate the "dark matter" contribution to spacetime curvature. Even much less we have an idea of the source strength of non-topical energy representations like energy densities as pure properties of spacetime itself which nowadays are seriously claimed to exist. Attempts nevertheless have been made to incorporate the source action of these latter poorly conceived quantities. This incorporation then leads to a multitude of new cosmological solutions obtainable from General Relativistic field Equations. Looking finally to an observational support for these new solution families it is recently becoming evident that concerning its energy content the cosmic world obviously only by 30 percent is made of topical mass depositions, the huge majority of which even is in the form of dark matter, but is made by 70 percent of diffuse energy density which is connected with the energy of the cosmic vacuum. The question thus rises whether we do believe that our universe is mainly made of "nothing" instead of "something", or whether we doubt that our present knowledge of space curving is solid enough. Essential knowledge is missing here to replace our present belief.

Hilary Putnams Religionsphilosophie zwischen Relativismus und Schizophrenie

Joerg Hermann Fehige, Mainz – Tel Aviv

Gegen die eingebürgerte Überzeugung, aus Putnams Schriften ließen sich keine Überlegungen zur Rationalität des theistischen Glaubens rekonstruieren, werden die bereits vorgelegten Rekonstruktionen geltend gemacht. Unter kritischer Aufnahme dieser Rekonstruktionen samt eingebrachter Einwände und Anfragen an Putnam wird dann für die These argumentiert, dass es sich bei Putnams Position um eine semi-fideistische Position innerhalb einer jüdisch-christlichen Religionsphilosophie handelt. Darunter ist eine Position zu verstehen, derzufolge die von religiöser Sprache ausgedrückten Sachverhalte zwar nicht durch Vernunft aufweisbar, aber gegen Einwände vom Standpunkt der Vernunft zu verteidigen sind. Religiöses Wissen ist sozialer Natur und aus der Binnenperspektive mit einer Gewissheit wahr, die religionsphilosophisch uneinholbar und nur in Begriffen einer erhofften Wahrhaftigkeit des Glaubens zu formulieren ist.

The Philosopher's Garden: Scepticism within (and from without) Wittgenstein

James Matthew Fielding, Leuven

The most comprehensive collection of Wittgenstein's remarks on scepticism have been collected and published posthumously in the work entitled, not unjustly, *On Certainty*. But if we were to look at this work we would not see a systematic analysis, but a collection of short remarks describing not the problem of scepticism, but the language used to discuss the problem. With this shift in perspective Wittgenstein has forever cast scepticism in a new light. But is "a new light" enough to solve the millennial-old problem of scepticism, or does it only, in the end, reassert its necessity as an ever present and, indeed, immanent fact of the human condition? But even then, perhaps the difference between the two may not be so great. This paper offers a short analysis, not only of Wittgenstein's philosophical position, but also of his methodology, in an attempt to unravel the intricacies of these complications so that, if we cannot solve the problem, at least we might gain a clearer perspective on Wittgenstein's critique of the sceptic.

The Scenery of Knowledge's Language-Game in Wittgenstein's *Philosophical Investigations*

Luis Flores H., Santiago de Chile

I bring into focus knowledge (*Wissen*) in Wittgenstein's *Philosophical Investigations*. My first claim is that it is possible to elaborate a concept of knowledge. My second claim is that the complexity of this concept has not been sufficiently drawn insofar as it exceeds the horizon of mind. My third claim is that the interpretation of the verb "to know" supposes the connection with Karl Bühler's theory of language.

Zur externen Kritik der Bayesianischen Epistemologie: Ein Vorschlag zur Differenzierung des Subjektivismusvorwurfs

Michael Frauchiger, Bern

Der gegen bayesianische Ansätze in der Epistemologie immer wieder erhobene Subjektivismusvorwurf soll differenziert werden, indem der Zusammenhang zwischen der Anwendung des Begriffs des rationalen Glaubensgrads und dem deskriptiven Anspruch bayesianischer Theorien hervorgehoben wird. In Auseinandersetzung mit relevanten Gegenargumenten wird eine externe Kritik der psychologistischen Grundkonzeption der bayesianischen Epistemologie formuliert.

Religious Belief versus Scientific Knowledge in Undergraduate Students of Psychology

Marta Helena de Freitas, Brasília

This study introduces a reflection about the way undergraduate psychology students experience their religious beliefs, doubts or disbeliefs in the context of their academic education. It is mainly based on the student's conversation produced in small group interviews conducted within the phenomenological perspective (Amatuzzi, 2001; Gomes, 1998). In the interviews, the students were asked about their motivations to participate in a research about the topic: their own religious beliefs and disbeliefs, and the impact on the scientific education upon those (Freitas, 2002). We discuss the supposed opposition between psychological knowledge and beliefs of religious nature, and reflect upon its implications to their future professional practice.

God and Hinge Proposition

Earl Stanley Fronda, Manila

Wittgensteinians had maintained that the attempt to justify belief in God is uncalled for because it is a hinge proposition and such is immune to doubt and beneath justification. But there are certain indicators that belief in God may not be a hinge proposition. For one, it is something not shared by all reasonable persons as hinge propositions are supposed to be. And another, casting doubt on it is not deemed an aberration as it would be with hinge propositions.

Seeing, Thinking, Acting Different: Wittgenstein's *Language Games* and Bateson's *News of difference* in Therapeutic Narratives

Michela Galzigna, Padova

This paper is a reflection on the intermediate area between philosophy and psychology. The ontological and epistemological basis of therapeutic narratives are considered from the standpoints of Wittgenstein's *language games* and Bateson's *news of difference* to find possible alternatives to the too rigidly structured analytical settings.

Connections and Divisions in *On Certainty*

Kim van Gennip, Groningen

From the 20.000 pages that constitute Wittgenstein's *Nachlass* approximately one fourth has appeared in print. Many of these publications have involved far-reaching editorial decisions that are barely accounted for. A critical comparison of the publication *On Certainty* to its sources reveals that *On Certainty* is not a "work" of Wittgenstein but an arbitrary compilation of material from the *Nachlass*. In addition, a critical evaluation of editorial claims as mentioned in *Last Writings on the Philosophy of Psychology, Vol. II: The "Inner" and the "Outer" 1949-1951* shows that Wittgenstein's concern with epistemology is not limited to *On Certainty*. Both points illustrate the shortcomings of making sharp distinctions in the *Nachlass*.

Und was wahr ist weiß der Teufel – Über Physik und Realität

Henning Genz, Karlsruhe

Die „Gesetze der Natur“, an die Physiker glauben und die sie herauszufinden versuchen, sind genauso real wie die Dinge – Stühle oder Stolpersteine. Als „Naturgesetze“ bezeichnet der Vortrag jene Annäherungen an die Gesetze der Natur, welche die Physiker herausgefunden und in Lehrbüchern festgeschrieben haben. Von den Gesetzen Gottes und der Menschen unterscheiden sich die Naturgesetze darin, daß sie nicht übertreten werden können, ohne dadurch widerlegt zu werden. Die Frage, ob ein Objekt – ein Elektron zum Beispiel – etwas Reales sei, können wir sinnvoll nur bei Vorgabe einer Sprache stellen, die diesen Begriff zur Verfügung stellt, das entsprechende Objekt geradezu erschafft. Letztlich sind es also die Naturgesetze, die den Objekten, von denen sie sprechen Realität verleihen. Ontologisch ist es mit dieser Realität aber nicht weit her. Unbedingt gehört zu ihr, daß das dem Objekt Realität verleihende Unterprogramm des Naturgesetzes es ermöglicht, Zusammenhänge zwischen Beobachtungssätzen herzuleiten, die ohne es nicht folgen. Das bedeutet aber nicht, daß den Objekten der Theorie konsistente ontologische Vorstellungen eindeutig zugeordnet werden könnten: Sowohl kann es sein, daß einem Objekt der Theorie keine in sich konsistente Vorstellung zugeordnet werden kann, als auch, daß mehrere das können.

Wittgenstein on Truth

Hans-Johann Glock, Reading

There is no theory of truth that has not been ascribed to Wittgenstein. Thus he has been 'credited' with a coherence theory, a pragmatic theory, and a consensus theory. By contrast, I argue that early and late Wittgenstein's views are part of the loosely speaking realist accounts of truth that dominate analytic philosophy. More specifically, I advance the following claims:

Standard correspondence interpretations of the *Tractatus* are mistaken, because they treat the isomorphism between a sentence and what it depicts as a sufficient condition of truth rather than of sense.

In Wittgenstein's early work there are *both* passages favouring a semantic-cum-deflationary *and* passages favouring a correspondence interpretation.

The official theory of the *Tractatus* is an *obtainment* theory--a sentence is true iff the state of affairs it depicts obtains. The obtainment theory involves a relation of correspondence, yet it is the relation of depiction between a sentence and the possible state of affairs it depicts, *not* a truth-making relation between a true sentence and the fact it depicts. In this respect it differs from some though not all correspondence theories, while its invocation of states of affairs/facts sets it apart from deflationism.

From this perspective, Wittgenstein's later deflationism does not constitute a radical break. He abandons the metaphysical account of depiction while holding on to alethic realism, the idea that whether a sentence is true is independent of whether we say or believe that it is.

Wittgenstein's remarks on consensus (PI §§ 240-2) do not amount to anti-realism, but only to a recognition that the concept of truth is linked to the concept of what people say or believe, or might say or believe.

There is a verificationist strand in the later Wittgenstein, but it concerns the concept of a *proposition*, not that of truth. Similarly, his discussion of rule-following is anti-Platonist without constituting an anti-realist position on truth.

The Dynamic Turn in Doxastic Logic

Paul Gochet, Liège

The dynamic approach to logic has led to important advances in many areas of epistemic logic. A dynamic doxastic logic (due to K. Segerberg) and an extended doxastic logic (due to S. Lindström and W. Rabinowicz) have been spelled out to formalize the theory of belief revision. I shall use that framework to tackle the problem raised by Moore's sentence "p is the case but I do not believe p". It is known that Moore's sentence becomes contradictory when it is prefixed by "I believe that". Yet its inconsistency disappears if we switch from the present to the past. The sentence "I believe that p was the case and that I did not believe it" is not inconsistent. I will show that the difference can be explained if we use the above-mentioned framework of dynamic doxastic logic enriched with a tense operator. It will be argued that some kind of relevant or paraconsistent logic is needed to avoid counter-intuitive theorems derivable in doxastic logic built on S4.

Epistemische Rechtfertigung durch neue probabilistische Methoden

Rainer Gottlob, Wien

Die MPEMethode (Multiplication of the probabilities of error) ermöglicht, semantisch unabhängige Hypothesen oder Beobachtungen zu bestätigen und Wahrscheinlichkeiten zu addieren. Im Gegensatz zur Bayes Methode wird die oft unbekannte Likelihood nicht benötigt. Über die Anwendung bei der Erkenntnis singularer Sachverhalte, bei wissenschaftlicher Erkenntnis und bei Naturgesetzen wird berichtet.

The Poverty of Theistic Cosmology

Adolf Grünbaum, Pittsburgh

In 1714, G.W. Leibniz posed the Primordial Existential Question (hereafter: "PEQ"): Why is there something contingent at all, rather than just nothing contingent? This question has two major presuppositions: (i) The notion of nothingness is both intelligible and free from contradiction, and (ii) *De jure*, there *should* be nothing contingent at all, and indeed there would be nothing contingent in the absence of an overriding external cause (or reason).

As for (i), the Null Possibility of there being just nothing contingent cannot be shown to be logically robust by trying to *identify* the *Null World* with the *Empty Set* of mathematics and logic. And as for (ii), it originated as a corollary of a distinctly Christian precept (going back to the second century) that the very existence of any and every contingent entity is utterly dependent on God at any and all times. Clearly, if either of these presuppositions of Leibniz's PEQ is either ill-founded or demonstrably false, then PEQ is *aborted* as a *non-starter*, because it is posing a *non-issue* (pseudo-problem).

I have introduced the designation "SoN" for the ontological "spontaneity of nothingness" asserted in presupposition (ii) of PEQ. Clearly, (ii) can be challenged by asking the *counter-question* "But why *should* there be nothing contingent, rather than something contingent?" Leibniz offered an *a priori* argument for SoN. But I contend that a *a priori* defenses of it fail, and that there is no empirical support for it either. Thus PEQ is shown to be a non-starter.

Yet Leibniz and the English theist Richard Swinburne offered divine creation *ex nihilo* as their *answer* to PEQ. Hence their PEQ cannot serve as a springboard for creationist theism, and their cosmological arguments for the existence of God are fundamentally unsuccessful.

Furthermore, I contend that the proposed theological explanation of the ultimate *laws of nature* likewise fails multiply.

Thus, I have argued for the Poverty of Theistic Cosmology in two major respects.

Counterexamples to Epistemic Externalism Revisited

Thomas Grundmann, Tübingen

Simple externalism claims that nothing more than a reliable process is needed to generate justified beliefs. Internalists object to this view that it conflicts with our intuitive understanding of justification. According to them, a reliable truth-connection is neither necessary nor sufficient to this understanding. This point is illustrated by two well-known counterexamples to externalism. One - the so-called demon-scenario due to Lehrer and Foley -- is supposed to show that even under complete delusion someone might be justified in believing what she believes. The other -- Norman's case due to Bonjour -- is supposed to reveal the implicit irrationality of anybody who holds on to her beliefs even in the face of lacking evidence. Externalists often tend to accept these counterexamples as showing that, from an intuitive point of view, simple externalism cannot be the whole truth. Hence, they either adapt their position more or less to internalist intuitions, or they claim that these intuitions are only of restricted relevance. The latter stance is taken by revisionists as well as by philosophers who believe that our concept of justification is deeply ambiguous. In my talk, I will argue that externalists better should and can give a straightforward answer to the alleged counterexamples. On my view, these examples do not establish that the externalist conception of justification is intuitively inadequate. I will not only show that and why this is so, I will also explain why, at first glance, these counterexamples have so much intuitive force.

Reflective Equilibrium – Method or Metaphor?

