

# The Competition for Knowledge: Shades of Gray and Rules of Thumb

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## Abstract

All research is immersed in the competition for knowledge, but this is not always governed by fairness. In this opinion article, I elaborate on indicators of unfairness to be found in both evaluation guides and evaluation panels, and I spontaneously offer a number of rules of thumb meant to keep it at bay. Although they are explicitly offered to the Portuguese Foundation for Science and Technology (FCT) and in particular to the evaluation panel for Philosophy, Ethics and Religion of FCT's fifth edition of their Individual Call to Scientific Employment Stimulus, here used as concrete illustrations of unfairness, my rules of thumb are guaranteed to promote fairness in the competition for knowledge in general.

**Key words:** Competition for Knowledge; Fair Trial; Shades of Gray; FCT; Evaluation Panels; Philosophy

ALL HUMANS ARE URGED TO SEEK KNOWLEDGE, a maxim so honorable that it even features in the scriptures of some religions. Belying a central tenet of the Augustinian theory of knowledge, however, it is unlikely that knowledge is handed over to humans by God, by emanation or any other divine methods; nor, to invoke Nietzsche, do we have an organ for knowledge,<sup>1</sup> so that the search for this valuable asset is typically an arduous and slow process, often a discouraging ordeal when taken up professionally (e.g., Powell, 2016). To give just an example, in the beginning of the 20th century the German mathematician David Hilbert presented to the mathematical community 23 problems that he saw as stones in the shoes of mathematicians. While some of these problems were solved relatively soon thereafter

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<sup>1</sup>Two subjects of epistemology that I discuss, at different lengths, in Augusto (2005).

(e.g., the third problem was solved precisely in 1900), some – most famously the eighth problem, a.k.a. Riemann hypothesis – are still unsolved, despite the great attention they have been the subject of by the mathematical community. One problem in particular, the tenth, which concerns Diophantine equations, took 70 years to be negatively solved by Yuri Matiyasevich and we may doubt whether he would have been able to solve it without the prior work of the likes of Martin Davis, Julia Robinson, and Hilary Putnam.<sup>2</sup> This shows that the search for knowledge is frequently a collective and collaborative labor.

It is arguable whether all humans do indeed search knowledge, but, as hinted at above, there is a class of humans who do engage in this search; so much so that they turn this search into a livelihood – modest though it is compared to other professions. Despite the frequent absence of a professional status they are spoken of as *researchers* in English. Researchers are central elements in the *competition for knowledge*. Do not worry if you do not know this concept; I am creating it expressly for this article. Let me sketch what I mean by this: Differently from what is typically the case in other arenas, in the competition for knowledge researchers compete not (first and foremost) for prizes or star-like status, but to produce knowledge, an activity that is reflected in a panoply of accomplishments and milestones: Theories, hypotheses, etc, and tangible items such as books, journal articles, conferences, etc, too, and – even more tangible – also software, machines, medicines, etc, etc. These are, often motivated by patenthood, all in competition with each other and this is one of the senses in which we can use the expression just coined. Another sense is that of competition for the funds available to research. These are more often than not scarce or plain insufficient, sometimes inexistent, and this means that researchers have to compete with their fellow laborers (the *peers*) to be able to produce knowledge when, in fact, they could unite their efforts instead. Although knowledge is a universal asset, researchers compete locally, at country or institution level, on the all too rare occasions of calls for applications, and do so in the hope/belief that their time-consuming applications will undergo a fair trial, because that – a trial – is what an evaluation panel (EP) *de facto* does. It is only understandable that competing researchers expect the members of these panels (the *experts*) to be adequately selected and, upon acceptance of the role, to employ their expertise and justify their fees as conscientiously as possible when trying them. Together with other commonsense policies and evaluation guides issued by the funding institutions, these expectations, if fulfilled, are bound to guarantee fairness in the competition for knowledge.

THE PORTUGUESE FOUNDATION FOR SCIENCE AND TECHNOLOGY (FCT) has recently – 2017 or 2018 [1]<sup>3</sup> – launched a yearly call, the Individual Call to Scientific Employment Stimulus (henceforth just “Call”), which has just completed its fifth edition (see [2]), an accomplishment in itself if we consider the many vagaries that characterize academic institutional projects, FCT’s included, in Portugal. (It is the case there that competition-for-knowledge grand projects frequently fail to meet the initial great expectations and are then dissolved, replaced, renamed, etc.) The idea

<sup>2</sup>See Gray (2001) for a comprehensive account of Hilbert’s challenge and how it has been taken up by the mathematical community.

