What of Multi- and Interdisciplinarity? A (Personal) Case Study

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As stated on its homepage and on other pages of its website, JKSS was conceived to be a venue for multi- and interdisciplinary (M&I) work in knowledge, ranging from knowledge engineering to Marxist epistemology. This defines not only the scope, but also the mission of JKSS, in the belief that knowledge is at the core of society and thus requires combined approaches from many and diverse perspectives. Faithful to this belief, in this current issue JKSS publishes the third of a series of (planned) five articles bridging formal and mainstream ontology via the text *On the origin of the categories* by the medieval philosopher Dietrich of Freiberg, in translation from the Latin into English. A work not likely to be found in other journals whose scope includes knowledge, but which in JKSS has had a very encouraging reception, to judge by the many scholars from very different research communities–from ontology engineering to medieval studies–who have agreed to contribute with commentary articles.

But what of M&I work out there? Does it fare elsewhere as well as in JKSS? I am going to analyze a personal case that seems to belie, in case anyone holds it, such an assumption. As recently as February 2021 I applied to FCT, the Portuguese Foundation for Science and Technology, in the context of its 4th call for applications for funding of individual projects hosted by Portuguese R&D institutions and organizations. (FCT calls this "Scientific Employment Stimulus" [1], but my impression at the end of the whole process is that this is rather a "Superstar Employment Stimulus," as only a minor percentage of candidates–the potential or confirmed superstar(-like) scholars–land an employment position in an institution that, paradoxically, is not internationally recognized as ranking anywhere in the list of the 200 best universities in

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the world.[1] But that is another story.[2]) For a long time now, I have been cooking up a project on truth in which epistemology is to be associated with formal languages into what might be called (a) strongly formal epistemology. Luckily, two philosophy institutions, to wit, the Center for the Philosophy of Science (CFCUL) and the Center for Philosophy (CFUL), both of the University of Lisbon, welcomed the proposal, and I say "luckily," because philosophy has always been *to me* the field in which M&I *can* be practiced without major obstacles, or the obstacles that appear to be insurmountable in other fields, such as mathematics, also in my background. Having chosen to proceed with my application with CFCUL as the host of this project, I first got stuck in the FCT electronic application form when I had to choose "Philosophy, Ethics and Religion" as the scientific field. I definitely do not see my work as having anything at all to do with religion, but I welcomed the *prima-facie* M&I approach implied by this label and did apply in this area. (To be honest, however, with a somehow piqued ego, because of the apparent absence of cognitive science on the long menu of the application form, which made me wonder whether there is any institution in Portugal where research in this field is actually carried out at all. When we are entering the third decade of the 21st century. When much of my work is in cognitive science, or has a cognitive-science orientation.) This choice dictated that my application was going to be evaluated by the Philosophy, Ethics and Religion panel.

The title of the project was carefully chosen to be "Formal Truth toward a Strongly Formal Epistemology," thus fitting in the scope of the scientific subfield, to wit, Epistemology in the Philosophy of Science, my project was submitted in. In it, I proposed to bridge–or close–the gap between deflationists and semanticists via a formal language, very likely of the logical kind, capable of accommodating a truth predicate immune to Tarski's incompleteness result while providing science and theories in general with a much needed truth predicate. To attain this result, I argued, the truth predicate is expected to be conceived via an order-theoretic approach, namely algebraic, that can distinguish and implement different degrees or kinds of truth. Thus conceived, this predicate will eliminate, among other problems, the truth paradoxes that have for so long taxed our philosophical resources. Briefly, this is a M&I project, recruiting *solely* epistemology and logic.

I say "solely," but logic can be either mathematical or philosophical, computational, too, and that is where my project, alas, was considered to be a tad too M&I. In the first report by the evaluation panel, among several startling comments I was actually scolded: I should have applied to the evaluation panel for Mathematics and Computer and Information Sciences, because the emphasis of the project was, and quoting the panel, "so much on the formal and computational side." Again piqued, now by this, and trying to get closer to the transcendental $n \geq 9$ (up from an insufficiently high 7.63), I

[1] Not in the 2021 Academic Ranking of World Universities, best known as Shanghai Ranking [2], in which the best ranking Portuguese institution, to wit, the University of Lisbon, is somewhere in the rank 201-300. Not in the QS World University Rankings 2022 [3], which ranks the University of Oporto, the first Portuguese institution in the ranking, in place 295. Not in the 2021-22 CWUR [4],* which ranks the University of Lisbon, the first Portuguese university in this ranking, precisely in place 201. Etc. (This was not an exhaustive search. *By now I am getting tired of typing really long titles.)

[2] Note that there is an "objective" criterion for attaining this superstar status: A final score of 10 (Outstanding := Exceptionally strong with no weaknesses) or somewhere between this and $n \geq 9$ (Very high := Very strong with negligible weaknesses). "Weaknesses" is the key word. Actually, the fearsome cutting n is indicated to be $n \geq 8$, but don't let that fool you.

counter-remarked, and now quoting myself, that "there is a well-established approach called 'formal philosophy' because it employs the methods of the formal sciences, traditionally mathematics, but more recently computer science, too. Secondly, the emphasis of the project is not 'so much on the formal and computational side'; it is, instead, on truth, and as I state in the first words of the plan's text, this is at the very heart of philosophy, formal or otherwise."[3]

To no avail was my counter-argumentation, though. Seemingly unimpressed, the panel counter-attacked that "[f]rom a historical point of view the combination of extremely diverse authors needs more clarification of the standpoint of analysis." These "extremely diverse" authors were, besides myself, the following: W. J. Blok & D. Pigozzi, A. Cantini, J. M. Dunn & G. M. Hardgree, J. M. Font & R. Jansana, G. Frege, K. Gödel, V. Halbach, V. F. Hendricks, S. Kripke, F. Nietzsche (mentioned as inspirational only), G. Priest, H. Rasiowa, R. Sørensen, and A. Tarski. I should think that these names, with the exception of mine, are familiar to most scholars working in (formal) truth and/or logic with an algebraic (semantic) focus. As it is, however, the mere mention of mathematical sub-disciplines–I did mention abstract algebra and recursion theory–appeared to have caused discomfort, and the panel, likely motivated by a comprehension gap, preferred to conclude that the "overall picture of the formal side of research, however, did not become clear enough," despite my detailed explanation, which included sets with elements indexed with i, $0 \leq i \leq n-1$.

But you have to be empathetic toward a panel that writes, perhaps–albeit unrepentantly–with a conciliatory aim in mind, when scolded back for their *lapsus*:

> The last point was just a *possible* advise [sic] for the applicant. It did not effect [sic] the overall scoring.

Bless them. My italics. And long live M&I: I applied again, this year, with the same project, now to FCT's 5th superstar call. But not recursively, if you know what I mean–although this might turn out to be a Sisyphean undertaking.

Online Resources

[1] https://www.fct.pt/apoios/contratacaodoutorados/empregocientifico/ceec_ind_4.phtml.en

[2] http://www.shanghairanking.com/rankings/arwu/2021

[3] https://www.topuniversities.com/university-rankings/world-university-rankings/2022

[4] https://cwur.org/2021-22.php

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[3]The fact that the panel also doubted "to what extent the proposed apparatus of a strongly formal epistemology can make a contribution on our understanding of the notion of truth that improves on deflationism, which simply accepts truth as a primitive" also piqued me, but never mind that.