

Journal for the History of Analytical Philosophy

Volume 3, Number 1

Editor in Chief

Sandra Lapointe, McMaster University

Editorial Board

Gary Ebbs, Indiana University Bloomington
Greg Frost-Arnold, Hobart and William Smith Colleges
Henry Jackman, York University
Kevin C. Klement, University of Massachusetts
Lydia Patton, Virginia Tech
Marcus Rossberg, University of Connecticut
Mark Textor, King's College London
Richard Zach, University of Calgary
Audrey Yap, University of Victoria

Review Editors

Juliet Floyd, Boston University
Chris Pincock, Ohio State University

Assistant Review Editor

Sean Morris, Metropolitan State University of Denver

Editorial Assistant

Daniel Harris, Hunter College

©2015 Troy Catterson

Kevin Mulligan, Katarzyna Kijania-Placek and Tomasz Placek, *The History and Philosophy of Polish Logic. Essays in Honour of Jan Wolenski*. New York: Palgrave Macmillan. 2014. 308 pp. \$96.63.
ISBN 978-1-137-03090-0.

Reviewed by Troy Catterson

Review: *The History and Philosophy of Polish Logic. Essays in Honour of Jan Wolenski*

Troy Catterson

The value of an anthology is not equivalent to the sum of the value of its parts. This is what makes evaluating such a work so difficult. I found this to be especially the case with *The History and Philosophy of Polish Logic* (2014). While the individual articles make interesting and valuable contributions to the areas each one explores, the book as a whole fails to live up to its name. Accordingly, I will divide this review into three parts. The first part will review the work as a whole, adjudicating each of the parts in terms of how well they contribute to the overall project of the book. The second part of the review will engage the essays at the individual level, introducing each of them in terms of their merit as stand-alone works. In the final part I will narrow down my critical focus to two of the essays that I found most intriguing, namely those by Niiniluoto and Künne, both of which deal with the logic and semantics of the notion of truth.

As the title suggests, the book aims at filling a gaping lacuna in the literature on the history of analytic philosophy by introducing us to, and elaborating on, the important contributions made by Polish philosophers, logicians, and mathematicians of the Lvov-Warsaw School to the development of analytic philosophy. And yet, of the 13 essays that comprise the book only 6 significantly engage the views and arguments formulated by members of this school. To be sure, a few of the other essays do deal with themes that were of great importance to the Polish philosophers and logi-

cians of this school.¹ But to conclude from this that they, therefore, deserve inclusion in a book devoted to the history and philosophy of Polish logic is like arguing that an essay on Locke's political philosophy should be included in an anthology on the history of Confucian philosophy simply because political philosophy was one of the chief concerns of Confucian philosophers. Others occupy a sort of intermediate position; they mention a specific Polish philosopher or logician, acknowledge that he dealt with the same issue, and then go on to develop their specific theory without bringing it into substantive dialogue with the earlier account.² Hence, as a whole, I would have to say that the book fails to fulfill its putative goal. There is, however, a laudable reason for this failure: As the rear cover of the book suggests, most of the papers in this volume were presented at a symposium honoring Jan Woleński on his 70th birthday. So perhaps the editors would have done better to frame this anthology as a festschrift celebrating his role in stimulating renewed interest in Polish analytic philosophy. However this question is settled, the appropriateness of the title does not detract from the quality of the individual articles included in this work. So let us go on and introduce them.

The book is divided into three sections. Part One deals with logic, proof theory and model theory as these disciplines were developed by the Lvov-Warsaw school. Karpenko's article is interested in tracing the development of many-valued logics from its original formulation as a 3 valued logic by Łukasiewicz to its generalization into a theory of logical matrices by succeeding logicians. He helpfully ties the genesis of this logic to Łukasiewicz's concerns over the truth of future contingents and how Aristotle's solution casts doubt on the principle of bivalence. Sandu's paper articulates the broadest possible theory of quantifier dependence and independence, invoking game theoretic semantics as its only

suitable interpretation. He then proves that Tarski-type semantics are a special case of such semantics restricted to one-sum games of a certain kind. Pearce introduces the reader to the notion of a stable model and charts the history of its development as a way modeling the intuitionist and non-monotonic logics so necessary in the construction of logic programs and artificial intelligence. Van der Schaar utilizes the insights of Twardowski's seminal paper, "On the logic of adjectives," to sketch her own theory of the logic of non-attributive adjectives. Agassi criticizes the classical account of rationality, which articulates itself in terms of proof or evidence. He proposes a theory that sees rationality as openness to criticism.