Susanne Hahn, Duisburg

The term 'reflective equilibrium' was coined by John Rawls. In *A Theory of Justice* Rawls proposes reflective equilibrium (= RE) as a means of justifying principles of justice. The general idea is to justify principles by matching them with considered pre-theoretical judgements: A state of RE holds if (after mutual adjustments) considered judgements of justice and principles of justice fit together. The idea of justifying principles by adjusting them to considered judgments can be traced back (at least) to the justification of rules of induction and deduction by Nelson Goodman. Goodman argues: "Principles of deductive inference are justified by their conformity with accepted deductive practice. ... *A rule is amended if it yields an inference we are unwilling to accept; an inference is rejected if it violates a rule we are unwilling to amend.* The process of justification is the delicate one of making mutual adjustments between rules and accepted inferences; and in the agreement lies the only justification needed for either." (Fact, Fiction, and Forecast, 63f.)

Along with the spread of *A Theory of Justice* RE has got some attention, too. Some authors accounted RE to be a method of justification in a coherentist spirit; others subsumed it under modest foundationalism. Some accused RE for its conservatism; some criticize it to be a form of subjectivism or conventionalism. Others tried to distinguish diverse kinds of equilibria; the most famous ones are wide and narrow equilibria.

The dissent on the assessment of reflective equilibrium points to the fact that it is only a *metaphor* unless at least the following questions are answered: What are the >ingredients< of equilibrium and what kind of relation holds between them, i.e. what do the often used expressions 'match', 'fit', 'coincide' and 'conform' mean? Which epistemological claim is asserted by stating that something is in a state of RE?

Guided by the assumption that the idea of RE can be transformed into an applicable method of justification avoiding the deficiencies of foundationalism and coherentism a specified version from a pragmatic perspective is proposed.

The suggested version focuses around the notion of 'approved practice': The ingredients of an equilibrium are (pre-systematic) approved patterns of actions on the one hand side and (systematic) action-guiding rules on the other hand side. Criteria for adjustment are first order principles, which require the *consistency* of a system of rules and actions and the fulfilment of specified *ends* the system must serve; second order principles are e.g. simplicity and efficiency. If an equilibrium (of a specified determined kind) is reached, the rules that are part of it are justified. The sort of justification is not an absolute one in a realistic fashion but a relative one: The rules are justified in relation to the first order and second order principles of adjustment.

The proposed version of RE has been applied to two quite different areas: the crisis of the foundation of mathematics, serving as a paradigm case, and the revision of public health care systems.

Bayesian Coherentism I

Stephan Hartmann, Konstanz
Luc Bovens, Boulder

When we receive information from independent and partially reliable sources, our confidence that this information is true is a function of how plausible the information is, how reliable we take the sources to be and how coherent the information is, i.e. how well the information fits together. We take on the project of spelling out the relationship between these determinants of belief in a probabilistic framework. The challenge in this project is to give a precise account of the relevant notion of coherence, so that we can order various information sets according to their relative degree of coherence. Several probabilistic measures that induce a coherence ordering have been defended in the literature.

We will show that this challenge cannot be met and that a strong version of Bayesian Coherentism cannot be upheld. There is no measure of coherence that permits the construction of a coherence ordering over information sets. Separability states that the more coherent an information is, the more confident we may be that the information set is true, *ceteris paribus*. We show that if one wants to respect this intuition, then only a coherence *quasi*-ordering can be constructed, i.e. a relation that is transitive and reflexive, but not necessarily complete.

Can the Universe Explain itself?

Michael Heller, Tarnów

Officially, ultimate explanations were banished from science for centuries, but now they have suddenly surfaced and are used to attract attention of general public to scientific theories. A kind of ultimate explanation is inherent in the scientific method itself. When confronted with a difficult problem the method is not allowed to surrender or to look for explanations outside the method itself. In this sense, scientific explanations are always, at least potentially, ultimate explanations. Although this ultimate character of scientific explanations is purely methodological, people dedicated to scientific research often dress it in ontological connotations.

This is especially visible in cosmology, where one deals with the Universe as a certain entirety. A cosmological theory should, like any other physical theory, be self-consistent, i.e., logically coherent and at least not remaining in conflict with empirical data, but in cosmology one often requires from a world model to be self-contained. Cosmological models have the form of solutions to certain differential equations, and to chose such a solutions one must impose the initial or boundary conditions. Usually one imposes these conditions by hand. This seems to be in conflict with the fact that, by definition, there is nothing outside the Universe. A theory or model is said to be self-contained if it makes this "imposing by hand" unnecessary. Various ways in which this could be done or in which the problem could be circumvent are presented and analyzed (among others, the idea of eternal return, steady state universes, eternal inflation, quantum creation models, the multiverse hypotheses, the concept of self-duality).

The history of physics and cosmology in modern times could be viewed as the royal road leading to justifying the existence of the Universe in terms of its own properties. To many scientists it seems that this goal is within the reach of their hand, just behind the corner. But if we make a step further, we clearly see that there is another assumption, another unjustified hypothesis hiding there. Our theories and our discoveries invariably reveal their "if..., then..." character. The unwanted "if" can be removed only when many new "ifs" take its place.

There are many interpretations of the last theses of Wittgenstein's *Tractatus*, but if we take these theses at their face value, we could regard them as a good comment on the main results of this study. Especially the following one: "The sense of the world must lie outside the world. In the world everything is as it is and happens as it does happen. (...) For all happening and being-so is accidental. What makes it non-accidental cannot lie *in* the world, for otherwise this would again be accidental. It must lie outside the world." (Thesis 6.41)

Knowledge, Belief, and Assertion

Frank A. Hindriks, Rotterdam

It is argued that, *pace* Williamson, assertion is not to be characterised in terms of knowledge. Williamson's claim that, on the traditional analysis, the truth rule is the constitutive rule of assertion is also mistaken. Instead, the traditional analysis, which is supported by the arguments provided, should be understood in terms of the belief rule. According to this rule the expression of a belief is constitutive of making an assertion.

Negative Epistemologie bei Kant und Wittgenstein: Die Kopenhagener Deutung des „Ich deute nicht“ am Grund unseres Urteilens

Doris Vera Hofmann, Kingston / RI

Die vorliegende Untersuchung arbeitet im Ausgang von Kant und Wittgenstein das Ende der Rechtfertigung als Grundlage unseres Urteilens heraus und leitet die verschiedenen Formen der Gewißheit aus dem jeweiligen Modus ihres Zuendekommens ab. Besonderes Interesse gilt dabei der wissenschaftlichen Hypothese, deren eigentümliche Art des Abbruchs weiterer Deutungen am Beispiel von Heisenbergs Verzicht auf die mathematische Rechtfertigung untersucht wird, wie Michael Frayns Drama *Copenhagen* sie darstellt.

A Correction Rule for Inductive Methods

Ruurik Holm, Helsinki

I will discuss the problem of choosing the correct inductive method from Carnap's (1952) continuum. My proposal is to use a correction rule to adjust the method according to obtained evidence. I will discuss a minimum requirement such a rule has to satisfy, especially from a constructive point of view. The question of refuting inductive scepticism by means of a correction rule is assessed.

Degrees of Belief as Basis for Scientific Reasoning?

Franz Huber, Konstanz

Bayesianism is the claim that scientific reasoning is probabilistic, and that probabilities are adequately interpreted as an agent's actual subjective degrees of belief measured by her betting behaviour.

Confirmation is one important aspect of scientific reasoning. The thesis of this paper is the following: If scientific reasoning is at all probabilistic, the subjective interpretation has to be given up in order to get right confirmation, and thus scientific reasoning in general.

Das Drama des Zeitgeistigen – Die 'Ludwig-Wittgenstein-Industrie' als *lieu de mémoire* des österreichischen Wissenschaftsbetriebs

Nicole L. Immler, Innsbruck

"I ought to be no more than a mirror in which my reader can see his own thinking with all its deformities, so that helped in this way, he can put it right." (*Ludwig Wittgenstein*)

Ludwig Wittgenstein's 50th anniversary of his death two years ago was the reason for remembering someone who was never forgotten. These recent publications and events are challenging to look at the 'drama' of Wittgenstein's instrumentalisation by science, influenced by society and politics. It's to ask why he was so popular in various disciplines and also *each* epoche had *their* Wittgenstein: These different perspectives tell more about the context than about Wittgenstein himself. About this mystic interest in Wittgenstein some things can be said with special focus on *Biographieforschung* and the *Kulturwissenschaften*: The focus on biography from the very beginning in Wittgenstein research seems to have connected the interests of different disciplines; supported also by Wittgenstein's *own* interdisciplinary philosophical writing. Further it's less his realizations than his method-oriented thinking, which is independent from times and disciplines and therefore grants always new perceptions.

(Presentation in German / Vortrag in deutscher Sprache)

Sehen als, Wahnsinn und Soziale Erkenntnis

Witold Jacorzynski, México

Eines der grössten und wichtigsten Probleme innerhalb der wittgensteinischen Epistemologie ist die Aufklärung der Konzepten *sehen als* und *Aspektwechseln*. Mein Artikel widmet sich der Vorstellung dieser Konzepten in Bezug auf die Beschreibung des Fall des Wahnsinnes von Don Quijote.

Ich führe an, dass der Wahnsinn ein soziales Konstrukt ist und auf dem Hintergrund des sozialen Bezugssystem erklärt werden muss. Das Bezugssystem nimmt die Form der sozialen Erkenntnis an, wird repräsentiert und gefördert von definierten sozialen Handelnden. Im Fall Don Quijotes existierten die soziale Kreise, die sein Weltbild unterstützen konnten, nicht mehr.

Die Handlungen der sozialen Agenten, aus der anthropologischen Sicht, kann als die Konjunktion dreier verschiedener Bedingungen dargestellt werden: der persönlichen Lebensgeschichte, der Kultur und der sozialen Struktur. In diesem Beispiel

zeige ich in welcher Weise die Kultur und sozialen Verhältnisse die Einschätzung der Figur *des Don Quijote de la Mancha* beeinflussen.

Epistemic Deontology, Doxastic Involuntarism, and the Principle of Alternate Possibilities

Christoph Jäger, Leipzig

Deontological accounts of epistemic justification analyze “positive epistemic status” in terms of epistemic rights, responsibility, duties, permission, and the like. Such views have a venerable tradition and enjoy significant support from our everyday speech: we frequently use locutions such as “She should have known better,” “He had no right to believe this of her,” etc. In recent years, however, epistemic deontology has increasingly fallen out of favor. One of the most influential attacks on it comes from the Argument from Doxastic Involuntarism (Argument from Involuntarism, for short). Roughly, this argument states that (1) epistemic deontology implies doxastic voluntarism (i.e., the view that beliefs are subject to voluntary control); (2) doxastic voluntarism is false; hence (3) epistemic deontology is unacceptable.

I argue that this criticism fails because it relies implicitly on a version of the Principle of Alternate Possibilities (PAP). This version claims that an agent has voluntary control over an action, or acts with free will, only if s/he could have done otherwise. Recent debates, however, have widely concluded that Frankfurt-style counterexamples demonstrate that PAP is false. Yet the Argument from Involuntarism uses this principle to derive the following doxastic analogue of PAP: a person has voluntary control over a belief B, or holds B with free will, only if s/he could have avoided holding it. Since this assumption is derived from the traditional (non-epistemic) version of PAP, which ought to be rejected, the Argument from Involuntarism breaks down. I conclude that epistemic deontology remains unshaken by the fact that people can’t simply choose which beliefs to hold. As long as we hold beliefs on the basis of what we think are good reasons, and want to hold them on the basis of good reasons, there is a crucial sense in which we hold them freely, even if we cannot refrain from holding them in light of such reasons. This sense of “holding beliefs freely” suffices to render them proper objects of epistemic deontology.

Konstruktion und Dekonstruktion des Radikalen Konstruktivismus

Ludger Jansen, Bonn

Eine erkenntnistheoretische Position, die insbesondere in der Soziologie und der Kommunikationsforschung einflußreich ist, ist der Radikale Konstruktivismus. Der Beitrag stellt zunächst kritisch die Erkenntnistheorie, das Kommunikationsmodell und die Wissenschaftsauffassung des Radikalen Konstruktivismus vor. Dann werden zwei Probleme dieser Position diskutiert: die ontologische Konfusion, in die manche konstruktivistischen Autoren sich manövrieren und die Ungeeignetheit des Radikalen Konstruktivismus als ultimative Meta-Position.

A Critical Assessment of Wittgenstein’s View on Religion: An Islamic Perspective

Mohsen Javadi, Qom / Iran

In this paper I will discuss Wittgenstein’s views on religion and religious language from an Islamic perspective. I will focus on those remarks of Wittgenstein that have led some of his commentators to conclude that he held a non-cognitivist view. In addition to criticizing non-cognitivism and showing some difficulties in non-cognitivist interpretations of Wittgenstein, I will argue that even if we accept some such interpretation, we still must not regard him as a non-realist about religion.

On the Plurality of Probabilist Measures of Evidential Relevance

James M. Joyce, Ann Arbor

Probabilist epistemologists and philosophers of science believe that evidential relationships are best understood in probabilistic terms. In particular, they maintain that an item of data provides *incremental* evidence in favor of some hypothesis just in case the hypothesis is more probable when the data is known than when the data is unknown. There is, however, no clear consensus among probabilists about the way in which evidence should be quantified. A plethora of inequivalent measures of incremental confirmation have been proposed. This appears to pose a serious problem because, as Brandon Fitelson and others have noted, some of probabilism's most celebrated contributions – for example, its solutions to well-known paradoxes in confirmation theory – depend sensitively on the precise way in which evidence is measured. This *problem of the plurality of measures* seems to leave us with only two options: either we despair of giving any quantitative account of incremental evidence, or we show that some specific function is the “one true measure of confirmation.” Either way, it seems that we must surrender many of the successes that have made probabilism so compelling. Fortunately, this is a false dichotomy. The various measures of confirmation capture different, but entirely legitimate, concepts of evidence, concepts that must play a central role in any adequate epistemology. Once we understand these various notions of evidence, and appreciate their *systematic* interconnections, we will realize that the plurality of measures of confirmation, far from being a detriment, is an tremendous advantage for probabilism. Indeed, it is what allows for the view's great flexibility and explanatory power when it comes to rationalizing pre-theoretical intuitions about evidence. We need a theory of confirmation that is able to characterize a variety of evidential relationships that hold across a wide range of states of background knowledge and opinion. Only a probabilistic theory that provides many measures of incremental confirmation is up to the task.

