



## Book Reviews

**Gaisi Takeuti**

**Proof Theory**

Dover Publications, New York 2013.

Proof theory is one of the four pillars of modern logic, together with model theory, recursion theory and set theory. Its central position is delineated by the fact that together with model theory, proof theory constitutes the so-called metamathematics, a philosophically imbued discipline designed to lay the foundations of mathematics on a philosophically sound set of principles. The importance of this quest for foundations is due to the paradoxes discovered when dealing with a common sense approach using comprehension, which shows that the simplest common sense approach, such as comprehension (i.e. the principle that states that for every formula there is a set of objects that satisfy the given formula), leads directly into paradox. In philosophy, this was yesterday's news, as it was known for millennia that simple theories have insurmountable problems with unwanted epiphenomena. Mathematics, for centuries, seemed immune to foundational problems, but paradoxes emerged, and the quest for foundations was wide open. A great accomplishment, which was actually a sideproduct of this foundational quest, is the discovery of the universal machine (the computer), and formed the modern world.

In this sense, proof theory carries the foundational studies aimed to circumvent the limitations set forth by Kurt Gödel in 1931. This became known as pure proof theory, whereas applied proof theory turned to applications of proof theoretic results to other areas, mostly in computer science and programming. During the early modern period, most logicians did specialize, but did not think of logic itself as divided in subdisciplines. Thus most textbooks were more or less general logic textbooks, and only during the seventies did some classical textbooks for the four subdisciplines

start to appear. Among others, these were the books by Chang and Keisler (1973.) *Model theory*, Shoenfield's *Degrees of Unsolvability* (1971.) Kunen's *Set Theory* (1980) and Takeuti's *Proof Theory* (1975.). For some of the disciplines (most notably set theory, which was thought of as somewhat different, and the approach there was, by symmetry, different than today), there were textbooks issued before, but only the books mentioned above became classic textbooks on the subjects, which made possible a new leap in the development of logic. Logic grew, and the time of great logicians able to make contributions in every subdiscipline of logic was decisively ended.

Gaisi Takeuti was Japan's most prominent logician, and studying under Kurt Gödel, he became one of the most important proof theorists. Takeuti beautifully defined proof theory in the first paragraph of his book as the formal philosophy of mathematics: "Mathematics is a collection of proofs. [...] Therefore, in investigating 'mathematics', a fruitful method is to formalize the proofs of mathematics and investigate the structure of these proofs. This is what proof theory is concerned with." This paragraph can be taken to represent the spirit of the whole book. The book itself had two editions, one in 1975, and one in 1987, and the current 2013 issue is the reissue of the 1987 edition. As proof theory is a highly diverse discipline, most textbooks do not cover the same topics. For example, Pohlers' book *Proof Theory* covers ordinal analysis of systems up to and a little bit over  $\Gamma_0$ , while Troelstra and Schwichtenberg (*Basic Proof Theory*) give much more emphasis on cut elimination. Takeuti's book actually does both but in less detail.

Takeuti's *Proof Theory* is divided in three parts, the first dealing with first order systems, the second with second order and finite order systems, while the third part deals with consistency proofs.

The first chapter of Takeuti's *Proof Theory* gives an introduction to first order logic, and from page 20 onwards Gentzen's proof of the cut elimination theorem is given. The method

used is the exact method used by Gentzen, so that readers unfamiliar with German can read Gentzen's original proof here, with no modifications added. Consequences of the completeness theorem are also explored.

The second chapter addresses Peano Arithmetic. This arithmetical theory (originally due to Dedekind, which Peano himself acknowledged) is the most commonly addressed axiomatic system for arithmetic, and is believed to be the closest formalization of arithmetic we know, since by Gödel's first incompleteness theorem it follows that there cannot be an axiomatisation of arithmetic—at least no one that could prove all the true statements and no false ones. The proof presented is the standard one of eliminating cuts by induction up to  $\varepsilon_0$ . This proof is covered in much detail over 45 pages. There is a small section on provable well-orderings, but only over a couple of pages.

The third chapter opens the second part of the book, covering second and higher order logic. Throughout this chapter, the main approach to second order logic is through limitations on V-complexes, i.e. allowable second order terms. Takeuti's conjecture from 1953, which states that cut is eliminable for second and higher order logic, is presented here as a central topic. Cut elimination is then proven for some weaker systems, where left- $\forall$  second order rule is allowed only for first order formulas, or for free second order variables. The stronger systems are explored, though the proof presented for cut elimination is a semantical one, since at that time an algorithmic proof was not yet discovered. Higher order logic is also included here, under the historical name of simple type theory, and the proof of cut elimination is given at once for all higher order logics. The next chapter deals with infinitary logic and gives a sketch of determinate logic.

