Sebastian Sunday Grève and Jakub Mácha (eds.). *Wittgenstein and the Creativity of Language*. Palgrave Macmillan 2016. 314 pp. \$99.99 USD (Hardcover ISBN 9781137472533).

The title of this collection of papers is broad and vague enough to leave the prospective reader unsure what to expect. The contributors took full advantage of this breadth to address quite a variety of topics. Not all the papers clearly address the creativity of language; not all the papers even really address Wittgenstein. But this is the fate of many collections—that the whole is no more than the sum of the parts. While the editors provide an introductory essay, it sometimes seems more wishful than descriptive in characterizing the unity of the volume. Nevertheless, the remaining ten essays offer a good deal of interest.

There are two strains in thinking about Wittgenstein that suggest a tension, and it is this tension that gives rise to the topic of this volume. On the one hand, there is a strain of linguistic conservatism according to which language either makes sense or nonsense to the extent that words are used in ways that do or do not conform to their criteria. This strain derives from Frege, and was articulated by Wittgenstein in 1930, soon after his return to Cambridge (Philosophical Remarks, 182): 'For only the group of rules defines the sense of our signs, and any alteration (e.g., supplementation) of the rules means an alteration of the sense. Just as we can't alter the marks [Merkmal] of a concept without altering the concept itself (Frege).' While this presumably allows us to invent new words, it supposes strict limits to the words that we have. There is a danger from following 'analogies between forms of expression in different regions of language': 'philosophical problems arise when language goes on holiday' (PI §§92 & 38). On the other hand, there is a strain of linguistic creativity according to which, while language is governed by rules, those rules do not themselves and for all time determine what counts as a legitimate application or continuation into future cases. This strain gets its footing through the reflections on family resemblances as against essences, but only when that insight is extended through time. Then it gets reinforced by the rulefollowing considerations. Just as future applications of a word are legitimized by social and psychological confluences among the users, so those confluences are not set in stone, in advance, but are open to a variety of factors.

While we are familiar with poetic innovation and artistic innovation generally as such influences, it is also important to appreciate scientific innovation as another influence. None of the essays in this collection mention scientific innovation as a factor producing creative uses of language, but this reviewer has urged its importance, and its place in Wittgenstein's thinking, in several essays over nearly 30 years. However, two of the papers in this collection address issues concerning linguistic creativity and mathematics. This will be a surprise to readers, but to my mind these were among the strongest essays here.

In the expansively titled paper 'Wittgenstein on Gödelian "Incompleteness," Proofs and Mathematical Practice: Reading *Remarks on the Foundations of Mathematics*, Part I, Appendix III, Carefully,' by Wolfgang Kienzler and Sebastian Sunday Grève, we get an examination of Gödel's use of non-mathematical language in couching his mathematical results. Gödel characterizes his famous sentence as 'true,' yet in the system of *Principia Mathematica* a proposition can only be asserted if it is an axiom or a theorem. The Gödel sentence is neither of these. Gödel explains that his result applies to a formal system 'when [it is] interpreted as representing a system of notions and propositions.' Wittgenstein takes issue with whether the phrase 'true proposition' can be meaningfully used outside of any system, in this case the system of *PM*, and whether the term 'sentence' can be applied to a mathematical formula. The undecidability result depends on this incorporation of mathematical results into ordinary language. Wittgenstein thinks that Gödel's

result presents us with a 'new situation' that requires us to make a 'decision.' Wittgenstein is wary of deciding to extend these terms in this way.

This paper is a very careful and clear exposition of probably the most criticized of all Wittgenstein's reflections on the foundations of mathematics. Its publication comes at a propitious time. The manuscript notes that contain Wittgenstein's reflections on undecidability date from the end of September, 1937. Those who are especially interested in this topic will want to know that Yorick Smythies' notes from Wittgenstein's lectures on exactly this topic of Gödel's proof have just been published, and are dated to the first half of 1938. (See *Wittgenstein's Whewell's Court Lectures: Cambridge, 1938-1941*, edited by V. Munz and B. Ritter, Wiley-Blackwell, 2017, 46-57).