A copy of this paper is available on the worldwide web at <http://www-personal.umich.edu/~jjoyce/>

Jeffrey on Newcomb Problems and Causal Reasoning

James M. Joyce, Ann Arbor

Richard Jeffrey long maintained that decision theory should be formulated without adverting to explicitly causal notions. He saw it as a great advantage of his “logic of decision” that it did not need to traffic in counterfactual conditionals, causally homogenous partitions, objective chances, or any of the other shadowy surrogates for causal relationships that *causal decision theory* is forced to employ. Still, Jeffrey did not regard causal information as irrelevant to decision making. Rather, he maintained that any belief about causal relationships that a rational decision maker might need can be cashed out solely in terms of her subjective conditional probabilities for non-causal propositions. *Newcomb problems* stand out as putative counterexamples to this thesis, for in them acts provide evidence for desirable outcomes without causally promoting those outcomes. After failing to circumvent Newcomb problems via *ratificationism*, Jeffrey ended up arguing that these problems do not describe genuine decisions. Others, most notably Isaac Levi, have argued for a similar conclusion on the basis of somewhat similar premises. At bottom, this sort of reasoning hinges on the thought that people in Newcomb problems possess so much evidence about correlations between their acts and states of the world that they are unable to conceive of themselves as *free agents*. Such arguments go wrong by failing to recognize that an agent's beliefs about her own actions are “self-fulfilling prophecies” in the sense that they are among the *causes* of her actions. This gives the agent the power to *create* evidence that outweighs whatever information she may have about correlations between acts and states. Once we understand that freedom consists, at least partly, in being free to believe what one wants about one's prospective actions, we will see that Newcomb problems are indeed free choices. While this means that decision theory must advert to causal notions, it does not follow that the system of Jeffrey's *The Logic of Decision* should be jettisoned, just that it is not a logic of *decision*. It is, instead, a logic of *value* that will be an integral part of any adequate decision theory.

A copy of this paper is available on the worldwide web at <http://www-personal.umich.edu/~jjoyce/>

Private Language and Property Dualism

Jesper Kallestrup, Copenhagen

Wittgenstein's argument against the possibility of a private language has traditionally been taken as a refutation of old-style substance dualism. But the infallibility and omniscience with respect to one's own mental states associated with this view is inessential to the argument. What matters is whether these states are in principle publicly accessible. Given that some versions of new-style property dualism allow for the conceptual and metaphysical possibility of being in certain mental states without exhibiting any typical behaviour or brain-states, the argument targets both forms of dualism.

Internalism externalized. Doxastic Change, the Body, and Causation

Rainer Kamber, Basel

The following paper aims (1) to combine elements of a reliabilist account of knowledge with an internalist account of epistemic justification and (2) at an argument against scepticism regarding knowledge about the external world. It argues for both on the basis of (3) a discussion on the possibility of non-inferentially justified beliefs about causal facts.

An Argument against Skepticism

Kazuyoshi Kamiyama, Ibaraki / Japan

Do I know that I am not a bodiless brain in a vat who is programmed to have precisely the sensory experiences I've had? It seems plausible to answer "No" to this question. But the answer leads us to a serious skepticism about the external world. Dretske (1970) and Nozick (1981) have resisted it by denying the underlying closure principle which says that knowledge is closed under known logical implication. Unfortunately there are some persuasive criticisms against their arguments. In this paper I propose another anti-skeptical argument. I will show that we can escape from skepticism whether the closure principle is true or not.

Heuristische Ideen an den Grenzen des kosmologischen Wissens

Bernulf Kanitscheider, Gießen

Die aktuelle Wissenssituation in einem Forschungsbereich lässt sich grob in das jeweilige Standardmodell und eine Wolke von mehr oder minder gut begründeten heuristischen Hypothesen aufspalten. Im Bereich dieser spekulativen Heuristik wird oft versuchsweise mit tiefliegenden metatheoretischen Leitideen, die bisher die Forschung geführt haben, gebrochen. In einer Fallstudie soll speziell die physikalische Kosmologie in bezug auf diesen Grenzbereich untersucht werden. Wo das Standard-Modell der großräumigen Beschreibung der Welt seine Aussagekraft verliert, werden z. T. exotische Vermutungen vorgeschlagen. Kann man hier noch mit rationalen Verfahren evaluieren?

Zur Eigenart der Rationalität von Aussagen über Gott. Hinweise zur systematischen Auswertung von Kants KrV

Christian Kanzian, Innsbruck

Kants Auffassung der Rede von Gott in KrV kann auf zweierlei Weisen interpretiert werden. Einmal so, dass Kant aufgrund einer Beschränkung der Erkenntnis auf den Bereich der Erfahrung philosophische Gotteslehre aus den Wissenschaften verbannt. Eine zweite Zugangsweise ergibt sich daraus, Kants Auffassung als Begründung einer neuen Art der Rationalität der Rede von Gott zu reflektieren. Ziel vorliegenden Beitrags ist es, KrV dem zweiten Weg entsprechend zu interpretieren. So kann man die Relevanz der KrV für eine systematische Theorie von Aussagen über Gott und eine differenzierende Sichtweise der Rationalität von Gotteslehre und Naturwissenschaften andeuten. Unter drei Gesichtspunkten führe ich das aus: 1) Die unterschiedliche Funktion von Naturwissenschaft und Gotteslehre für eine philosophische Theorie der Erfahrung. 2) Die unterschiedliche formale Struktur und die verschiedenen Methoden der Rechtfertigung von naturwissenschaftlichen Aussagen und Aussagen über Gott. 3) Die Eigenarten von naturwissenschaftlichen („funktionalen“) Erklärungen bzw. („integrativen“) Erklärungen durch Rückgriff auf den Gottesbegriff.

Forms of Knowledge and Attestation: Wittgenstein's Incomplete Paradigm of Certainty

Ian Kaplow, Hannover

Starting from questions regarding doubt in Wittgenstein's *Zettel*, the author differentiates the following forms of knowledge: knowing how to apply singular terms (*propria*), how to apply general terms (*appellatives*), knowing who someone is, knowing what something is, and knowledge of meta-axioms governing the application of this knowledge. These forms are then set in relation to claims of truth and certainty regarding the speech-acts in which this knowledge is purported to be used. Wittgenstein's example of writing a letter is used to show that *certainty* in these contexts relies strongly on *attestation*, which is shown to be dominant over propositional knowledge. It is shown how belief, knowledge, and attestation can be seen as three separate epistemological factors.

Indefensibility, Skepticism and Conceptual truth

Philipp Keller, Geneva

It is true of many truths that I do not believe them. It is equally true that I cannot rationally assert of any such truth that it is true and that I do not believe it. Such a claim is indefensible, i.e. for internal reasons unable to convince. I claim that such is the skeptic's predicament, trying to convince us to bracket knowledge claims we have good grounds to take ourselves to be entitled to. An analysis of skepticism as an epidemic rather than epistemic challenge will shed new light on what it is to doubt a proposition and provide us with an analysis of conceptual truths as those which cannot rationally be doubted.

Zwischen Wissen und Glauben: Karl Mannheims Rekonstruktion des Konservatismus

Endre Kiss, Budapest

Für Mannheim erwies sich das Feld des Ideologischen als eine Objektivation, an welcher letztlich die "Veränderbarkeit der Welt" sich adäquat untersuchen liess. Sowohl die Begründung der Disziplin der Wissenssoziologie, wie auch die sozialontologische Einbettung derselben oder das konkrete Feld des Konservatismusforschung kreist sich um eine neue Sicht der Rationalität.

Wie Max Weber (und zur Zeit der Abfassung der *Konservatismus*-Arbeit auch viele andere wie beispielsweise der in Mannheims Werk direkt angesprochene Georg Lukács) haelt auch Karl Mannheim den "Durchbruch der Rationalisierung der Welt" für den bestimmenden Charakterzug der Neuzeit. So entsteht die Dualität zwischen "Vergesellschaftung" und "Entgemeinschaftlichung" als die beiden Seiten derselben Medaille der Modernisierung, bzw. der Rationalisierung. Die soziale-soziologische Trägerin der modernen Rationalität ist das moderne Bürgertum. Sie schreibt die Konturen jenes sozialen Raumes vor, in dem eine soziale Ontologie der Rationalität nicht "abstrakt", sondern im realen historischen Raum entworfen werden konnte. Eine der bleibendsten Errungenschaften der Konservatismus-Analyse Mannheims ist die mehr als skizzenhafte, wiewohl doch nicht ganz detaillierte Ausarbeitung des "liberalen" und des "proletarischen" Denkens neben dem "konservativen". In dieser Klassifizierung erscheint das proletarische Denken als eines, das in seiner Opposition zum bürgerlichen Liberalismus mit dem Konservatismus verwandt ist. Das proletarische Denken ist in Mannheims Vision *sui generis* rationalistisch, denn das Proletariat als Klasse sich überhaupt im Medium der modernen Industrialisierung, d.h. in dem der Rationalität konstituiert. Das Proletariat ist andererseits "irrationalistisch", dass sein chiliastischer Messianismus, genährt von seinem historischen Optimismus, die Kalkülen der Rationalität stets umwirft. Wir brauchen nicht besonders zu betonen, dass diese Auffassung diametral gegen Georg Lukács *Geschichte und Klassenbewusstsein* gerichtet ist.

Reasoning Competence

Jonathan Knowles, Trondheim

In recent philosophical reflection on empirical studies of human reasoning, the notion of a psychological *reasoning competence* has played a prominent role. Heralding from Cohen (1981), the idea is that we can draw a distinction between a person's reasoning *performance* and her underlying reasoning *competence*. Accepting this distinction suggests a way of defending the claim that humans are naturally rational: behaviour that diverges from normative standards can be seen as the upshot of a faulty application of competence, rather than reflective of competence itself. In a recent book, Stein (1996) bases his evaluation of various different attempts to defend human rationality on the assumption that we possess something like a reasoning competence. In this paper, I argue that this is not a fruitful way of understanding the issues involved, employing two main lines of argument. On the one hand, defences of the rationality thesis based on the idea that there is something a priori self-stultifying about showing that humans are irrational should not be couched in terms of claims about an underlying psychological competence, for the nature of such a (putative) competence is a thoroughly empirical matter. On the other hand, more empirical defences of the rationality thesis base their claims around the idea that we possess capacities for dealing with specific problems in our natural environment; these capacities function effectively in relation to these 'ecologically valid' challenges, but often fail in relation to structurally similar problems presented in experiments. The correct model for understanding such dysfunction is not that of slack between an underlying cognitive competence and its use in performance, but rather the way in which the visual system can give rise to illusory percepts when the environmental preconditions for its correct functioning fail to obtain.

An Account of Knowledge as Tracing

Igal Kwart, Jerusalem

In this paper I present an outline of a tracing account of empirical knowledge. The account is probabilistic, based on the notion of chance. It bears significant affinity to, and draws from, my chance account of token causation, though it does not presuppose it. The main tool is a probabilistic tracing condition, a variation of which will make possible a formulation of a discriminability requirement within this framework. It is supplemented by a causal requirement. The tracing condition will give us a handle on the problem of deviant causal chains concerning knowledge. The analysis will be extended from a core case in various directions.

Glaube und Wissenschaft beim Frankfurter Hegel

Anne-Kristina Kwade, Mainz

Wissenschaft und Glauben sind für den frühen Hegel keine Gegensätze. Dies zeige ich in drei Schritten: Ich stelle den ‚vernünftigen Glauben‘ des Frankfurter Hegel dar, zeige den Bezug von Hegels Erkenntnisbegriff zu Kants ‚ästhetischer Idee‘ und rekonstruiere Hegels Frankfurter Urteilstheorie. Sie beruht auf der ursprünglichen Beziehung von Glaube, Kunst und Denken.

Diese Beziehung löst das Erkenntnisproblem aus einseitig theologischem Zusammenhang und stellt es in den sprachphilosophischen. Ferner erhält dadurch Sprache ihren ursprünglichen Charakter zurück, den sie als Erkenntnis rein aus Begriffen verliert, und es kann ein ‚Dialog‘ zwischen Wissenschaft und Metaphysischem stattfinden. Nach Hegels Ansicht muss das geschehen, damit Wissenschaft nicht einseitig, voreingenommen und enggleisig werde.

Supervenience and Meta-Justification

Markus Lammenranta, Helsinki

The central coherentist critique of foundationalism brings forward a requirement of meta-justification for putative basic beliefs, which means that the beliefs are not basic after all. The foundationalist response denies this requirement, because it is in conflict with the doctrine of supervenience. It is argued that, even if the doctrine was true, there is still a need for meta-justification that arises within the context of the problem of the criterion. It is argued that coherentism provides a better account of the needed meta-justification, but that such meta-epistemic coherentism is in fact quite compatible with epistemic foundationalism.

Grundlagen der Logik und Mathematik – Der Standpunkt Wittgensteins

Timm Lampert, Bern

Es wird gezeigt, dass Wittgenstein in seiner Frühphilosophie ein nicht-axiomatisches Beweisverständnis entwickelt, für das sich das Problem der Begründung der Axiome nicht stellt. Nach Wittgensteins Beweisverständnis besteht der Beweis einer formalen Eigenschaft einer Formel – z.B. der logischen Wahrheit einer prädikatenlogischen Formel oder der Gleichheit zweier arithmetischer Ausdrücke – in der Transformation der Formel in eine andere Notation, an deren Eigenschaften sich entscheiden lässt, ob die zu beweisende formale Eigenschaft besteht oder nicht besteht. Dieses Verständnis grenzt Wittgenstein gegenüber einem axiomatischen Beweisverständnis ab. Sein Beweisverständnis bedingt ein Programm der Grundlegung der Mathematik, das eine Alternative zu den Ansätzen des Logizismus, Formalismus und Konstruktivismus darstellt. Wittgensteins Ansatz steht im Widerspruch zu den Ergebnissen der Metamathematik, da er die Möglichkeit der Formulierung von Entscheidungsverfahren in der Prädikatenlogik und Arithmetik voraussetzt. Um seinem Ansatz gegenüber der traditionellen Metamathematik Recht zu geben, müsste gezeigt werden, dass sein Beweisverständnis im Bereich der Logik und Arithmetik – der traditionellen Metamathematik zum Trotz – realisierbar ist.

The Normativity of Semantic Correctness: A Davidsonian Perspective

Maria Lasonen, Helsinki

In this paper I discuss the idea that using words in accordance with their meanings or grasping a condition of semantic correctness is a norm for meaning, for instance, green by 'green'. An alternative, Davidsonian conditional consists of an intention to mean something by a word, coupled with a justified belief that the intention will be understood. But if semantic correctness is not a norm, it may seem incoherent to claim, as Davidson does, that a background of correct application is constitutive of meaning something by a word. I argue that what seem like two sets of norms are not distinct, since intending to mean something by a word presupposes awareness of conditions of semantic correctness. From this starting point, it is circular to treat semantic correctness as a norm.