Part three is divided into two chapters, the first one dealing in consistency proofs. Here the ordinal diagrams are explored, which are one of Takeuti's main contributions in logic, and a consistency proof of the  $\Pi_1^1$  comprehension system (a subsystem of second order arithmetic with comprehension limited to  $\Pi_1^1$  formulas) is given. This is another one of Takeuti's contributions proving via ordinal diagrams that this ordinal is  $\psi_0(\Omega_\omega)$  in the Buchholz notation. Obviously, this ordinal is above  $\Gamma_0$ , and (most probably) impredicative. It is a very strong result, since the Buchholz ordinal notational system make active use of negations, and as such is outside the limits of constructivism. This is somewhat disturbing, since, philosophically speaking, the whole endeavor of ordinal analysis from Gentzen

onwards has a strong constructivist feeling. It is also shown that this ordinal is the ordinal of the theory of finitely many iterated inductive definitions.

The next chapter dealing in applications of consistency proofs is rather short (around 30 pages) and discusses the provable well-orderings mentioned before and the  $\Pi_1^1$  comprehension axiom, together with the infinitary  $\omega$ -rules.

The great value of this book is also found in its appendix, where Takeuti called in for other views on proof theory, namely the view of Georg Kreisel and his "unwinding" program presented by Kreisel, the view of Schütte's school presented by Wolfram Pohlers, the growing program of reverse mathematics presented by Stephen G. Simpson, and a personal account of proof theory by Solomon Feferman. Even today these five approaches (the fifth being Takeuti's approach) dominate proof theory, and virtually every result can be classified as belonging to one of these schools.

**Sandro Skansi**

## Matthew C. Altman

### Kant and Applied Ethics

#### The Uses and Limits of Kant's Practical Philosophy

Wiley-Blackwell, West Sussex 2011

The book *Kant and Applied Ethics: The Uses and Limits of Kant's Practical Philosophy* of Matthew C. Altman is a true refreshment in the world of Kantian scholarship. It is a deep exegetical achievement in reading of Kant's thought and its actualisation for modern (bio)ethical problems at the same time. As it is noted in the title, the author tries to present and explain the modalities of connection between Kant and applied ethics. Even though it would be probably better to speak about bioethics, the author comes from Anglo-Saxon speaking area and thus he is naturally embedded in the context of "applied ethics". But the subtitle leaves no doubt about author's preoccupation: he truly brings in front of a reader an exhaustive and rigorous investigation of some limits of Kant's prac-

tical philosophy. This is clearly stated in the “Preface”: “The admittedly ambitious goal of this book is to look comprehensively at Kant’s moral philosophy as it relates to key debates in contemporary applied ethics.” (p. vi)

The first sentence of “Introduction” bluntly summarizes the answer of the subtitle (“Why Kant Now”): “It is ironic that Immanuel Kant’s ethical theory is so often accused of formalism, of being too abstract to be relevant for real-life decisions, and yet we appeal to Kantian concepts in almost every important debate in applied ethics.” (p. 1) The author transparently shows this on the example of ethics of research on human subjects, demonstrating that the whole debate from its historical sources (Nazi medical experiments and Tuskegee Syphilis Study) till the contemporary debates is completely ingrained in Kantian concepts. According to this he further summarizes the significance of Kant’s thought for contemporary (bio)ethics and connects these views with the motivation of the book.

Part I is titled “Applying Kant’s Ethics” and it contains 4 chapters. In the first chapter, titled “Animal Suffering and Moral Character”, Altman explains, first, that Kant’s anthropocentrism should be taken exclusively as logocentrism which states the central value to the (possession of) reason. He argues that even though such view is an inevitable starting point for every ethics, Kant’s ethics provides enough space for the legitimation of duties (with regard) to nonrational animals. He critically deals with some Kantians who, in trying to save Kant from objection of animal welfare advocates, completely abandon his central ideas. He concludes that such approach to Kant is not just unfair, but also unnecessary if we want to provide well based Kantian arguments against maltreatment of animals.

Chapter “Kant’s Strategic Importance for Environmental Ethics” links at first sight completely abhorrent thesis: Kant’s anthropocentrism and Kantian-based environmental ethics. The author shows that even though Kant starts with anthropocentrism as inevitable premise for every ethical discourse, his ethics could take us to well based environmental ethics. Altman argues that we could build on Kant’s teleology, aesthetics and ethics a convincing environmental ethics, which avoids usual objections to nonanthropocentric alternatives. Contrary to general opinion, Kant is probably the best ally to environmental ethicists!

The third chapter deals with “Moral and Legal Arguments for Universal Health Care”. The author observes that while the first two chapters deal with possibility of Kantian

foundation of our ethical standpoints toward nonrational animal and environment, the rest of the book is concentrated on the behaving toward other people. He stresses that “applying Kant’s ethics to some of the major debates in bioethics should be much easier and more straightforward.” (p. 71) Thus, in this chapter he argues that there is a moral duty to assist others in their health care, but also that government is legally bound to provide health care. Furthermore, these premises lead to the duty to provide truly universal health care which extends the borders of people’s own countries.