The papers of Part Two focus on truth and other formal concepts. Hintikka's paper argues that the traditional definitions of truth based on Tarski's T-schema are viciously circular. He attempts to eliminate this flaw by means of Independence-Friendly Logic. Niiniluoto follows Twardowski's lead and argues against alethic relativism in its multifarious forms. Künne concerns himself with the semantic import of the notion of truth in ordinary language. Are we to understand its basic sense as a predicate applicable to propositions, or is it an adverbial notion only expressible via a modal particle? He advocates the predicate view. Mulligan's essay concentrates on the distinction between formal and non-formal concepts. He provides a brief sketch of the different ways in which Husserl and Wittgenstein tried to understand this contrast.

Part Three devotes itself to the ontology, mereology and philosophy of mathematics of the Polish school. Simons reconstructs an axiomatic system of arithmetic in Leśniewski's nominalistic ontology. Betti investigates Tarski's putative grounding of the geometry of solids in Leśniewski's mereology. She argues that this

grounding departs from Leśniewski's ontology in that it assumes the existence of Russellian classes, which interpret the membership relationship as an individual's inclusion in a group rather than a part's inclusion within a whole. Loeb takes a different perspective on this same grounding. She is interested in tracing the emergence of the connection between mereology, regular open sets, and Boolean algebra in Tarski's work. And finally, Murawski examines the stark contrast between the Cracow and Lvov-Warsaw schools' views of the relationship between mathematics and logic.

I will devote the rest of this review to a closer examination of two articles I found particularly interesting: Niiniluoto's essay against alethic relativism and Künne's article defending the semantic conception of truth as a predicate. As far as Niiniluoto's article is concerned, I find myself in substantial agreement with his overall points against global alethic relativism. Nevertheless, I worry about the dialectical efficacy of some of his arguments. Take for example his development of Twardowski's proof that the subjectivist notion of truth must come in conflict with the laws of logic. He reconstructs his reasoning within the framework of doxastic logic. "Thus, a statement p is *true for person a* (in symbols, $T_a p$) if and only if a believes that p ..." (p. 146). He then goes on to use the logical characteristics of the belief operator to show some of the absurdities that result from such a conception of truth. It is important to pay close attention to Niiniluoto's use of the index in his characterization of the global subjectivist's notion of truth. He argues that his definition truly captures the alethic relativism inherent in subjectivism because distinct persons a and b may hold conflicting beliefs concerning the truth of p . And, since truth is defined as belief, it follows that they may hold conflicting truths.

However, dialectically speaking, this whole strategy reeks of question-begging circularity. For any index would actually serve to eliminate the relativity of the statement under consideration. Consider as a case in point the statement: *Socrates is sitting*. This statement is true when uttered at some time when Socrates is actually sitting but false when he is standing up. Thus, the truth of this statement is relative to times. However, we can eliminate the temporal relativity of the truth of this statement by appending it with a time index. So *Socrates is sitting at 3pm, May 1st, 404 BCE*, if true, is true regardless of the time it is uttered. Similarly, the definition of truth that the subjectivist is being asked to accept includes the subject as an index and hence, if accepted, would admit of truth regardless of the subjective standpoint. But such an admission would be nothing more nor less than a direct admission of defeat from the get go. Consequently, it behooves the card-carrying global subjectivist to reject it.

Niiniluoto raises yet another difficulty for the global relativist that I find to be equally deficient in its dialectical efficacy. He argues that, insofar as I am aware of my beliefs – and I must be according to the logic of belief accepted by Niiniluoto, the subjectivist definition of truth would entail that I am omniscient: “I could not admit that there are some truths unknown to me or that some of my beliefs are false” (p. 147). But this would only follow if I equated knowledge itself with belief. Suppose, however, that I am a relativist of a psychologically more sophisticated bent. I claim that knowledge involves awareness of what I believe. In addition, I deny that am aware of everything I believe. A relativist of this type would be perfectly coherent in claiming that there are truths he does not know, for all he would mean is that he has beliefs of which he is not aware.

Niiniluoto could respond that such a cognitive situation is still not possible, even on the conception of knowledge as awareness of belief. This is because the relativist, in his consideration of any particular statement *p*, would either be aware that he believes it or unaware that he believes it. If he is aware that he believes *p*, then he knows *p*. If he is not aware that he believes *p*, then either he believes that he does not believe it, which means that it is true that he does not believe it, or he believes that he has formed no belief concerning *p*, which in turn implies that it is false that he believes *p*. Either way, there could be no particular *p* such that the relativist is unaware of its truth. Certainly this would be a valid train of reasoning for any statement that the relativist consciously brought within the scope of his consideration. However, why should this be the case? As long as it is possible that there are *p* such that a person has not considered whether or not he believes *p*, it will also be possible that there are *p* such that that person believes *p* but is not aware that he believes it.