The Space of Reasons and the Realm of Freedom

Chong-Fuk Lau, Darmstadt

In this paper, we consider whether a "*space of reasons*" can justifiably be assumed against the "*space of causes*". Because epistemic discourse only makes sense if we can be taken responsible for what we say and believe, we must attribute to our mind a capacity of what Kant calls *spontaneity*. Alternatively, we say that the space of reasons is the realm of *freedom*. The difference between the two "spaces", however, is not an ontological one, but rather a logical one between two distinct ways of viewing things. It is argued that the space of reasons must be presupposed not only in order to account for the possibility of making knowledge claims, but also in return to make sense of the space of causes. Accordingly, freedom is not just compatible with, but even a necessary condition of causality.

The Rationality of Faith

Marion Ledwig, Haifa

Although certain assignments of vague probabilities to God's existence scotch the wager, these cases aren't live possibilities.

Depth Grammar and Surface Grammar of Religious Belief

Dorit Lemberger, Ramat Gan

This article's goal is to try and examine Wittgenstein's division as has been proposed in Investigations, i.e., a two level grammar: Depth Grammar and Surface Grammar and suggest applying this distinction upon religious belief. Two difficulties are encountered along the line: The first difficulty is the fact that the Depth concept is directed at the theorization of language's essence to which Wittgenstein consistently objects throughout all of his Investigations. The other difficulty relates to the quality of religious belief. Here too, there is some tension between Wittgenstein's attempt to point out religious belief's characteristics and the way he emphasizes the importance of the way each believer chooses to design his own religious belief. Following Wittgenstein's way, this article does not intend to 'solve' any existing problems but rather follow their linguistic expression and describe their characteristics.

Self-Knowledge, Theoretical Knowledge and Science

Yakir Levin, Beer-Sheva

As part of his celebrated attack on the "Myth of the Given" Wilfrid Sellars argues for a radical alternative to the orthodox conception of self-knowledge. On the orthodox conception self-knowledge is a paradigm of non-theoretical knowledge. In contrast, Sellars claims that self-knowledge is akin to theoretical knowledge in science. At the same time he takes self-knowledge to illustrate the fact that the distinction between the theoretical and the non-theoretical is merely methodological. While these general points are made fairly clearly by Sellars, the argument that he offers on their behalf is rather obscure. The main purpose of this paper is to provide a clear reconstruction of Sellars' argument. But the paper also provides a brief diagnosis of a crucial weakness in the argument due to which it is, ultimately, unsuccessful.

Wittgenstein und der Quellcode der medialen Moderne

Martin Lindner, Innsbruck

Das Referat will untersuchen, inwiefern „Wittgenstein“ (als historische Figur wie als heutiges kulturelles Konstrukt) tatsächlich eine Schlüsselfigur sein könnte, die den verborgenen Zugang zum Quellcode des Modernismus markiert.

Rückblickend erklärte das *Time Magazine* ausgerechnet den bekennenden Anti-Modernen und intellektuellen Esoteriker Wittgenstein zum wichtigsten Philosophen des 20. Jahrhunderts. Wittgenstein erscheint als Missing Link, in dem sich die scheinbar wirren und divergenten Diskursstränge des (Post-) Modernismus auf suggestive Weise vereinen: die philosophische Kritik der Erkenntnis und der Subjektivität nach dem „Linguistic Turn“ (Cambridge und Wiener Schule, Thomas S. Kuhn; austroamerikanischer Konstruktivismus, Lyotard, Systemtheorie); die Informatik/Kybernetik erster Ordnung (Turing, Heinz Zemanek, konventionelle KI ...), zweiter Ordnung (Förster, Glasersfeld ...) und dritter Ordnung („Docuverse“ des WWW, Interface Culture, „Knowledge Landscapes“); die Sprachspiele und Zeichenspiele des künstlerischen Neo-Avantgardismus; als POP-Ikone der postmodernen Medien- und Informationsgesellschaft.

Eternal Truth by Convention

Eric J. Loomis, Mobile / Alabama

Paul Boghossian has recently objected to any conventionalist characterization of "timeless truths", such as those of mathematics and geometry, on the grounds that conventionalism must implausibly regard such truths as becoming true only at the time of their stipulation. Drawing on an insight of Ludwig Wittgenstein's, I show that conventionalists can in fact offer a simple account of how some conventions can be regarded as timelessly true.

Erinnerung – „kein Sehen in die Vergangenheit“? Wittgensteins Begriff historischer Ereignisse

Wilhelm Lütterfelds, Passau

Im § 49 seiner „Philosophischen Bemerkungen“ erörtert Wittgenstein einen doppelten Begriff des Gedächtnisses - entsprechend dem doppelten Zeitbegriff der physikalischen Zeit und der Zeit als Form unserer Welt-Vorstellung, unserer Welterlebnisse und unseres Sprechens über die Welt. Zum einen ist das Gedächtnis gleichsam die „Aufbewahrerin“ der vergangenen „physikalischen Ereignisse“, indem es deren „Bilder“ speichert. Dieses Gedächtnis schreiben wir Personen zu, es existiert wie diese selber in der Zeit, war also einmal nicht und wird auch einmal nicht mehr sein. Doch in unseren Vorstellungen der Welt, die zu „Bildern“ in unserem Gedächtnis herabsinken, erfassen wir diese (historische) Realität zugleich selber und nicht irgendeine bildliche Stellvertretung derselben in unserem Geiste oder in unserem Gehirn. Insofern enthält das Gedächtnis selber den Zeitraum der Vergangenheit, in dem die vergangenen Ereignisse existierten - es wird damit zur „Quelle der Zeit“ (so Wittgenstein), genauerhin der vergangenen Zeit. Beide Begriffe des Gedächtnisses sind auseinander zu halten - der psychologische Begriff des Gedächtnisses als Erinnerungsvermögen einer bestimmten innerzeitlichen Person, in der eine Fülle von Bildern der vergangenen Ereignisse gespeichert sind. Und zum anderen jener Begriff des Gedächtnisses, das nicht bloß Bilder von vergangenen Ereignissen aufbewahrt, sondern die Ereignisse selber in seinen Vorstellungen. Dieses Gedächtnis kann kein psychologischer Begriff sein. Andernfalls wären nicht in ihm die historischen Ereignisse der Vergangenheit selber aufbewahrt.

Predictive Knowledge in Wittgenstein

Antonio Marques, Lisbon / Portugal

Predictive statements deserve a specific grammatical inquiry, since they have not only an epistemological status, but also appear in Wittgenstein's writings on philosophy of psychology and touch deeply the problem of free will. So predictive knowledge covers a very large spectrum of human experience. This grammatical exploration leads to acknowledge an essential difference between predictive statements, which are expressions or exteriorisations of will (*Willensäußerungen*) and predictions, which are made from the perspective of the third person (although they can be uttered in the first). As Wittgenstein notes: "Two things however, are important: one, that in many cases someone else cannot predict my actions, whereas I foresee them in my intentions; the other, that my prediction (in my expression of intention) has not the same foundation as his prediction of what I shall do, and the conclusions to be drawn from these predictions are quite different" (*PI*, lixi, 224e). It is the grammatical elucidation of predictive language games that allows us to solve the problem of the incompatibility between predicted and at the same time free choices.

If You Really Want to Know What You Mean, Read More Poetry

Fabienne Martin, Brussels

This paper is dedicated to viewpoints propositions (VPPs), a (lexically triggered) non-truth conditional component of sentences. A VPP introduced by a sentence denotes a Platonic (non necessarily embodied) viewpoint on the denotatum of this sentence. Unlike conventional implicatures, VPPs are not necessarily consciously processed by speakers and interpreters. The possibility that unconscious processing of VPPs during the utterance retroacts on thoughts is examined.

Supervenience, Materialism, and Skepticism: Critiquing Some Key Epistemological Underpinnings of Chalmers' Dualistic Philosophy of Mind

Kevin Meeker, Mobile / Alabama

David Chalmers argues against a materialistic theory of mind and for a type of property dualism. He contends, roughly, that facts about consciousness do not supervene on physical facts while nearly every other natural fact does. In this paper I shall

attack some of Chalmers' pivotal epistemological assumptions about the perceptual knowledge crucial for science, and show how they actually undermine his overall strategy.

Bonjour's A Priori Justification of Induction

John Meixner and Gary Fuller, Mount Pleasant / Michigan

Justifications of induction, and certainly *a priori* justifications of induction, are out of fashion these days. In a chapter of his recent book, *In Defense of Pure Reason* (1998), however, Lawrence Bonjour, the respected American epistemologist, bucks the trend and makes a valiant attempt to revive the latter. We shall sketch Bonjour's overall project and argue that it does not succeed. A crucial step in his inference commits the fallacy of false dilemma and Bonjour shows us no way of excluding the intermediate alternatives. Nor will couching his argument in terms of possible worlds improve matters.

An Argument Against Modal Knowledge – a Case Study in Epistemic Logic and the Ontology of Modality

Uwe Meixner, Regensburg

Modal knowledge presents an epistemological problem if it is to be nontrivial modal knowledge: knowledge of possibility or impossibility in the face of simple falsity, and knowledge of necessity or non-necessity in the face of simple truth. My talk presents and criticizes a sceptical argument that purports to show that there is no nontrivial modal knowledge. There will be an ontological lesson drawn from this: the existence-predicate does not mean one thing only, it means at least two different things. These meanings are best held apart by countenancing at least two existence-predicates.

Peirce and Wittgenstein on Doubt: A Comparison

Richard Menary, Hatfield

This paper argues that there is an affinity between Peirce and Wittgenstein's thought on the role of doubt in our epistemic practices. Peirce and Wittgenstein give us a 'broadly' pragmatic account of the role of doubt and by this I mean, they are interested in the difference doubt makes to our epistemic practices (I do not mean by this that Wittgenstein is part of a philosophical movement called pragmatism). Specifically, Peirce and Wittgenstein argue against the skeptical, or Cartesian, form of doubt that has dominated epistemological discussion. They deny that universal doubt is a genuine doubt; such a 'doubt' is idle, because it does not have any practical consequences for us. Genuine doubt must have a ground and of course there is no rule that can determine whether a ground for doubt is genuine in all circumstances. Doubts occur in a context, with all our prejudices and beliefs in place.

Unthinkable Syndromes: Paradoxa of Relevance and Constraints on Diagnostic Categories

Arthur Merin, Konstanz

Judea Pearl argued that diagnostic categorial schemes in which syndrome indicator variables make symptom variables conditionally independent are motivated by computationally advantageous compositionality of evidence. This offers a rationale for the ubiquity of causal hierarchies in human categorization. But Pearl's hypothesis seems hard to test and does not offer intuitive guidance to individual category formers. We note that occurrence of formally possible paradoxa of evidential relevance would falsify the conditional independence and compositionality hypothesis. Inquiries with experts indeed suggest that such paradoxa

do not occur in real-life medical syndrome-symptom configurations and are not seriously imaginable in this domain. Indeed, they would disqualify syndromes as Reichenbach Common Causes of their symptoms.

A Gesture of Understanding: Wittgenstein, Moore, and “Therapy”

Thomas A. Meyer, Philadelphia

On Certainty records Wittgenstein's examination of Moore's discussion of epistemology and skepticism in a way that may trouble the currently competing interpretations of Hacker and Conant. Wittgenstein views the denial of grammatical propositions as a sign of a speaker's nonunderstanding, where Hacker views this as nonsensical; and Wittgenstein views the nonsensicality of Moore's apparent knowledge claims as only a prelude to the discovery of their sense, where Conant takes nonsense to be what Wittgenstein's philosophy seeks to throw away. These interpretations are particularly striking, though, in their inattention to the theme of understanding with which Wittgenstein pursues this examination. Understanding is what Moore risks losing, and what Wittgenstein works to sustain towards Moore, as Wittgenstein's assessment develops over the course of the text. *On Certainty* reveals the delicate position of understanding within Wittgenstein's later work, a position both Hacker and Conant may need more fully to acknowledge.

The Method of the *Tractatus*

Nikolay Milkov, Bielefeld

In the last years, a small but rapidly growing group of American philosophers tried to convince the world that almost eighty years of Tractarian studies rest on mistake: Starting with Russell and Ramsey, Wittgenstein's commentators neglected 6.54 which 'clearly states' that the propositions of this work are a plain nonsense. My task in this paper is to show that this thesis is mistaken, and that it is mistaken in an important way. Above all, the representatives of this group confuse the method (style) of the Tractarian theories with the method of their exposition. Further, I suggest a new interpretation of 6.54 which differs from both that of this group, as well as from that of Peter Hacker: Wittgenstein's main problem in the *Tractatus* was the advancing of a content-less (intuitive) Conceptual Notation and of instructions how to use it. Once we have mastered these two, we must throw them away.

Bayesianism versus Scientific Realism

Peter Milne, Edinburgh

Scientific realism holds that we have good reason to regard our current best scientific theories as approximately true. Faced with the problem of underdetermination of theory by empirical evidence, in particular, with a choice between alternative theories that accommodate the data of observation and experiment equally well, the scientific realist takes that which makes for the bestness of our current best theories, not just their empirical adequacy, as evidence for their (approximate) truth. Possession of theoretical virtues becomes an evidential consideration. I argue that the subjectivist Bayesian methodologist cannot model this appeal to possession of theoretical virtues as confirmatory evidence. (I take for granted the Bayesian positive relevance account of confirmation; the problem posed does not depend on the choice of a measure of confirmation.)

The Bayesian faces three challenges in accommodating "non-empirical evidence", not of equal weight: the non-empirical nature of the evidence; the appeal to theoretical virtues in fixing prior probabilities/initial degrees of belief; the nature of theoretical virtues (as characterised by non-Bayesian methodologists). The problem of non-empirical evidence bears some resemblance to the problem of old evidence, another stick sometimes used to beat Bayesians with, but is less tractable. A final (methodological) question: might it be a virtue of Bayesianism that it cannot accommodate an evidential role for theoretical virtues?

Is Explaining Intuition Compatible with Trusting It?