In the “Scope of Patient Autonomy” the author analyzes which is the scope of patient’s freedom by demonstrating the arguments connected with three major contemporary bioethical issues: physician-assisted suicide, refusing of life-saving medical treatment and organ donation. Altman shows with enviable precision that physician-assisted suicide is necessary ruled out from a Kantian standpoint. On the other side, he argues that Kant’s ethics could not give a straightforward answer in the issue of refusing life-saving medical treatment. Furthermore, he completely justifies organ donation on the basis of Kant’s ethics. The whole analysis in this chapter is extremely significant for showing the complexity of Kant’s notion of autonomy (and underlying notion of freedom) which should be seriously taken into consideration if we do not want to be misguided in contemporary debates about patient’s autonomy.

In the second part, titled “Kantian Arguments against Kant’s Conclusions”, the author points out two topics in which Kantian arguments could be used against his own conclusions: capital punishment and same-sex marriage. Thus, chapter 5 the bears title “Subjecting Ourselves to Capital Punishment”. In this chapter, Altman first explains the difference between morality and legality as a starting point for discussion about capital punishment as retribution in a form of death penalty. He shows that Kant is faced with two large problems in advocating for capital punishment. First, in the legal process we can never truly elucidate the motivation of the convicted which is, according to Kant, really relevant for his sentencing. Second, it is a fact that our justice systems are fallible, what presents a great problem for death penalty because there is no possibility of compensation of wrongful conviction. Altman concludes that these are sufficient reasons for undermining a legislation of capital punishment.

In chapter “Same-Sex Marriage as a Means to Mutual Respect” the author thoroughly presents and analyzes Kant’s thoughts about

marriage, sex and homosexuality. He shows that following Kant's ideas about those subjects we could not find any convincing argument for looking at same-sex marriages as morally problematic. At the contrary, if we read Kant consistently, his views indicate that homosexuality is morally problematic, as any other sexual relationship, i.e. if it is not legally enforced through the institution of marriage which is formal framework for mutual respect as a core of such relation. "The irony", he concludes, "is that it is not the immorality of homosexuality that precludes marriage; rather, not having marriage available to homosexuals makes homosexual unions immoral." (p. 161)

The final and the largest part of the book is titled "Limitations of Kant's Theory" and it includes four chapters which bring serious complaints to Kant's theory, especially with relation to its applicability on contemporary bioethical issues. Thus, the seventh chapter, under the title "Consent, Mail-Order Brides, and the Marriage Contract", brings a presentation of awkward implications of Kant's theory concerning the phenomenon of "mail-order brides". Kant's ethics not only gives a basis for considering such "marriage deals", or "contracts" as ideal way of get married, but it gives no answer to the problem of possible coercion due to adverse circumstances of the brides which "consent" to such marriages for completely extrinsic reasons (better social, financial and general welfare). It seems that Kant fails to recognize cultural and social biases and completely neglects the emotional dimension of marriage.

The next chapter, "Individual Maxims and Social Justice" goes further with criticism of Kant. Starting with Hegel's objection of formalism in Kant's derivation of Categorical Imperative Altman presents transparently the limitation of such formalism on the example of the duty of reducing poverty. He convincingly shows that social and cultural content is not just important, but inevitable for specification of the content of particular maxims. In other words, it seems that strictly Kantian approach with insistence on individual derivation and aprioristic character of categorical imperative (the process of universalization of our subjective maxims of acting and behaving) misses the point and fails to give a firm and indubitable norms of behaving, what in theory categorical imperative should provide. Differently said, political, social, cultural and other empirical circumstances could not be neglected in our moral reasoning.

Chapter "The Decomposition of Corporate Body" deals with one particular problem in which Kant's philosophy could not give a

satisfying answer: business ethics. Through the analysis of Kant's concept of agency, Altman shows that Kant's philosophy cannot provide a ground for collective responsibility and, thus, generally for any possibility of business ethics. Even though his reasons for individual responsibility are strong and actual in many debates, it seems that in some cases we could not find one agent who is responsible for some consequence or consequences. The best example is some general policy in big corporations, where the final consequence is a product of corporate policy in general and a chain of decisions and acts of different agents. It seems that business ethicists are faced with a choice: to embrace Kant's views or try to build a basis for theory of collective responsibility, because those two are mutually exclusive.