Although Wittgenstein resists the creative extension of concepts like 'true' and 'proposition' by Gödel, he himself stretches the concept of 'grammar' beyond its syntactical use, to encompass semantic considerations as well. He holds that grammar is concerned with rules for the use of words generally. G. E. Moore attended Wittgenstein's lectures in the early 1930s and took him to task for this extension. In a paper written to provoke discussion in a lecture, Moore contrasted 'Three men was working together in a field,' an obvious violation of English grammar, with '2 different colours can't both be in the same place in visual space at the same time.' This latter Wittgenstein also wants to call a rule of grammar. Moore conceded that Wittgenstein might be using the term in a different sense that has something in common with the original usage, though not in precisely the same sense. Wittgenstein, however, insisted that he was using the expression in its ordinary sense. For Wittgenstein, the only difference is that the latter gives rise to philosophical difficulties, while the former does not. (See the recently published volume, *Wittgenstein: Lectures, Cambridge: 1930-1933*, edited by D. Stern, B. Rogers and G. Citron, Cambridge University Press, 2016, 367-378.)

It is hard to see how there could be any principled resolution of these kinds of issues. They seem to call up pragmatic considerations. In general, it seems that the success or failure of a creative extension of a concept depends on its uptake by members of the community. While they may be swayed by principled considerations, this is not something we can determine in advance. Of course, much depends on which community or communities one holds to be relevant, but the pragmatic resolution would ask whether there is a viable community that accepts Gödel's creative extension of 'true proposition,' and whether there is a viable community that accepts Wittgenstein's creative use of 'grammar.' If anything, it appears that Gödel's extension has fared better than Wittgenstein's. Evidently Wittgenstein's affection for King Lear's line, 'I'll teach you differences,' did not always extend to his own work.

Another paper that I admired in this collection has a nearly equally expansive title: 'Metaphysics is Metaphorics: Philosophical and Ecological Reflections from Wittgenstein and Lakoff on the Pros and Cons of Linguistic Creativity,' by Rupert Read. Read's primary target is Chomsky's insistence that language and human linguistic competence are 'infinite,' or 'infinitary.' Chomsky sees our linguistic creativity in our ability to express, and the language's ability to formulate, an infinite range of sentences.

Employing insights from Wittgenstein's discussions of these matters, Read argues that sentences in languages with a potentially infinite number of names, like '1 is a number,' '2 is a number,' etc., or with the syntactic ability to formulate an infinite variety of assertions, like 'The return of Tony Blair as Prime Minister is not to be tolerated,' 'The return of Tony Blair as Prime Minister is not not to be tolerated,' 'The return of Tony Blair as Prime Minister is not not to be tolerated,' 'The return of Tony Blair as Prime Minister is not not to be tolerated,' 'The return of Tony Blair as Prime Minister is not not to be tolerated,' 'The return of Tony Blair as Prime Minister is not not to be tolerated,' 'The return of Tony Blair as Prime Minister is not not to be tolerated,' 'The return of Tony Blair as Prime Minister is not not to be tolerated,' 'The return of Tony Blair as Prime Minister is not not to be tolerated,' 'The return of Tony Blair as Prime Minister is not not to be tolerated,' 'The return of Tony Blair as Prime Minister is not not not to be tolerated,' 'The return of Tony Blair as Prime Minister is not not not to be tolerated,' etc., do not show such infinite capacity. While these offer a mechanical method for

generating new sentences of indeterminate number, they do not constitute anything infinite. Language must be usable and surveyable, and eventually these are neither.

In addition to questioning the infinitary nature of these sentences, Read criticizes the notion that their generation constitutes any sort of linguistic 'creativity.' Instead, Read sees linguistic creativity in our ability to use and extend use through metaphor. Creativity is more of an art, in deciding on plausible metaphors and analogies, than a science of mechanically generating semantic or syntactic iterations. Ironically, this bases creativity in our finitude, if anything. Read also questions whether the finite/infinite contrast is even a clear or helpful one for thinking about humans. The end of the essay is an attempt to apply these lessons to politics, an application that is nothing if not imaginative. I highly enjoyed it.

I focused on these two essays because they are surprising in a discussion of linguistic creativity, but there are other strong essays. The ones that seemed most centrally connected with the topic of the collection were 'Wittgenstein: No Linguistic Idealist,' by Danièle Moyal-Sharrock, 'Wittgenstein, Verbal Creativity and the Expansion of Artistic Style,' by Gary Hagberg, and 'Wittgenstein and Diamond on Meaning and Experience: From Groundlessness to Creativity,' by Maria Balaska. But there are insights in all the papers.

The titles of essays in this collection averaged over 11 words. The cover photo, of a radiator from the house Wittgenstein designed, is exquisite, and perhaps encourages the reader to judge the book by its cover.

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