Nenad Miščević, Maribor – Budapest

Naturalistic causal explanation of our reason- and intuition-based beliefs is compatible with their full rational justifiedness. This view is argued here against the anti-naturalist, anti-explanationist line (from Kant to T. Nagel, J. Lear, J. Pust and others). The line goes like this: (1) We have intuitional or reason-based knowledge R. (2) Rational certainty and justifiedness are essential for R. (3) Causal explanation shows that R cannot have these features; therefore, (4) Causal explanation undermines R. (5). Since causal explanation depends on R, it undermines itself by undermining R. You can either explain intuitions or justify them, but not both.

The paper attacks premise (3) of the anti-explanationist line arguing that explanation of intuitions does not eliminate their essential features. It briefly sketches a justificational structure that should be acceptable to both parties in the dispute, and shows that giving a causal explanation of beliefs does not collide with justifying them.

On Possible Relations between Physics and Theology

Peter Mittelstaedt, Cologne

We investigate the problem whether physics – which is understood here as the most general and most abstract field in science – can lead to questions which cannot be answered within the methodological framework of physics alone and which could perhaps be answered in the context of theology. Many prominent scientists of the 20th century, e.g. Einstein, Jordan, Weinberg, and Hawking have seriously discussed this conjecture.

The question whether physics leads to problems which cannot be solved by means of physics alone will be investigated here first for classical mechanics, in particular with respect to the problem of a complete determinism in the sense of Laplace and its refutation in the 20th century. Second we discuss quantum mechanics with respect to the uncertainty relation, the problem of objectification and the complete loss of classical determinism and its replacement by statistical causality. Third we consider relativity, in particular relativistic quantum cosmology. Here we are confronted with the problem of the origin of the universe, the big bang and the problem of the *creatio ex nihilo*. It was argued very often by physicists and philosophers of science that for a complete explanation of this process a creator of the universe must be presupposed.

We will treat these problems on three different levels. First on the level of single phenomena we raise the question whether there are individual events which violate well confirmed laws of nature. Second on the level of mathematically formulated theories like classical mechanics or quantum mechanics we argue that the violation of a single law could violate the entire theory. Third on the very abstract level of laws of nature we ask why the well known laws hold in nature and not alternative ones. On each level we ask whether there are problems which cannot be solved by means of physics alone and which offer perhaps the possibility of a theological explanation.

"How to Avoid Arbitrariness." Twenty-Five Philosophical Guidelines

Josef Mitterer, Klagenfurt

Arbitrariness is probably the most dangerous enemy of present-day philosophy. Suspects include relativists, epistemological anarchists, (de)constructivists and postmodern philosophers in general.

Yet even leading representatives of the philosophical enterprise offer little advice to newcomers on how to stay within the safe boundaries of truth-oriented philosophy. The paper tries to serve the purpose.

Husserlian Aspects of Wittgenstein's Middle Period

Matthew R. Morgan, Pittsburgh

Wittgenstein's used the term "phenomenology" near the apex of Husserl's phenomenological movement. Wittgenstein's 'middle period' can be better understood in light of his treatment of phenomenological concerns. His use of phenomenology is similar to Husserl's, including its adoption of anti-psychologism, his emphasis on a grammatical description of immediate experience, his insistence that 'primary' descriptions are not found in physics, and his use of intentionality. The simplest explanation is that Wittgenstein was influenced by Husserl in a significant fashion.

The Ladder and the Scaffolding: Wittgenstein's Nonsensical Bounds of Sense

Danièle Moyal-Sharrock, Norwich

In this paper, I attempt to clarify Wittgenstein's view of nonsense, and show that it allows for a consistent, plausible and nonself-refuting reading of the *Tractatus*. This new reading rejects both the so-called *therapeutic* (or New Wittgensteinian) reading and the *metaphysical* reading. Max Black got it right when he saw the Tractarian propositions as formal propositions, but *On Certainty* allows us (in retrospect) to situate them more precisely: precursors of grammatical propositions, not part of the language-game, not endowed with sense, but enabling it – they form a ladder or a scaffolding from which to *make* sense. Tractarian propositions do not transgress the bounds of sense, as Peter Hacker believes they do; they *are* the bounds of sense (at least Wittgenstein's version of them at the time). Their being characterised as nonsense by Wittgenstein, far from precluding their regulatory function, confirms it. I contend that a unilateral, and restricted (in the sense of judgmental), conception of Wittgensteinian nonsense is responsible for many misreadings of Wittgenstein, and especially for misreadings of the *Tractatus*. I take particular issue with Peter Hacker's judgmental interpretation of Wittgensteinian nonsense and go on to delineate my reading of the *Tractatus* which I call, anachronistically, the *grammatical* reading.

Plädoyer für den transzendentalen Rekurs in der religiösen Epistemologie

Klaus Müller, Münster

Wer Begründungsaufgaben zum Pflichtenkatalog religiöser Epistemologie zählt, muss sich notwendig der Frage transzendentalen Denkens in der Theologie stellen. Die dabei mittlerweile epistemisch relevanten Standards lassen sich mit den von Karl Rahner als *dem* Repräsentanten dieser Denkform bereit gestellten Mitteln nicht mehr erfüllen. Das hat seinen Grund darin, dass eine religiöse Epistemologie heute (anders als Rahner) durch einen modifizierten *linguistic turn* hindurch gegangen sein muss, aber sich genauso der Herausforderungen des medial die philosophische Welt- und Selbstbeschreibung bestimmenden *iconic turn* und der durch ihn virulenten Frage des Verhältnisses von Wahrheit und Fiktionalität zu stellen hat. Stabiler Anhalt für die Einlösung dieser komplexen Aufgabe lässt sich durch ein subjekttheoretisch ansetzendes Konzept finden, das zugleich gezielt Anschluss an theoretische Ressourcen sucht, die bereits Kant mit dem Titel einer *Transzendentalen Theologie* verbindet.

Some Further Remarks on the "I"

Volker A. Munz, Graz

The paper argues that Wittgenstein's discussion of first person statements involves a semantic ambiguity with respect to the use of "I". This implies, it seems, that the question whether "I" is a referring expression cannot be answered without considering the particular context in which it is applied. Whereas in some cases "I" might refer to an individual, the metaphysical use of the first person pronoun cannot be justified by pointing to a mental substance as its meaning, independent of the question whether such an entity really exists.

Gewißheit und Glaube bei Wittgenstein

Karl Nähr, Wien

In „Über Gewißheit“ erörtert Wittgenstein menschliches Wissen, welches vom vagen Vermuten bis zum absolut feststehenden, zweifelsfreien Wissen reicht. Religiöser Glaube und, damit verwandt, ideologische Positionen, werden nicht ausdrücklich behandelt, kaum gestreift. Vorliegende Arbeit versucht, Wittgensteins Stellung zu jener anderen Gewißheit, dem religiösen Glauben, aufzuspüren.

On Life and Language: *Limit, Context and Belief* in Wittgenstein and Ortega y Gasset

José Navarro, València

Despite both thinkers belonging to the tragic generation of 1914, Ludwig Wittgenstein (1888-1951) and José Ortega y Gasset (1883-1955) never actually met in their lives or in their texts (neither those they wrote nor those they read). Coming from very separate philosophical traditions – the logical atomism of Wittgenstein and the neo-Kantianism and phenomenology of Ortega – the works of these two philosophers nevertheless show latent conceptual affinities. We shall limit ourselves to suggesting three possible conceptual keys: *limit*, *context* and *belief*. We shall then finally take Wittgenstein's distinction between *sagen* and *zeigen* in the light of the difference Ortega highlights between *talking* and *saying*, reflecting upon the limits of language and the meaning each thinker gives to silence.

On Virtuously Attaining Truth

Bruno Niederbacher, Innsbruck

Recently, Linda Zagzebski developed an account of cognizers as agents. Knowledge is thought of as the result of virtuous agency. Zagzebski claims that her explication of the concept of knowledge is able to exclude Gettier cases from being knowledge. In Gettier cases one reaches a belief because of one's intellectually virtuous motivations and activities, but one does not reach the truth *because* of these features of the cognitive situation. Ernest Sosa uses similar wordings: "What we prefer is the deed of true believing, where not only the believing but also its truth is attributable to the agent as his or her own doing."

I want to address two questions: First, what is meant by the phrase "attaining the truth"? Secondly, what is meant by the phrase "attaining the truth because of virtuous motivations and procedures"? My suspicion is that no adequate account of the because-of-relation can be found. I will try to explain why this is so and what it is that leads to the idea of a causal connection between the virtuous motivation and activities and the truth of the belief.

Kierkegaard without "Leap of Faith"

Mariele Nientied, Berlin

A check of the computer version of Søren Kierkegaard's *Samlede Værker* has the surprising result, that the famous "leap of faith" does not occur even once in the published writings. It has, however, been the most influential phrase and provoked scholars to vilify Kierkegaard as a fideist, irrationalist, decisionist, voluntarist, misologist etc. Focussing on the crucial figure of the paradox, my paper re-discusses the difference between knowledge and faith in Kierkegaard's thinking in order to show, in how far the prevailing labels, -isms and charges are misguided.

„Wenn das Wahre das Begründete ist, dann ist der Grund nicht wahr, noch falsch.“ Zum epistemischen Status religiöser Überzeugungen

Barbara Nowak, Köln

Which kind of epistemic status may be claimed by religious beliefs? Are they true, merely rational or is it impossible to justify them at all? On the one hand we realize the epistemic contamination of all our awareness, on the other hand human beings do not stop to search for truth. Analysing the conception of truth in the philosophy of Wittgenstein and Putnam, the author differentiates dissimilar levels in the speech of truth and tries to combine the legitimate claims of realistic as well as antirealistic concepts. By combining some insights of the later Wittgenstein and the latest Putnam the author emphasizes the need of a justification of religious beliefs without reference to any foundationalist framework.

Wittgenstein's Critique of Gödel's Incompleteness Results

Martin Ohmacht, Klagenfurt

"Don't treat your common sense like an umbrella. When you come into a room to philosophize, don't leave it outside but bring it in with you"
(Wittgenstein 1939 LFM Unit VI page 68)

It is often said that Gödel's famous theorem of 1931 is equal to the Cretian Liar, who says that everything that he says is a lie. But Gödel's result is only similar to this sophism and not equivalent to it.

When mathematicians deal with Gödel's theorem, then it is often the case that they become poetical or even emotional: some of them show a high esteem of it and others despise it. Wittgenstein sees the famous Liar as a useless language game which doesn't excite anybody.

Gödel's first incompleteness theorem shows us that in mathematics there are puzzles which have no solution at all and therefore in mathematics one should be very careful when one chooses a puzzle on which one wants to work.

Gödel's second incompleteness theorem deals with hidden contradictions – Wittgenstein shows a paradigmatic solution: he simply shrugs his shoulders on this problem and many mathematicians do so today as well.

Wittgenstein says than Gödel's results should not be treated as mathematical theorems, but as elements of the humanistic sciences. Wittgenstein sees them as something which should be worked on in a creative manner.

Worldhood Competence and Performance: The Site for Wittgenstein's Religious Language

Jerome Ikechukwu Okonkwo, Owerri / Nigeria

Religion and religious beliefs belong to the talk-entwined practices of Wittgenstein's writings. Wittgenstein is more concerned with 'doing religion' than the urge for any 'theory of religion'. The site of religious knowledge is found in the worldhood of explorable and followable social constructions of *'Weltbild'* and/or forms of life. Religion provides a focal modus of how we have been taught to 'go on' and see connections in our ecology of being. Human beings can go on in a worldhood only through the disciplines of competence and the implied practical performance within their given language and linguistic symbolic forms.

Holism and the Underlying Structure of Our Acceptance Criteria

Makmiller Martins Pedroso, Brasília

Quine, in his *Two Dogmas of Empiricism*, rejects the analytic/synthetic distinction and recommends a position that has been being labeled as 'holism'. My interest in this paper is to present a version of holism that is in many respects similar to the

Quinean version but is explicitly designed to shed some light on the way different regions of our thought relate. I try to derive this holism by the image of our practices that I believe Wittgenstein's argument concerning rule-following stimulates. The motivation for this more Wittgensteinian holism is to make explicit some features of our thinking that would otherwise be hidden. In particular, a holism in this spirit introduces an image where our different practices communicate much more than we would be prompt to admit at first sight. This, in turn, encourages us to suspect any attempt to take any of our practices in isolation from all the others.

On Wittgenstein's "One of the Most Fundamental Language Games"

Ahti-Veikko Pietarinen, Helsinki

The meaning of utterances may be understood as Wittgenstein's language games of "showing or telling what one sees", which Wittgenstein held to be "one of the most fundamental language games". I argue that they provide motivation for the use of games in relation to logic and semantics that some commentators have called for. One general implication is that the notions of saying and showing converge in his late philosophy.

Does Emergence Help in Defending Religious Belief?

Sami Pihlström, Helsinki

This paper criticizes attempts to defend (Christian) theism on emergentist grounds. While the concept of emergence has become relevant in philosophy of mind and science, its place in the epistemology of religious belief remains obscure. Some thinkers have argued that an emergentist, non-reductive physicalism can accommodate religious views of the soul and of divinity, but these arguments are found problematic. The epistemological problem concerning the relation between science and religion should, rather, be subordinated to a Wittgensteinian re-evaluation.

Probability Theories and the Justification of Theism

Agnaldo Cuoco Portugal, Brasília

In the present paper I intend to analyse, criticise and suggest an alternative to Richard Swinburne's use of Bayes's theorem to justify the belief that there is a God. Swinburne's epistemology of theism employs the probability calculus, particularly Bayes's theorem to discuss the rationality of theistic belief.

My proposal attempts to keep the probabilistic approach to the subject. However, it works with an intersubjective theory of probability so that the prior probability of theism is not defined according to purportedly neutral and universal criteria, but given the particular background of the main parties involved. Although the naturalist will give to theism a much lower prior than the theist, the matter can in principle still be resolved through argument given some conditions that will be discussed in the paper.

Justification in Context

Matjaž Potrč, Ljubljana

Determining knowledge happens by indexically attuned justification. One may also say that knowledge comes without justification if standards for knowledge are measured by fancy requirements. A lower setting of scores brings justification back. Epistemic responsibility requires attuning to context. Structures of epistemic justification are extended from these resting on exceptionless general rules to the ones involving generalities with exceptions and further to those proceeding from particular contextual cases. How can justification in the context really work? Discussion involves the last two manners of how to systematize the

structure of justification. The first of these involves general patterns and thus normative authority of the general and the second builds on particular contexts. The structure of justification proposed by this last one complies with accommodation requirements for a realistic account of knowledge.