The last chapter is most extensive, what is understandable given the complexity of the issue: "Becoming a Person". The question about who is considerable as a moral agent for Kant could be translatable in the question about who is considerable as a person. Altman gets the most heated contemporary debate about personhood – abortion – as the best way for demonstrating the limitations of Kant's ethical theory in dealing with bioethical issues. With extremely strong reasons based in Kant's philosophical opus Altman argues that it is impossible for Kant to give a satisfying answer in this debate. First he gives a short historical overview of the practice of abortion in ancient times. Then he presents various arguments and strategies for *pro* and *contra* the abortion to show the complexity of the issue. Altman shows that Kantian philosophy has no satisfying tool for enhancing the debate about personhood, and thus the debate about the moral status of abortion. On the one side, Kant presents the self-consciousness, humanity and responsibility as necessary reasons for personhood, but that has extremely awkward implications, such as exclusion of children from moral consideration. On the other side, even though Kant speaks about the specific predispositions in human kind, his ruthless criticism of naturalism and empirical characteristics in defining a moral realm gives no basis for argument from potential (the view that fetus is potential person). At the end, Kant cannot even include the potential appeal to God (God's plans with our race), because of his criticism of such grounding of morality. Altman concludes that Kant not just gives any answer about the problem of abortion, but he gives many reasons for completely inconsistent strategies concerning this problem. He ends with the opinion that exactly Kant's doubt and indecision about the

issue of personhood leaves to us in heritage a debate about abortion as one of the greatest contemporary issues in (bio)ethics. He suggests that we should think in direction of completely different approach to the problem, which will result in building an alternative to Kantian ethics, concerning the abortion.

In the “Conclusion: Emerging from Kant’s Long Shadow”, Altman warns that in addressing the contemporary (bio)ethical issues without Kant it could not be even possible to conceptualize many problems. Furthermore, he adds that Kant’s actuality is much greater than some Kantians believe, because there are many unfair approaches to his texts. But, at the same time, Altman suggests that Kant leaves to his successors not only many efficient tools and important arguments for solving many problems, but also he leaves many doubts and uncertainties concerning some vivid contemporary issues.

Following author’s insights we could agree that every serious (bio)ethical enterprise should start with Kant, but not stop with him. We should do a fair reading of the arguments provided by the famous philosopher from Königsberg, but also, following his insistence on continuous investigation and criticism try to find alternatives in those cases where his philosophy encounters limitations.

At the end it should be noted that this book is equipped with bibliography which lists 375 references (!) and an especially useful Index which includes names, concepts and issues. The author was completely successful in his main goals, which are the investigation and presentation of strengths and weaknesses of Kant’s ethics, but also the demonstration of the value of Kant’s approach for the contemporary applied ethics and/or bioethics. The book is “kantianly” precise and rigorous in arguments, but “bioethically” fresh and actual in presented problems. It is probably the best proof of continuous actuality of Kant’s thought, and simultaneously the demonstration of indispensable need of consulting the philosophical classics if we want to better understand, define, and eventually solve contemporary hotly debated problems and issues.

**Igor Eterović**

**Peter Swirski**

**American Utopia and Social Engineering in Literature, Social Thought, and Political History**

Routledge, New York – Abingdon, Oxon 2011

Peter Swirski has always been one to advocate interdisciplinary research and bridging diverse fields of inquiry, but what he accomplishes in *American Utopia and Social Engineering* surpasses anything that ‘interdisciplinarity’ may have signified before. While paying a tribute to a panoramic array of American literary fictions – Skinner’s *Walden Two*, Kesey’s *One Flew over the Cuckoo’s Nest*, Malamud’s *God’s Grace*, Percy’s *The Thanatos Syndrome* and Roth’s *The Plot Against America* – Swirski explores such diverse topics as behaviourism, democracy, voting systems, altruism, social cooperation, violence, chip-implant technology, adaptive roles of emotions, evolution, adaptive mechanisms, altruism, and most importantly, social engineering in the United States, which is the central concept throughout the book. As it is usually the case with Swirski, the literary quotient is only outdone by the challenging and thought provoking theses he puts forward. As the author himself states in the introduction,

“American Utopia and Social Engineering is a book about contemporary American society and culture. It seeks to understand the United States during the post-World War II era which took such a heavy toll on its institutional policies and ideals. But far from subscribing to American exceptionalism, it seeks larger truths. It seeks to draw from the American experience lessons that hold no less for other societies and other cultures. As such, even as it remains a book of literary scholarship, it is also a book of science – analytical rather than experimental, but science none the less” (p. 2).

Chapter one, dedicated to B. F. Skinner’s *Walden Two*, opens with a brief background into Skinner’s life and work, mostly with the aim of demystifying the accounts – many of them false – surrounding Skinner’s professional theories on behaviour and development. But what Swirski is mostly concerned with here is showing the extent to which various attempts to socially engineer a ‘better’ society are doomed to fail due to the fact that they all neglect our inherent, evolutionary determined adaptive behaviour, emotions and preferences (such as the connection between parents and children, as opposed to communal



children, the pair-bonding as opposed to free-love ethic, the need for privacy and property (and yes, power and ownership) as opposed to egalitarianism and generosity). One such example includes envy and jealousy, which, although unpleasant, sometimes harmful and often violent, are nevertheless indispensable parts of our emotional and cognitive mechanism which enables us to cooperate with other people, form partnerships and keep our loved ones close. As Swirski shows on various examples, it was a crucial fault on Skinner's part to neglect the extent to which adaptive human behaviours cannot be excluded from social programming. Because once they are, all the programming may be in vein.