Now let us turn to Künne’s article. On his view,

“(TC) *It is true that snow is white*

is just a stylistic variant of

(TP) *That snow is white is true*”

and the latter is another variant of

“(TP+) *The proposition that snow is white is true...*” (p. 161).

Hence TC is just an unobvious way of ascribing truth to the proposition that snow is white. All assertions of truth are predications of the property that is signified by ‘is true’ to propositions. So TP+

expresses the basic sense of TC, and truth is a predicate rather than a logical operator.

Künne realizes that the correctness of his view depends on the intuitive validity of the inference from TC to *something is true*. This is because, semantically speaking, on the above theory TC expresses the same proposition as TP and TP+. They, therefore, must have all of the same implications. But this would mean that the occurrence of 'snow is white' in 'It is true that snow is white' is syntactically equivalent to its occurrence in 'snow is white is true,' revealing the that-clause in TC as a singular term referring to a proposition and hence susceptible to existential generalization. And yet the validity of existential generalization in this context itself depends on the denial of the redundancy thesis, the view that uttering the sentence 'snow is white is true' is tantamount to uttering the sentence 'snow is white.' For suppose that the redundancy thesis is true. Then *it is true that p* is identical to *p*, which implies that the occurrence of *p* in *it is true that p* is not a singular term any more than *p* in its utterance is a singular term. Consequently, quantification into the that-clause would not be permissible, rendering the above inference from TC to *something is true* invalid.

Although Künne preempts such a move by assuming that the redundancy thesis is false, he does go on to give a very intriguing argument for its denial.³ The redundancy thesis is true only if biconditionals of the form 'It is true that *p* iff *p*' are logically true. But suppose that bivalence does not hold. Then *p*'s failure to be either true or false would imply the falsehood of *it is true that p*, thereby short-circuiting their logical equivalence and fatally undermining the redundancy thesis. Depending on the reason for the failure of bivalence with respect to *p*, there are two responses open to advocate of redundancy. Künne adduces the example of a sentence

with a singular term that fails to refer such as 'Socrates' first book was a great success.' In order for this example to work, he must follow Strawson and Frege and take that to mean that the proposition expressed by this sentence lacks a truth value. But this just throws our redundancy advocate into the arms of Russell, for he can avoid the infelicitous result by claiming that 'Socrates' first book was a great success' abbreviates the existential statement, ' $\exists!x$ (*x* is Socrates' first book & *x* was a great success).' Since the latter statement is indeed false, it ceases to be a counterexample to the logical equivalence of *p* and *It is true that p*.

Another possible reason for the failure of bivalence is vagueness. Take for instance the statement *Troy is bald*. This statement may be neither true nor false because Troy is a borderline case of baldness. Such a case would again call into question the logical equivalence necessary for redundancy, but only if the vagueness stays well behaved. That is to say, $\forall p(\text{True}(p) \vee \sim\text{True}(p))$, the attenuated version of bivalence, still holds. For suppose that every vague property exhibits every order of higher order vagueness. Then the property that the truth predicate expresses would itself possess borderline cases so that, whenever *Px* expresses a borderline case of *P*, *It is true that Px* expresses a borderline case of true. Such a theory of higher order vagueness would preserve the equivalence by infecting *It is true that p* with the vagueness that inflicts *p* itself.

So there are ways of deflecting the force of Künne's argument against the redundancy thesis. But these ways force the advocate of redundancy into making some very substantive philosophical commitments. First of all, she must accept a Russellian theory of singular terms, not just of definite descriptions, but also of proper names, for it is always possible that a proper name like 'Zeus' might fail to designate anything. Moreover, the advocate of re-

dundancy must view every failure of bivalence due to vagueness as an instance of higher order vagueness where the property of truth itself possesses borderline cases. Thus, Künne has revealed some very interesting logical connections between the redundancy thesis and controversial issues in both philosophy of language and metaphysics.

Troy Catterson

Salve Regina University.

Notes

¹ The essays that seem to have only this thematic connection are those by Agassi, Pearce, and Künne.

² The essays that fall in this latter category are those by Sandu, van der Schaar, Niiniluoto, and Mulligan.

³ In the paper he does not state it as such, but it seems to be the only reason why he would include this line of reasoning at this point in the paper.