Wittgensteins Kritik an Gödel und das versteckte tertium non datur

Esther Ramharter, Wien

Ausgehend von einer skizzenhaften Rekonstruktion der Kritik Wittgensteins an Gödels Resultaten versuche ich Wittgensteins Verhältnis zum tertium non datur als gebrochenes aufzuweisen. Das tertium non datur verhilft sich gegen Wittgensteins Skepsis manchmal selbst zu seinem Recht, zumal z.B. ein von Wittgenstein unterstelltes Grundverständnis von Mathematik lautet: In der Mathematik muss alles entweder beweisbar oder widerlegbar ist. Wittgenstein attackiert also die Ergebnisse Gödels, indem er ihre Falschheit zur sprachanalytischen *conditio sine qua non* macht.

Bayes' and Fisher's Conceptions of Statistic in the Context of Empirical Paradigm

Vladimir Reznikov, Nowosibirsk

The conceptions of Bayes and Neyman-Pierson are considered in methodological literature as irreconcilable opponents as for their goals, tasks, and methods of solving statistical problems [1-3]. This article demonstrates that in some respects important for the statistical practice the methodological principles of the conceptions of Bayes (BC) and Fisher (FC), the last is ideologically close to Neyman- Pierson, reveal the similarity in positions. As an alternative to these directions of investigations an empirical conception is proposed.

The General Will, Group Decision Theory, and Indeterminacy

Mathias Risse, Cambridge / MA

Suppose group deliberation ends without unanimity. Is there a theory of group decision making that specifies for any set of circumstances a uniquely most reasonable decision rule? If not, some people will be "losers" though they would not have been had another, equally reasonable rule been adopted. I argue that this uniqueness claim is false by showing that for neither preference aggregation nor Bayesian aggregation does there exist a uniquely most reasonable decision rule.

Analogical Predictions

Jan Willem Romeyn, Groningen

This paper deals with exchangeable analogical predictions, and proposes a Bayesian model for such predictions. The paper first discerns two kinds of analogical predictions, based on similarity of individuals and of types respectively. It then introduces a Bayesian framework that employs hypotheses for making predictions. This framework is used to describe predictions based on the similarity of individuals, and further relates exchangeable predictions with a specific partition of hypotheses on types. Exchangeable predictions based on type similarity are determined by prior probabilities over the partition, but the partition obstructs the control over the similarity relations. Finally the paper develops a model for exchangeable predictions based on type similarity, which employs hypotheses on similarity between individuals, thereby offering a better control over the similarity relations.

Troubles for Truth-Tracking: A New Look at some Old Scenarios

Jay F. Rosenberg, Chapel Hill

Robert Nozick's well-known "truth-tracking" account of knowledge is predicated on the idea that "knowledge is a particular way of being connected to the world". A person's belief constitutes knowledge if it is both factually and counterfactually "sensitive to the truth", staying in step with it across suitably "close" possible worlds. In its full-dress version, however, the account is relativized to "methods or ways of coming to believe", and that turns out to cause various troubles. The notion of a way or method can be interpreted either "externally", in terms of such traditional modes of justification as perception, memory, testimony and inference, or "internally", entirely in terms of experiential contents. I explore the implications of both readings for a series of familiar skeptical, Gettier, and "defeater" scenarios and conclude that neither yields an acceptable account of knowledge. Where they can be applied, Nozick's counterfactual conditions often carry unwelcome implications regarding whether to ascribe or to deny knowledge, but sometimes their implications cannot be evaluated at all, since it turns out to be impossible to hold the method or way of coming to believe fixed in close possible worlds.

Nozick's attitude toward such troubles is typically casual and conciliatory, but I suggest that they are symptomatic of a fundamentally mistaken approach to giving an account of knowledge. I conclude by sketching an alternative strategy for assessing knowledge ascriptions in which the central question becomes, not how the believer is connected to the world, actually or subjunctively, but rather whether, considered in light of *our* information regarding *his* epistemic situation, he is justified in his belief in the sense of having done everything that he ought to have done in order to be epistemically entitled to it. I argue that this *normative perspectival* account of knowledge does an intuitively better job of classifying and elucidating all of the old scenarios.

Über Raum und Zeit, deren Wesen, Entstehen und Vergehen

Harald Rüdiger, Innsbruck

Raum und Zeit dürfen nicht als etwas an sich bestehendes, als etwas gegebenes betrachtet werden. Es gilt zu klären, wie wir zu diesen Begriffen gekommen sind, oder noch weiter gehend: Was muss es überhaupt geben, damit wir die Erfahrungen machen können, aus denen wir unser Konzept von Raum und Zeit gewinnen? Es ist vor allem die Veränderung, denn: „Wenn es ein vorher und nachher ... gibt, so ist es das, was wir Zeit nennen.“ Hierbei geht es vor allem um die Veränderung des Geistes, die uns ein Sprechen von Raum und Zeit ermöglicht. Denn die „Wirklichkeit an sich“ ist weder räumlich noch zeitlich. Daraus, dass es keinen Raum und Zeit ohne Geist geben kann, folgt nicht, dass dieser selbst, vor allem da seine eigentliche Natur in eine andere Richtung zu deuten scheint, notwendigerweise mit Raum und Zeit verbunden sein muss.

Reality as relational – Tractarian ontology and the Vienna Circle

Edmund Runggaldier, Innsbruck

Has Cosmology Advanced in Recent Years?

Saurabh Sanatani, Vienna

Starting with Einstein's General Theory of Relativity (1915) and the ever growing accumulation of astronomical data from land based and orbiting telescopes, our understanding of the universe has vastly advanced. Yet the the fundamental philosophical questions of cosmology remain unanswered. Are space and time finite or infinite? Has the universe a beginning and an end? Is there a purpose, design or meaning in the scheme of things (teleology)?

Recent observation of very remote galaxies upto 12 billion light years away, and the current estimate that the universe contains over 100 billion galaxies, each with many billions of stars, present us a picture impossible to visualize and reminds us of the limits of human cognitive power. Philosophy, though not advancing in the sense of scientific cosmology, can here lay bare the source of the mystery and cure our disquiet reminding us of Wittgenstein's statement about the therapeutic use of philosophy. Philosophy according to Wittgenstein is wholly distinct from science, philosophy only clarifies questions and does not contribute to the advance of a science like astronomy or cosmology.

Wittgenstein and the Possibility of Religious Belief

Patricia Sayre, Notre Dame

This paper considers the claim that religious belief, in an age such as ours, is no longer a live option. Following a brief orientation to Wittgenstein's approach to religious belief, I turn to Brian Clack's provocative suggestion that the upshot of Wittgenstein's work is an 'apocalyptic atheism.' I then consider Soren Kierkegaard's remarks on the possibilities for belief in the present age. Doing so provides a perspective that takes seriously Clack's concerns, but allows us to draw a rather different moral from Wittgenstein's reflections on religion.

Judgement and Certainty

Maria van der Schaar, Leiden

Concerning knowledge, three notions of certainty may be distinguished: objective certainty, where the judger possesses an (epistemic) ground for his judgement; subjective certainty, when the judger is convinced of (the correctness of) a judgement; and absolute certainty, that is, the judgement's exclusion from error. Wittgenstein's notion of certainty as set out in *On Certainty* is affiliated to, yet significantly different from these epistemic notions of certainty. It is non-epistemic, while prejudgemental. The aim of this paper is to elucidate Wittgenstein's notion of certainty by contrasting it with the three above epistemic notions.

Zur Eigenart religiöser Überzeugungen

Thomas Schärfl, Münster

In a special sense convictions are different from mere beliefs or from knowledge. Convictions play an important role in our conscious life. It is the task of a transcendental reflection to bring light into the architecture of convictions in regard to the pictures of ourselves and of the world we live in. As a consequence religious belief has to be treated as a conviction within the transcendental architecture of convictions. The relationship between religious belief and reason has to be constructed in an immediate way reviewing the necessary conditions of having convictions: freedom and authenticity.

(Presentation in German / Vortrag in deutscher Sprache)

Gott wahrnehmen. William Alstons Epistemologie religiöser Überzeugungen

Thomas M. Schmidt, Frankfurt

In der religionsphilosophischen Diskussion der Gegenwart verstärkt sich die Tendenz, eine realistische Deutung von Religion zu favorisieren. Vor diesem Hintergrund ist William Alstons einflussreiche Theorie der Rechtfertigung religiöser Überzeugungen anzusiedeln. Die Unterstellung der Möglichkeit einer direkten Wahrnehmung der Realität Gottes besitzt für Alston eine unverzichtbare Bedeutung für die Rechtfertigung der Rationalität religiöser Überzeugungen. Gott ist dem Bewusstsein unmittelbar und direkt gegeben wie Objekte der Umwelt in der sinnlichen Wahrnehmung. Diese Konzeption eines direkten Realismus der Wahrnehmung Gottes muss gegen die Standardkritik am „Mythos des Gegebenen“ (Sellars) verteidigt werden, wonach Perzeptionen immer begrifflich bzw. propositional strukturiert sind. Ohne die Zuschreibung von Eigenschaften droht die direkte Wahrnehmung Gottes reduziert zu werden auf das reine Gefühl der Gewissheit einer unmittelbaren Einheit des wahrnehmenden Subjekts mit einem göttlichen Objekt. Die Forderung nach einer begrifflich vermittelten Rechtfertigung religiöser Überzeugungen folgt gerade aus jener praktischen Rationalität, die nach Alston die Zuverlässigkeit religiöser doxastischer Praxis rechtfertigt.

Is Gettier's First Example Flawed?

Christoph Schmidt-Petri, Konstanz

This paper challenges the first Gettier counterexample to the tripartite account of knowledge. Noting that 'the man who will get the job' is a description and invoking Donnellan's distinction between their 'referential' and 'attributive' uses, I argue that Smith does not actually believe that the man who will get the job has ten coins in his pocket. Smith's ignorance about who will get the job shows that the belief cannot be understood referentially, his ignorance of the coins in his pocket shows that it cannot be understood attributively.

Der Begriff der religiösen Erfahrung bei William James und seine Weiterentwicklung nach Wittgenstein

Hans Julius Schneider, Potsdam

James' Buch über ‚Die Vielfalt religiöser Erfahrungen‘ (James 1979) ist, wie Charles Taylor (Taylor 2002) jüngst bemerkt hat, für unsere empiristisch orientierte Zeit noch immer attraktiv. Die vorliegende Untersuchung versucht, auf der Basis der von ihm erarbeiteten Phänomenologie zu einem auch heute überzeugenden Begriff von ‚religiöser Erfahrung‘ zu kommen. James' eigene philosophische Interpretation seines Materials wird dagegen ersetzt durch eine neue Deutung im Lichte des späten Wittgenstein. Genauer: Die Verwurzelung religiösen Sprechens in einer zugehörigen Praxis (in der Artikulation von Erfahrungen, die eine tiefgreifende Bedeutung für das Leben der Betroffenen haben), soll im Sinne einer kriterialen Semantik als hinreichend für die Bedeutungssicherung dieses Sprechens erwiesen werden, mit der Folge, dass James' referenzsemantisch verstandener ‚Überglaube‘ an die kausale Wirksamkeit einer transzendenten Welt entfällt. In seinem vermeintlichen transzendenten Bezug wird das religiöse Sprechen dadurch gegenstandslos, ohne dass es gegenstandslos im Sinne von ‚irrelevant‘ würde.

(Presentation in English / Vortrag in englischer Sprache)

Induction as a Universal Cognitive Strategy: On a New Type of Epistemic Justification

Gerhard Schurz, Düsseldorf

Hans Reichenbach proposed to justify inductive inference with help of the following decision-theoretic dominance argument: with respect to the goal of approximating the frequency limit in the limit, there exists no possible world in which induction is inferior to other competing methods, but there exist at least some worlds in which induction is superior. However, the ability to approximate the frequency limit is practically not very useful, because we never know how close to the limit we actually are. What is practically significant is our success in true predictions, and in this respect alternative methods such as clairvoyants can be much more successful than the Reichenbach straight rule inductivist.

In my approach I assume that the goal of the prediction game is maximal predictive success. In the simplest case, the prediction game consists of a discrete infinite sequence $\langle \pm E(i) : i \in \omega \rangle$ of a dichotomic event E and a finite number of players who's task is to predict, at each time point n , whether $E(n+1)$ or $\neg E(n+1)$ will be true. The object inductivist OI predicts according to the Reichenbach combination of straight rule and simple rule. There are various 'alternative' players A_i such as clairvoyants etc. who predict with whatever success you wish. Most important for me is the so-called meta-inductivist MI, who predicts what the so far predictively most successful player predicts. Under the assumption that the success frequencies of all players converge I can show that the meta-inductivist is indeed in a decision-theoretic dominance situation. In situations of conspiracy in which the successes of the players constantly oscillate I could not derive analytic theorems, but I have performed computer simulations which seem to corroborate the same thesis.

My analysis provides a new account of epistemic justification. An epistemic strategy is called cognitively universal if it has the following ability to learn: whenever the strategy is confronted with a so far better strategy, it can imitate the success of this strategy (it can learn from it). Hence, if a strategy is cognitively universal, it always has a maximal success expectation value among all available strategies. What my account attempts to show is that induction is a cognitively universal prediction strategy. In the end of the talk I sketch some possible applications of justification-by-cognitive-universality to other fields of epistemology.

Bayesian Arguments for Weak Foundationalism

Gerhard Schurz, Düsseldorf

1. *Arguments based on (Jeffrey) conditionalization:*

1.1 *Bayesian conditionalization requires epistemic priority of evidence:* The reason why in Bayesian conditionalization one never resolves the probability conflict by resetting the new probability value of the 'evidence' to the previous one is that one assumes an epistemic priority of evidence or input statements.

1.2 *Bayesian conditionalization requires objective and causally supported conditional probabilities:* The reason why one assumes that conditional probabilities in one direction (but not in both) are stable under new incoming evidence is that these probabilities are assumed to be objective and causally supported event-type probabilities.

2. *Bayesian arguments for non-circularity:* Within the same framework of Bayesian conditionalization I show that there cannot exist (completely) circular justification. However, there may exist partially circular justification.