Admirably, Swirski ferrets out an array of real world examples (such as the famous Twin Oak and Los Horcones) which prove the points against Skinner – like attempts at engineering a better society, including the statements and testimonies of people who were at one time members of Waldenite communities. He also goes on to enlist some of the most obvious contradictions that are supposed to keep alive such communities, contradictions which are supposed to go unnoticed. To give but one example, an artificially made economical structure in which no one has dominance over the others is only made possible due to the fact that the whole society goes by living on the social benefits programme which enables one to get money after being employed for three months. In addition, as Swirski shoes, it is literally impossible for such communities to exist without the help (and support, financial, medical etc) from the 'outside' world. Such a community is parasitic at best, but more importantly for the topic here, utterly impossible to maintain and for that reason it cannot be an alternative to the world we know. However, as Swirski cautions us as the chapter closes, the lesson that *Walden Two* teaches is important and valuable nevertheless, not because of the facts it gets wrong but because they are still not recognized and taken into consideration by those who have the power (political) to engineer the society we live in, not necessarily a better one but certainly more real. In that sense, Swirski's analysis is more important because of what it says about today's world and political arrangements than because of what it says about *Walden Two*. The following quote should make this point obvious:

"Lenin's 'perestroika', Stalin's collectivization, Mao's great leap forward, Pol Pot's cultural revolution are just the most notorious chapters in the book of horrors written by modern states in the name of engineering better societies. The issues raised in *Walden Two* continue to make headlines whenever democratically elected dictators try their hand at na-

tion-building. For witnesses of the debacle of democratizing Iraq – and the concurrent conditioning of Americans at home with terrorist alerts, nationwide surveillance, and erosion of civil rights – behavioural engineering is never about the past" (p. 26).

In the second chapter Swirski continues his analysis of the real life attempts at engineering better society (or, which comes to the same, attempts to temper with behaviour and instincts) though this time the scenery is not that of utopian paradise but of mental institution hell. Highlighting the parallels between 1961 experiment in motivational therapy conducted in the Anna State Hospital Illinois and Ken Kessey's 1962 novel *One Flew Over the Cuckoo's Nest*, Swirski's main aim in this chapter is to gradually and mercilessly expose democracy as anything but 'the vote of the people'. However, before getting there, by enlisting numerous examples from real life (as opposed to fiction), he questions the unclear and often arbitrarily drawn line between the good and the bad (Nazi democide in Europe or the American genocide in South-east Asia), sane and insane, moral and immoral. With the focus being on the way those in power (in some cases professional doctors and trained nurses in various mental institutions, in other cases prison management, in yet other cases Bush administrations, CIA, Supreme Court, pharmaceutical industries) use various behaviour changing techniques (ranging from various forms of stick and carrot to electroshocks and antipsychotic drugs to enforced sterilization) to monitor, sanction, control and punish the behaviour, deeds and actions of its citizens (regardless of how harmless the behaviour, unproven deeds, unfounded allegations against them are), Swirski reveals the depth to which government has the control over the citizens, or, to put it differently, how little power, not to mention rights, the citizens have in what they think is free, democratic nation.

*One Flew Over the Cuckoo's Nest* is a political allegory, Swirski argues, "about the blight consuming the nation, of which the mental ward is a reflection – a synecdoche. The Inside is kept in check with intimidation and repression, widespread spying and denunciations of inmates" (p. 68), but the real tragedy that the novel reveals is that the world inside is no different than the world outside:

"Not by accident, Kesey's Inside is a scaled down prototype of the *political* world Outside. The ward has a president, a constitution, a democratic process, a ballot, a voting system (simple majority), a welfare system providing free housing and free 'Medicare', a law enforcement apparatus, and even class divisions between Acutes and the disfranchised mass of the Chronics" (p. 70).

Having established the parallels between the world inside the warden and outside, Swirski goes on to evaluate various interpretations of the novel, but remains focused on depicting the way that episodes, people and principles from the ‘outside’ (mostly but not exclusively American) are disguised in the novel. One such parallel is President Harding of the Patients Council who is modelled on twenty ninth president of US, Warren Harding. Crucial parallel that Swirski analyzes is the voting system and the ways in which it is bent to serve not the people but the government itself. The famous arm lifting/voting by Chief which does not bring about any change in the system and does not make it possible for the will of people to be recognized is brought in connection to half a million votes that Gore had over Bush the second, which however did not make him a President (and that is just one of the many examples from real world voting systems that Swirski discusses). The moral of the story is obvious:

“The election of the most powerful public servant in the world is governed by a system that robs citizenry of their say in the process. The people elect Tilden over Hayes, or Gore over Bush, and the system spits out the wrong president. Where exactly is the democracy?” (p. 77).

In order to answer to this question, in the last part of the chapter Swirski discusses the difference between American – representative, and Swiss-participatory democracy, arguing that the Swiss system is not only more fair and less prone to corruption and misuse, but also that it allows people’s will, choices and preferences to be acknowledged and acted upon in political decision making.

In the third chapter, Swirski turns his attention to post-apocalyptic scenario described in Bernard Malamud’s *God’s Grace* (1982), and compares it with Jonathan Schell’s *The Fate of the Earth*. Again, though the comparison might be between what is considered a fiction and facts, both books, as Swirski beautifully demonstrates, speak volumes about our world and our nature:

“However dissimilar on the surface, Schell and Malamud are one in intent. Both speak to every American, Russian, Chinese, or Gabonese who hopes for the survival of his sons and daughters. Both are hard-nosed realists about our chances to avoid self-extinction, horrified that Ecclesiastes’ sun that also rises may be made of runaway neutrons. Both resort to every weapon in their narrative arsenals to make sense of a long procession of American administrations which, even as they ratify disarmament and non-proliferation treaties, upgrade their nuclear stockpiles in a political game of chicken played with one finger on the button” (p. 92–93).

For all the similarities between *God’s Grace* and *Walden Two*, the two differ radically in the

way they approach evolution: Malamud, unlike Skinner, makes our ‘genetic carry-on’ the central piece of the plot. In that sense, Swirski argues, “*God’s Grace* questions our degree of autonomy from the ancestral Homo insofar as the latter is the progenitor of so many behaviours of the modern human” (p. 94).

Having established the framework, Swirski provides his readers with a little bit of literary criticism/interpretation (offering a quick insight into Malamud’s life, career, intentions and aspirations, an insightful analysis of the symbolism – particularly Biblical – in the novel and its place among wider literary canon that deals with apocalyptic scenarios or scenarios depicting the creation of a new society modelled on the humans and thus destined to break in disaster) which is however only a background to what he is really after here: the question of human intelligence, its role in human evolution and its value for the human life. Almost saddened, Swirski notes that “The same big brains that served us so well against predators, glaciations, food shortages, and other ecological IQ-tests are responsible for the nuclear means of exterminating life on earth – and for the lack of political will to ensure we can’t” (p. 98). And the problem of nuclear weapons is precisely the main issue here, with the author taking another chance to criticize Bush’s government and political choices that reverberate America’s arrogance toward the rest of the world and the naivety and short term memory of its own people, who remain silent while their government plays the sheriff in the big world, almost always at the expense of their own wellbeing. Enlisting several instances of American open disregard for the world’s peace and various examples of its pillaging of world’s resources, Swirski goes back to Malamud’s main concern: do we people really have to treat each other so badly?

Several concepts are of key importance for this question: altruism, and its evolutionary roots, culture as form of adaptation which enabled people to form kinds of societies and group behaviours that are unique and unmatched by any other creatures, religion as means of controlling people and separating them from those who worship other gods. Crucial here is the problem of cognitive development and development of intelligence and the way it was made possible by natural selection and evolution of culture. It appears now that humans, unlike any other creatures, have the capacity to exhibit, recognize and act upon intentional behaviour, which is the reason why humans are, but other creatures are not, adapted to culture. It also appears that only humans have developed some kind of morality that governs

or should govern (and often fails to govern) their behaviour and mutual conduct and relationships and Swirski analyzes various ‘explanations’ of why morality evolved. The one advocated for by Christians (God’s grace gave people moral sense) is rejected in favour of the one offered by Malamud’s evolutionist explanation (“Cooperative and altruistic units tend to outperform self-oriented individuals ... Egoism betters individual fitness, but altruism betters group fitness” p. 114). Things however are not as simple, due to what Swirski calls fractal architecture:

“Individual egoism twines with altruism within a group, which twines with competition against other groups, which twines with altruism within groups of groups, which twines with competition against other groups of groups, and so on, independent of scale. Multilevel selection permeates our lives because it is a fractal present at every level of existence” (p. 116).