3. *Bayesian arguments against extreme coherentism:* I argue that for each maximally internally coherent belief set there exists a isomorphic belief set which is equally coherent w.r.t. to a corresponding isomorphic probability function, where the isomorphism maps atomic subformulas into their negations.

From Belief to Facts in Evolutionary Theory

Peter Schuster, Vienna

Initiated by Charles Darwin's famous book on the 'Origin of Species' the theory of biological evolution originated in the middle of the nineteenth century and was enthusiastically accepted by a great number of scientists but at the same time instantaneously confronted with strong opposition by the Church and other parts of the scientific community. Religious people saw a fundamental conflict between the biblical act of creation and evolutionary theory, which is still alive in parts of the United States. The religious opposition in Europe grew even stronger when man was integrated in the evolutionary concept in Darwin's 'On the Descent of Man'. A heavy dispute started around the question whether evolutionary change is gradual and slow, as stated by the evolutionists, or occurs stepwise and triggered externally by some catastrophic events. In science the opponents of Darwin's principle of evolutionary optimization through variation and selection raised the claim that this concept of evolution is based merely on a tautology, it is not falsifiable, it allows only for explanations *a posteriori*, and thus it cannot make predictions. This criticism has been upheld against evolutionary biology for very long time too and even very famous philosophers like Sir Karl Popper considered Darwin's theory as non-scientific therefore.

More than one hundred sixty years after the 'Origin', evolutionary theory has changed its appearance entirely: (i) The mechanism of inheritance, completely unknown and wrongly guessed by Charles Darwin, is now fairly well understood, (ii) As chemistry has been rooted in physics by quantum mechanics in the first half of twentieth century, biology has been tied into chemistry by the development of biochemistry, structural biology, and molecular genetics, and the processes going on in cells and organisms are now seen from a completely new chemical perspective, (iii) Darwinian optimization was found to occur also in cell-free molecular systems where it can be studied in great detail by the same techniques as commonly used in physics and chemistry, (iv) Darwin's mechanism was found to be only one of several principles that determine the course of biological evolution and macroscopic evolution is seen now as a exceedingly complex overlay of many influences, and (v) Biological evolution comprises epochs of gradual development as well as instances of punctuation. In the lecture an overview of the current state of the art in understanding biological evolution from a molecular perspective will be given.

Wittgenstein in Berlin

Monika Seekircher, Innsbruck

In diesem Aufsatz werden die möglichen Gründe für Wittgensteins Maschinenbaustudium an der Technischen Hochschule in Berlin näher betrachtet, wobei vielfältige Bezüge der Familie Wittgenstein zur Technik und zu Berlin aufgezeigt werden. Auch auf Wittgensteins – allerdings eher spärlich dokumentierte – Beziehungen in Berlin wird hier kurz eingegangen. Abschließend wird ein Zusammenhang zwischen Wittgensteins ingenieurwissenschaftlichen Studien und seiner Abbildtheorie der Sprache dargestellt und somit gezeigt, dass sich seine Beschäftigung mit der Technik auch in seiner Philosophie widerspiegelt.

Epistemic Faculties and Their Logic

Krister Segerberg, Uppsala

Modal logics claimed by logicians to formalise a concept of knowledge – S4 is the prime example – are often rejected by philosophers who point out that how unrealistic those claims are if the knowledge in question is that of a human being. Logicians will then, perhaps, defend their logics by suggesting that the latter are idealisations which, in principle, may be seen as limits to which any sufficiently comprehensive sequence of more realistic logics would have to converge.

In this paper I will try to discuss some ways of trying to make sense of those claims. In particular, I will ask what epistemic faculties an agent must possess in order that the logic of his or her or its knowledge be S4.

What our Rylean Ancestors Knew: More on Knowing How and Knowing That

Joseph Shieber, Easton / PA

In their recent article "Knowing How" (*The Journal of Philosophy* (2001): 411-44), Jason Stanley and Timothy Williamson deny that there is a fundamental distinction between knowing-how and knowing-that, claiming instead that knowledge-how is rather a form of knowledge-that. I contend that Stanley and Williamson are incorrect in rejecting the distinction between knowledge-how and knowledge-that. Our Rylean ancestors, and Ryle himself, had a genuine insight in recognizing knowing-how and knowing-that as distinct phenomena. This discussion will be divided into two sections. In section 1, I discuss some implications of what I take to be our naïve notion of knowing-that. In section 2, I turn to a defense of Ryle's argument in favor of the distinction between knowledge-how and knowledge-that against the criticisms leveled against it by Stanley and Williamson.

Aspekte philosophischer und religiöser Gewissheit bei Ludwig Wittgenstein

Ilse Somavilla, Innsbruck

In diesem Beitrag sollen Wittgensteins Reflexionen über philosophische und religiöse Gewissheit einander gegenübergestellt werden. Ausgehend von seiner Auseinandersetzung mit G.E. Moore's Verteidigung des sogenannten "common sense", untersucht Wittgenstein in zahlreichen Beispielen, inwiefern eine Äußerung wie "Ich weiß" als Wissen betrachtet werden kann. Dabei kommt er zu dem Schluß, daß Äußerungen solcherart im alltäglichen Sprachgebrauch als "Gewissheiten" akzeptiert werden können, die auf Erfahrungen, Annahmen und dergl. beruhen. Im Rahmen eines philosophischen Disputes erfordert ein Wissen objektiven Wahrheitsanspruchs jedoch eine exakte Begründung.

Trotzdem betont Wittgenstein, daß der Zweifel irgendwann zu einem Ende kommen müsse, da Sprachspiele nur auf der Basis von Sicherheit, nicht auf der von Unsicherheit möglich sind.

In religiöser Hinsicht spricht Wittgenstein von einem ähnlichen Gefühl der Sicherheit, das zwar rational nicht faßbar oder begründbar ist, sondern vielmehr von Gnade abhängig. Es läßt sich allenfalls anhand von persönlich erlebten Erfahrungen beschreiben, wie Wittgenstein in seinem Vortrag über Ethik darstellt. Das darin angeführte Beispiel absoluter Sicherheit ist eine Art mystische Erfahrung, kann jedoch, wie alle ethischen und religiösen Erfahrungen, nicht sinnvoll ausgedrückt werden.

Dreams and Self-Knowledge

Ernest Sosa, Providence / RI

We shall first consider an unexplored account of the nature of dreams, and then consider its rather surprising implications for skepticism and for epistemology more generally.

Religiöser Glaube und Zweifel

Klaus von Stosch, Köln

Die gemeinsame Basis von transzendentalphilosophischer Glaubensverantwortung und *reformed epistemology*, zwischen *foundationalism* und *anti-foundationalism* sowie zwischen römisch-katholischem Lehramt und Wittgensteinianern besteht darin, dass das letzte Ziel jeder Glaubensbegründung die Eliminierung des Zweifels sein muss. Dagegen versucht der Vf. - angeregt durch Überlegungen des späten Wittgenstein - zu zeigen, dass sowohl der intellektuelle als auch der existentielle Zweifel an religiösen Glaubenssätzen unaustilgbares Moment der Grammatik religiöser Rede ist. Erst wenn die weltbildinterne Verankerung des Zweifels im religiösen Glauben konstruktiv aufgenommen wird, ist rationale Glaubensverantwortung in überzeugender Weise möglich.

A Plausible Psychological Mechanism for Generating Bayesian Prior Probabilities

Patrick Suppes, Stanford

Logical and philosophical theories of truth have little to say about how the truth of ordinary sentences is computed in natural settings. The same can be said of the corresponding theories of probability. If I ask someone, "What is the probability of rain tomorrow afternoon in Kirchberg?", how does the person asked this question compute an answer? (Not everyone will agree it is a matter of computation, but this seems the only sensible way to talk about it, as I shall try to explain.) The mechanism I have in mind as an answer to this question is that of associative networks. Such networks, of which Hume is the Godfather, are suitable for giving a first approximation to how questions about the truth of particular utterances or the subjective probability of an event are computed, often swiftly and easily in a few hundred milliseconds. The closing remarks will speculate on how such associative computations may be physically realized in our brains.

Knowledge and Belief in Evolutionary Biology

Eörs Szathmáry, Budapest

In evolutionary biology we are faced with a pattern of observable organisms, populations and molecules, as well as some fossil findings. We can also analyze component processes (reproduction, development, replication, mutation, recombination, etc.) thought to be important for evolution. With microbes evolution is also 'directly' observable – in the realm of macroorganisms such an observation needs considerable luck. Equipped with our knowledge of patterns and processes of today we can infer about the grand generative process: that of evolution. We hypothesize about descent as well as the mechanism of evolution. During this we assume that "homogeneity of time" applies: i.e. forces had been qualitatively the same in the past as they are today. This generates hypotheses about certain evolutionary phenomena, such as speciation, the maintenance of sex, or the origin of the eukaryotic cell. The hypotheses predict patterns, and we can check whether these confirm to observable patterns – preferably including some that we have not analyzed before. Based on our knowledge and experience, we believe that this research strategy will be useful, even in cracking notoriously difficult problems such as the origin of the genetic code and natural language. While there is no guarantee for such success, it is worthwhile to bear in mind that the only working theory that account for complex adaptations in organisms is Darwin's theory of natural selection acting on populations.

Semantics and Ontology: On the Modal Structure of an Epistemic Theory of Meaning

Chiara Tabet, Rome

In this paper I shall confront three basic questions. First, the relevance of epistemic structures, as formalized and dealt with by current epistemic logics, for a general Theory of meaning. Here I acknowledge M. Dummett's idea that a systematic account of what is meaning of an arbitrary language subsystem must especially take into account the inferential components of meaning

itself. That is, an analysis of meaning comprehension processes, given in terms of epistemic logics and semantics for epistemic notions.

The second and third questions relate to the ontological and epistemological framework for this approach. Concerning the epistemological aspects of an epistemic theory of meaning, the question is: how epistemic logics can eventually account for the informative character of meaning comprehension processes. “Information” seems to be built in the very formal structure of epistemic processes, and should be exhibited in modal and possible-world semantics for propositional knowledge and belief. However, it is not yet clear what is e.g. a possible world. That is: how it can be defined semantically, other than by accessibility rules which merely define it by considering its set-theoretic relations with other sets-possible worlds. Therefore, it is not clear which is the epistemological *status* of propositional information contained in the structural aspects of possible world semantics. The problem here seems to be what kind of meaning one attributes to the modal notion of possibility, thus allowing semantical and syntactical selectors for possibilities. This is a typically Dummett-style problem.

The third question is linked with this epistemological problem, since it is its ontological counterpart. It concerns the *limits* of the logical space and of logical semantics for a of meaning. That is, it is concerned with the kind of structure described by inferential processes, thought, in a Fregean perspective, as pre-conditions of ostensional treatment of meaning itself. The second and third questions relate to some observations in Wittgenstein’s *Tractatus*. I shall also try to show how their behaviour limits the explicative power of some semantics for epistemic logics (Konolige’s and Levesque’s for knowledge and belief).

What Does Haack’s Double-Aspect Experientialism Give Us?

Konrad Talmont-Kaminski, Lublin

Sellars’ argument against The Given has set the scene for much of the discussion of the role of experience in justification. Susan Haack tries to avoid the objection presented by Sellars and to give experience a role in the justification of beliefs. Her approach is to put forward a double aspect theory of justification consisting of a logical/evaluative aspect and a causal aspect. Like other double aspect theories, her approach is led astray by the possibility of deviant causal chains. Her argument’s shortcomings, however, only help to underscore the false assumption behind Sellars’ original argument – that justification is purely logical in character. But, rather than arguing that justification is logical and causal, we are led toward a view that the character of justification, while essentially normative, is much richer than can be modelled by logic.

Group Knowledge

Raimo Tuomela, Helsinki

The main task of the present paper is to investigate the nature of collective knowledge and accordingly also to discuss the justification of group belief. The central kind of group knowledge investigated is normatively binding knowledge attributed to a social group. A group knows in this normative sense if its “operative” members (those authorized for decision making in the group) have collectively accepted on the basis of a joint reason a joint view for the group and are collectively committed to it in a normative sense, while the other group members are assumed to go along with this.

A distinction is made between natural knowledge and constitutive knowledge related to social (especially institutional) matters. In the case of the latter kind of knowledge, in contrast to the former kind, justification and the criteria of justification are purely social.

Kann etwas Rotes zugleich grün sein?

Andrej Ule, Ljubljana

Ich analysiere die „syntaktische“ Lösung Wittgensteins der apriorischen Farbensätze aus den späten zwanziger und dreißiger Jahren. Wittgenstein versuchte, den Farbensatz „Etwas kann nicht zugleich Grün und Rot sein“ als einen Scheinsatz darzustellen, der eine bestimmte syntaktische Unmöglichkeit ausdrückt, doch dieser Versuch ist nicht gelungen, denn man muß die apriorische Wahrheit des Farbensatzes dabei schon in irgendeiner Weise voraussetzen. Auch die Kritik Wittgensteins an der Deutung der Farbensätze bei Husserl stimmt nicht, denn Wittgenstein hat darin die logische und die apriorische (Un)möglichkeit der Farbenunterschiede gleichgesetzt. Viele andere Versuche der „analytischen“ Deutung dieses Satzes sind ebenso mißglückt.

Time before Time: How to Avoid the Antinomy of the Beginning and Eternity of the World

Rüdiger Vaas, Gießen

Immanuel Kant argued that it is possible to prove both that the world has a beginning and that it is eternal. As Kant believed he could overcome this "self-contradiction of reason" by the help of what he called "transcendental idealism", the question whether the cosmos exists forever or not has almost vanished in philosophical discussions. In the twentieth century, however, the puzzle became once again vital in the context of natural science, culminating in the controversy between Big Bang and Steady State models in physical cosmology. In recent years, it has reappeared in the framework of quantum cosmology, where, on the one hand, there are Instanton models that assume an absolute beginning of time, while other scenarios suppose that the Big Bang of our universe was only a transition from an earlier state, and that there are perhaps infinitely many such events. But Kant's First Antinomy makes the error of the excluded third option, i.e. it is not impossible that the universe could have both a beginning and an eternal past. If some kind of metaphysical realism is true, including an observer-independent and relational time, then a solution of the Antinomy is conceivable: It is based on the distinction between a microscopic and a macroscopic time scale. Only the latter is characterized by an asymmetry of nature under a reversal of time, i.e. the property of having a global (coarse-grained) evolution – an arrow of time. On the microscopic scale, however, only local, statistically distributed events without dynamical trends, i.e. a global time-evolution or an increase of entropy density, exist. Due to accidental fluctuations, universes can emerge out of such a state with microscopic time, but with an eternal, global macroscopic timelessness, and create a local beginning of our macroscopic time. This is not only a philosophical possibility but is already motivated by some (still speculative) theories of quantum gravity. This offers a middle course between the Scylla of a mysterious, secularized "creatio ex nihilo", and the Charybdis of an equally inexplicable eternity of the world.