Like any good scientist, Swirski is ready to offer evidence for his claim that morality is evolutionary determined, and the evidence, perhaps surprisingly, comes in the form of proverbs, “the wit of one but the wisdom of many” (p. 117). The rest of the chapter is dedicated to the delightful analysis of proverbs, ranging from various countries they come from to various wisdoms they impart. The conclusions he reaches are startling and instructive. Similar ‘advices’ for behaviour are found in all the countries, proving that “human nature respects no national boundaries” (p. 120). Proverbs also reflect “our evolutionary priorities” (p. 121) in that they deal with lineages, blood, hereditary characteristics, incests, marriages, weddings, quality of wives and “patriarchal hierarchy of social position and transmission of (oral) knowledge” (p. 121). The data also shows that there is “a significant quantitative preponderance of prosocial proverbs over egoistic ones (reflecting the need to police self-serving and anti-social behaviour)” (p. 121), thus proving his statement about morality being evolutionary implemented trait, not something God gave us to improve our wellbeing.

In fact, as Swirski’s concluding remarks show, religion is “a flexible coping mechanism” (p. 129) that helps people throughout social and economic hardships. Interestingly (even if not surprisingly) enough though, as his data reveals, “Countries plagued by social problems, such as the United States, are the most religious” (p. 128). The conclusion of the chapter is on the whole rather gloomy. Taking the example of the climate change (and the reluctance of the leading politicians to do anything about it), Swirski remains unconvinced that people are really evolution’s

‘best’: “Humanity itself gives little indication that it is fit for the job. Even as evolution’s unfinished experiment has favoured the sapient *Homo* to develop intelligence and civilization, we may not have been the optimal choice” (p. 129).

The crucial issue in chapter four is aggression and the question of whether this evolutionary determined mode of adaptive behaviour can somehow – chemically, medically, pharmacologically – be modified or even eradicated. But even more importantly, Swirski wonders, would a society that has undergone de-aggression, be in some radically important sense better than the one we have now, society that is violence free, sans rape, killing, molestation, abuse, fights? Perhaps surprisingly, the answer is – no:

“Advocators of eradicating war and murder may be hard put to see the downside, but any putative de-aggression would afford endless opportunities for making things worse instead of better. For one, whoever eluded the procedure would wield total control over a population of sitting ducks. That alone guarantees that millions would try it. Worse, unless de-aggression was universal and irreversible, any rational individual or government *ought* to try it” (p. 134).

The literary incentive that triggers these discussions is Walker Percy’s *The Thanatos Syndrome*, which Swirski analyzes from various points of view. First by discussing the role that utopias – and in this case particularly Thomas More’s utopia – play in Percy’s novel, and then by drawing parallels between the novel and the various eugenic programmes, the most outstanding of which is Nazi Germany. The questions raised also concern the boundary between sanity and insanity, mentally stable and unstable, those who are ‘adjusted’ and those who are not. Crucial here is the parallel between Percy and Kesey:

“Just like Kesey, Percy is convinced that some of our neuroses, psychoses, and depressions are more than ailments pure and simple. They may be resources for learning from our inner selves which tell us things of value in these strange and sometimes pathological ways” (pp. 141–142).

Swirski however remains dedicated to pursuing his most important line of inquiry: the role of state in social engineering and the various methods it has at its disposal, ranging from various forms of indoctrination to more radical techniques of mind control. In order to show how diverse such techniques are, Swirski describes several of the most outstanding researches conducted at some of the most famous Institutes for cognitive psychology and behaviour with the aim of showing that the technology we have today is capable of, but also to pave the way to what awaits us



in the future. The extent to which scientists are already capable of detecting, monitoring and even controlling our thoughts is amazing; in some cases it is life-saving (the example with helping out patients with dystonia) and enables people who would otherwise be condemned to a life filled with agony to be relieved of their pain. But Swirski is rather gloomy, justifiably so, here: if there is even a possibility these techniques will one day enable reading of our most intimate thoughts, as is almost certain, they will also enable mind control and de-aggression that will extend far beyond anything ever depicted in literature, and we won't even know it. So the real dilemma here boils down to whether or not we should look forward to a day when the evolutionary implemented aggression and violence are eradicated from our behaviour. In order to show the full extent of this dilemma, Swirski plays the double role of Devil's advocate (arguing against implementing any kind of techniques that would eliminate aggression and violence) and the Advocate (arguing for this kind of implementation) and concludes the chapter by asking the readers to make up their own minds on the matter.

The literary focus of the final chapter is Philip Roth's *The Plot Against America*, which Swirski uses as a backbone against which he examines the way emotions and politics work together. Writes Swirski: "Conditioning the country with phony terror alerts and non-existent WMDs, his [Bush II's] administration exploited a key evolutionary feature of emotions: in the presence of powerful impulse, they grab the wheel" (p. 184). Giving his readers a free lecture in rhetoric, and cautioning against charismatic leaders (who have the power to "get away with telling a hundred and eighty million people to ask not what their country can do for them, but what they can do for their country" (p. 187), Swirski relies on several famous speeches delivered by America's various Presidents that, by carefully inserting the key words that trigger the emotions, words such as family, death or taxes, manage to manipulate people's emotions and incite emotional states that guide them in decision making, like in electing the presidential candidates (Bush the Father promising no new taxes) or giving their blessings to America's invasions all over the world (Bush the son's war with Iraq and Afghanistan). The focus here however is not on how emotions can get things wrong, but how politicians consistently fail to make things right, while successfully managing to get away with whatever lies they deliver, regardless of how farfetched (LBJ's pledge to eliminate poverty, "even though no nation in history has succeeded in doing so"

/p. 190/) or openly phony (Clinton's pledge about not having sex with Monica Lewinsky) they are. "Never meant to be kept, all these covenants had, however, a certain emotional decorum" (p.191) which is however still not as bad as those politicians' promises "that could have been kept, but weren't" (p. 191). Swirski here fires most critically at the current President Obama:

"He promised to be swift: now he has fallen behind with everything, starting with closing Guantanamo. He promised change. Now he copycats Dubya by increasing military budgets, escalating wars in Asia, muzzling the release of photos of dead soldiers' coffins, short-changing education, and bailing out Big Banks and Big Businesses with little people's money" (p. 186).

The chapter brings forward a much needed analysis of the importance of emotions for adaptation and functioning of people, a view which has only recently started to gain importance and recognition in the philosophy, with the philosophy of emotions rapidly growing as a discipline. The premise here is that emotions are "*biological* regulatory mechanisms ... implicated in all kinds of adaptive behaviours, from mate-seeking and aggression right down to thinking and decision making" (p. 173). Swirski here sides with Hume, emotions are what guides our behaviour, in the sense that they "form a control system for body and mind, and hence the core of our being" (p. 196). More importantly in the context of the evolutionary biology that Swirski is concerned with throughout the book, he claims that "Human capacity for affective cognition – for feeling thoughts, if you will – is phylogenetically and developmentally prior to the capacity for propositional thought" (p. 197). Swirski ends the chapter by demonstrating how political propaganda relies on the rhetoric designed to make people emotional, rather than rational and attentive to facts ("During the Gore-Bush debates, Gore was mostly making sense while Bush was mostly talking nonsense, but whenever the audience heard a mouthful of statistics they heard a policy wonk and switched off. Most people want just slogans, not the facts, ma'am" (p.202). Similar principles are operative when it comes to fabricating a false history that is then being sold as the true history, not to mention when it comes to designing educational programs that could make national history "get a facelift more thoroughgoing than any of Michal Jackson's" (p. 206).

Given the book's complexity and profoundness, it is obvious that Swirski has once again outdone himself. There are several points of view that a reader can take toward the book. Given the extremely detailed analysis of the

literary works, the way they are shaped by the events from the real world, and more importantly, what they say about the world, the book can be read as a testament to literary cognitivism in the widest sense, as well as a monument to humanities and the importance of the insight that literature can give us when it comes to the way we conceive of ourselves and make sense of our experience. It can also be read as a record (not to mention an analysis) of political and social movements that have marked the last six decades, challenging along the way the pre-established (and for the better part, blindly and uncritically accepted) views, doctrines and conceptions.

One thing that a reader might read into the book (or get out of it, depending on one's impressions) is a very powerful, often ruthless criticism of US politics and politicians, supported by numerous examples and more than extensive analysis of data. Objective and straightforward, Swirski has no tolerance and no patience for political fairytales that are being sung by democrats as well as republicans (and everyone in between) and he has no mercy towards the corruption and lies that are at the core of political system. Yet he does have the courage to state what is wrong with it and to caution against it: "US economy and politics are addicted to war" (p. 185).

However, the real focus of the book is the way that art and politics come together. This topic has been of interest for Swirski in two other of his books, *Ars Americana*, *Ars Politica: Partisan Expression in Contemporary American Literature and Culture* (2010) and

*American Political Fictions: War on Errorism in Contemporary American Literature, Culture, and Politics* (forthcoming in 2015), which together with *Social Utopia*, make a remarkable trilogy, unique in American as well as literary studies. No other scholar today addresses the topics that Swirski does from the perspective he does, taking into consideration so many variables that shape our culture and social arena, not to mention our cognitive, emotional and behavioural economy. Art and politics are not two separate spheres without any interaction or connection and Swirski's operative credo is that in order to understand these works, one needs to take into consideration the political issues they raise.

Though dealing with American literature and American politics, the book speaks volumes about people generally (not least because of all that it teaches on evolution and the way evolution 'designed' us) and the way our world functions, with politics being the underlying *modus operandi* that conditions the lives of every single person. It is only if we understand all that, that maybe we can do something to make life better for ourselves, rather than letting politicians/social engineers to do it. It is for this reason that the book should be widely read; its importance is not confined to American studies, literary studies, political studies or aesthetics, regardless of the immense impact it will for sure have in all of these disciplines.

**Iris Vidmar**