Consequences of Logical Pluralism: Global and Local Aspects

Vladimir L. Vasyukov, Moscow

Is it true that there is one true logic? Nowadays a widespread assumption in contemporary philosophy of logic is that there is not one true logic, there are many. This point of view is known under the name of logical pluralism. Are these logics rivals or they live in one large happy family? Are there any consequences of the logical pluralism which are determined not by the choice of a single logical system but the logical pluralism as a whole?

The first-order classical logic is usually interpreted by means of models in such a way that an argument is valid if and only if in every model in which the premises are true, so is the conclusion. The collection of all sets, called the *universe* of sets, supplies us with all kinds of models we need in order to interpret our logic. So, the first-order classical logic is determined by the universe of sets (models).

Would it be true in case of non-classical logics? The answer is positive and we arrive at the pluralism of universes as a first consequence of logical pluralism. Whether or not every kind of non-classical logic needs its own kind of the universe of sets to provide the values of functions behave like truth values. And there is S4-valued universe, Heyting-valued universe, quantum-valued universe etc.

But this is not the only way to produce universes. Since from the formal point of view set theory is nothing but an elementary logical theory then changing the logical part we come to the construction of set theory with underlying non-classical logic. Then in the framework of this theory we can build a cumulative hierarchy of sets or even a respective algebra-valued universe. On the other hand, if we change logic then, as a consequence, the algebra of subsets in any set will be changed. If we change only our definitions of the operations on set then this can lead to the interpretation of the respective non-classical logic in given set. Thus, in classical universe we have an interpretation of non-classical logic. We can adopt in our classical universe as much non-classical logics as we need.

If we start from non-classical universe and then introduce classical set-theoretical operations then we obtain an interpretation of classical logic in non-classical universe. Repeating this procedure we arrive at a situation where in non-classical universe we have an interpretation of classical logic together with other logical systems.

Have we any mean at hand to verify whether our universe is classical or not? From the point of view of logical pluralism the answer will be negative. We can establish, at most, that there is one underlying (global) logic determining and determined by our universe while there are many (local) logics inhabiting universe which are not determined by it.

It seems that there is some philosophical background which lies in the depth of this problem. In Lvov-Warsaw School was current the point of view on the distinction between metaphysics and ontology which consists in that the former is the theory of what there is while the later is the theory of what is possible and of possibility of possible. In a sense, we can say, developing Wittgenstein, that global logic is underlying the metaphysics while local logics are underlying the ontology of our universe.

On Paradoxicality of Experience in Wittgenstein's "Later" Philosophy

Nuno Venturinha, Lisbon / Portugal

The aim of this paper is to inquire into a fundamental problem of the Philosophy of Knowledge, the *paradoxicality of experience*, in its intrinsic relation to *praxis*. "Later" Wittgenstein's thought presents significant elements susceptible to the display of several nuances of the "problematic complex" in question. Moreover it provides, from the analysis of various phenomena, an unavoidable resolutive possibility in contemporary philosophical panorama. This resolution, which is delineated through the "grammatical" investigation programme initiated in 1929, and extended until 1951, can lead, however, to a difficult situation: the *unsuitability to experience*, determined by the analytical development's reach. Then it will be possible to characterise the efficiency of Wittgensteinian "therapy", directing this "method" not only to the thematic circumscription we find in post-1929 texts, but also to an extension of these analyses, which has its origin in the "earlier" Wittgenstein.

Living in Fiction

Nehama Verbin, Beer-Sheva

In this paper, I examine fiction as a vehicle of various types of transformation. Relying on Kendall Walton, I argue that we characteristically participate in fictional worlds rather than merely entertain their possibility as observers, and that it is through participation in fictional worlds that we may come to feel, think or perceive ourselves and our world differently. The imagination rather than rational argumentation plays the dominant role in such transformations. This makes perspicuous the fact that imagining may suffice to convert one to faith. In other words, one need not believe in the historical truth of the biblical narratives in order to come to faith. It may suffice that she imagines them.

Can Program Explanations Save the Causal Efficacy of Beliefs?

Sven Walter, Saarbrücken

Frank Jackson and Philip Pettit offered the "program explanation account" in order to vindicate the causal relevance of mental states like beliefs. According to Jackson and Pettit, a property *F* of a cause-event *c* (for instance a mental property like the property of *being a belief about Paris*) can be causally relevant for an effect-event *e*'s having property *G* because "e had *G* because *c* had *F*" is an informative, non-redundant *program explanation*. If Jackson and Pettit's program explanation account succeeded, the causal relevance of beliefs would be vindicated and mental property epiphenomenalism would be avoided.

I will argue that no definition of causal relevance based on the notion of program explanations will vindicate our trust in the causal efficacy of beliefs and other mental states. If mental property epiphenomenalism is false, it cannot be because the program explanation account is correct.

Brandom, Sellars und der 'Mythos des Gegebenen'

Heinrich Watzka, Frankfurt

R. Brandoms originärer Beitrag liegt nicht auf dem Feld der Theorie des Wissens. Furore machte er mit dem wirklich zu Ende gedachten Ansatz einer *inferentiellen Semantik*, den er 1994 in *Making it Explicit* vorlegte. Er verkoppelt darin den Grundgedanken einer *inferentiellen* Gliederung propositionaler (begrifflicher) Gehalte mit der Idee einer *sozialen* Gliederung derjenigen Praktiken, mittels derer wir unsere Wissensansprüche argumentativ einlösen, indem wir sie in geeignete Inferenzen einbauen. Der semantische Inferentialismus läuft auf eine anti-fundationalistische Theorie des Wissens hinaus. Um dennoch Raum für basale, nichtinferentielle Meinungen zu schaffen, weicht Brandom auf verlässlichkeitsorientierte Überlegungen aus. Der Schritt in den epistemischen Externalismus ist jedoch schwer mit dem Internalismus in Bezug auf Rechtfertigung in Einklang zu bringen, der den kommunikativen Praktiken des Gebens und Verlangens von Gründen ihre Pointe verleiht. Im Folgenden möchte ich zuerst die Zwänge aufzeigen, die Brandom zu seiner Revision auf dem Gebiet der Theorie des Wissens führte, um dann (zweitens) die tiefer liegenden Gründe zu beleuchten, die zu dieser Revision nötigten und die man bei Sellars nachlesen

kann, um dann (drittens) eine Lösung vorzuschlagen, die sich der gemäßigten Spielart einer traditionelleren Denkrichtung, dem Fundationalismus, wie ihn beispielsweise R. Audi vertritt, annähert.

On the Cognition of Laws of Nature

Paul Weingartner, Salzburg

In this paper I shall discuss the problem of cognition of laws of nature on the following different levels of understanding:

- First level of understanding of laws of nature: the Greek Ideal of Science
- Second level: Space Time Invariance
- Third level: Dynamical Laws
- Fourth level: Statistical Laws
- Fifth level: Laws and Causality
- Sixth level: Chaotic Motion
- Seventh level: Initial conditions and Constants of Nature

Knowledge, Belief, and the *A Priori*

Christian Helmut Wenzel, Taiwan

This paper has two parts. In the first I give a brief historical account of the *a priori* and point out the central and problematic role of *Erfahrung überhaupt* in Kant's transcendental philosophy. In the second and main part I offer a criticism of Kripke's arguments for the contingent *a priori* and thereby question his radical separation of metaphysics and epistemology.

A Note on the Late Wittgenstein's Use of the Picture Concept

Peter K. Westergaard, Copenhagen

In his post-*Tractatus* writings, Wittgenstein continued to employ the analogy between the picture and the sentence. In 1936 he wrote: "The sentence as picture. And that is very pleasing, but [[d]er Satz als Bild. Und das ist recht schön, aber] there are still lifes, portraits, landscapes, depictions of mythology [...] maps, diagrams etc., etc." (MS 116, 223). This paper focusses on the uses of the picture concept in the late Wittgenstein and will emphasise in particular its new application in the description of religious language use.

Some Computational Constraints in Epistemic Logic

Timothy Williamson, Oxford

Some systems of modal logic, such as S5, which are often used as epistemic logics with the 'necessity' operator read as 'the agent knows that', are problematic as general epistemic logics for agents whose computational capacity does not exceed that of a Turing machine because they impose unwarranted constraints on the agent's theory of non-epistemic aspects of the world, for example by requiring the theory to be decidable rather than merely recursively axiomatizable. To generalize this idea, two constraints on an epistemic logic are formulated: *r.e. conservativeness*, that any recursively enumerable theory R in the sublanguage without the epistemic operator is conservatively extended by some recursively enumerable theory in the language with the epistemic operator which is permitted by the logic to be the agent's overall theory; the weaker requirement of *r.e. quasi-conservativeness* is similar except for applying only when R is consistent. The logic S5 is not even *r.e. quasi-conservative*; this result is generalized to many other modal logics. However, it is also proved that the modal logics S4, Grz and KDE are *r.e. quasi-conservative* and that K4, KE and the provability logic GLS are *r.e. conservative*. Finally, *r.e. conservativeness* and *r.e. quasi-conservativeness* are compared with related non-computational constraints. Such results make precise the widespread

intuitive idea that S4 is suitable as a logic of provability and that S5 is not, because if it is provable that p then it is provable that it is provable that p whereas (in accord with Gödel's second incompleteness theorem) it may be unprovable that p without being provable that it is unprovable that p. It will also be explained in what sense a wider class of modal logics can qualify as provability logics than those usually counted under that label (e.g. those with Löb's distinctive axiom). The crucial move is not to relax the property formal provability to informal provability but rather to relax the mode of presentation of the property of formal provability.

Wittgenstein and the Internalism-Externalism Dilemma

Maciej Witek, Zielona Góra

It can be said that Wittgenstein's Private Language Argument initiated the internalism-externalism dilemma. In one of its interpretations the argument is read as a criticism of methodological solipsism. Internalism, in turn, assumes that methodological solipsism is an adequate account of mental content. Therefore some externalists refer to Wittgenstein as their forerunner.

I argue, first, that the Private Language Argument does not support the claim of externalism that meanings are not in the head, even though it undermines methodological solipsism. I also claim that both internalism and externalism are not free from serious problems. Therefore we need a view that goes beyond the distinction in hand. To arrive at such a view I examine John Searle's account of mental content and argue that the real tension within the theory of content is between the first-person and the third-person point of view.

Scepticism, Certainty, Moore and Wittgenstein

Crispin Wright, St. Andrews

G.E Moore's "A Defence of Common Sense" was first published in 1929 and his "Proof of an External World" ten years later. Apparently Wittgenstein had a long-standing interest in these papers and in the last eighteen months of his life, stimulated by discussions with Norman Malcolm while his house-guest in Ithaca in 1949, he composed the notes we now have as *On Certainty*. My question here is whether Wittgenstein's last philosophical thoughts point to a principled and stable response to the issue at which Moore's papers had been directed—the issue of scepticism, and particularly scepticism about our knowledge of the material world. My eventual and hesitant answer will be: yes—though the development here will be inevitably sketchy. It will be focused upon one specific—though as disturbing as any, and very general—form of sceptical argument, which I shall begin by eliciting, ironically, from the consideration of something that was supposed to help—Moore's curious 'Proof' itself.

The Epistemology of Religion: The Need for Engagement

Linda Zagzebski, Oklahoma

In contemporary American religious epistemology there tends to be a lack of engagement between defenders of religious belief and their non-believing interlocutors. This is particularly noticeable in Alvin Plantinga's recent book, *Warranted Christian Belief*. Plantinga is understandably defensive, given the cultural context in which he is writing, but his approach leaves untouched the position of many reasonable critics. Plantinga distinguishes two kinds of rationality. What he means by internal rationality, which is closely allied with justification, is too easy to achieve, whereas what he means by external rationality is too hard. The latter is tightly connected with truth, thereby leaving very little to discuss. My proposal is that it is our business to be good epistemic agents. What that involves and when it is satisfied is something any philosopher can discuss whether or not they have any personal religious beliefs. There are a number of objections to religious or philosophical beliefs that need to be addressed by anyone with a commitment to a religion or a philosophy.

Some General Constraints on the Analysis of Knowledge and their Consequences for Warrant and for Substantive Accounts of Warrant

André Zdunek, Basel

Recent epistemology has become more theoretical in the sense that general aspects of any adequate analysis of knowledge or of some other vital epistemic concept have come into the focus of discussion. The most prominent example is presumably the internalism/externalism debate. From three general, as I claim uncontroversial, epistemic data general constraints for any adequate analysis of knowledge are derived. The data are (i) non-scepticism, (ii) the avoidance of Gettier counterexamples and (iii) fallibilism. The general consequences derived are (a) the possibility of warranted false beliefs, (b) the condition on warrant that if a warranted false belief were true, it would be non-accidentally true and (c) externalism for warrant, the externalist aspect being not truth because of (a). Substantive accounts of warrant may fit these conditions or may fail. It is argued that of the existing externalist accounts of warrant proper functionalism and epistemic virtue accounts fit best the results derived. Internalist accounts are inadequate because of consequence (c).

Deus sive atra

Christian Zelger, Schlanders

Der Artikel versucht zu zeigen, dass Schwarze Löcher als Objekte wissenschaftlicher Untersuchungen eine Reihe von Mängeln aufweisen. Ihre Eigenschaften sind als Interpretationen grundlegender physikalischer Theorien festgelegt, schließen aber gleichzeitig aus, dass sie und ihre Entwicklung im Rahmen eben dieser Theorien vollständig beschrieben werden können. An Hand von zwei Vergleichen wird gezeigt, dass einerseits im Allgemeinen anerkannte wissenschaftliche Methoden nicht immer auf Schwarze Löcher anwendbar sind und andererseits, dass Vieles von dem, was für Schwarze Löcher behauptet wird, genauso gut für Gott ausgesagt werden kann. Aktuelle Theorien belegen, dass sich einige Wissenschaftler der Problematik bewusst sind und deshalb mögliche Alternativen vorstellen.