<sup>3</sup>FCT is actually the acronym for Fundação para a Ciência e a Tecnologia. It is difficult to pin down a specific year for the beginning of the yearly Call that is the main topic of this opinion article; a plethora of vicissitudes contributes to this uncertainty, but see Online Resource [1].

for this Call, whose general aim is “to fund scientific employment contracts for PhD holders based on competitive procedures with an external international peer review process of the applications” (FCT’s *Evaluation Guide*, available on [2])<sup>4</sup>, is simple in essence: Upon evaluation by an international panel of an application submitted online with many components but whose main ones are a CV Synopsis and a Research Plan, an applicant is given a final score (FS) of at most 10 points to be computed by the formula

$$FS = 0.6A + 0.4B,$$

so with weights of 60% and 40% respectively for A,  $B \geq 1$  and  $\leq 10$ , where A and B stand for Criterion A and Criterion B, which in turn stand respectively for Merit of the Candidate and Merit of the Research Plan. Candidates with a final score of 8 or more points might be eligible for “individual support.”<sup>5</sup> But because both criteria are to be assessed indifferently by a strengths/weaknesses table (see Table 1 below) the simplicity of the idea becomes simplism in practice and this highly vague dichotomy is liable to foster equivocation in the evaluation of the applications.

Not living *there* precisely for reasons to do with the competition for knowledge as practiced by FCT, only in early 2020 was I informed that this yearly Call was ongoing. In the belief that an “external international peer review process” carried out by experts in philosophy was likely not to fall into the abovementioned simplism and equivocation (after all, much of the practice of philosophy as a profession aims at removing these two undesirable attributes from reasoning and discourse), I planned to apply; but then the pandemic was declared and I only applied in 2021, in the category – or, as FCT likes to put it, career stage – of Principal Researcher (PR). I did so with a project entitled *Formal Truth Toward a Strongly Formal Epistemology*, whose main output was expected to be well-behaving logical systems (at least one) with a truth predicate capable of avoiding both the semantic paradoxes feared by Alfred Tarski and the equally undesirable infinity of languages postulated by him. While taken generally this is a project in epistemology in the philosophy of science – the core constructs are scientific theories and the main concept is truth – it recruits methods from diverse areas, namely mathematical logic, the philosophy of logic, and computability theory.

This exceedingly time-consuming application was rejected in a meager report with solely 400 words approximately that despite this extreme verbal scantiness manages to display not only simplism and equivocation, but also internal or self-generated issues; the former two aspects can have been induced by FCT itself to a significant extent. The rules of thumb I am about to provide spontaneously to FCT and its EPs, in particular in philosophy but adoptable in or adaptable to any other field, are meant to assist them, with fairness in view, in the selection of the members of the EPs, in the guidelines for their evaluation tasks, and in the fulfillment of these tasks.<sup>6</sup> I begin precisely with the first ones.

<sup>4</sup>More concretely and restrictively, the Call “is aimed at providing individual support for hiring 400 researchers holding a PhD degree in any scientific area” (*ibid.*).

<sup>5</sup>Two caveats, though: The number of applicants to be funded is previously settled (400), so that – and consequently – an application with a final score of 8 or more points might be rejected.

<sup>6</sup>These rules of thumb, just like FCT’s evaluation guidelines, are good-for-all rules, holding for the other three career stages considered in the Call, to wit, Junior Researcher, Assistant Researcher, and Coordinating Researcher. Other rules are not suggested, but FCT should seek advice on a few other subjects, among which the updating of their scientific pigeonholes is not the least one.

*Rule of Thumb 1*

Despite the fact that simplism and equivocation, among other problems (see Augusto, 2022), were omnipresent in both the first evaluation report and the reply to my evaluation review request in the fourth edition of FCT's Call, I applied for this year's Call. It goes without saying that I was not aware that the EP was not to be freshly constituted; I would not have applied again otherwise. In effect, 13 out of 18 members of this year's EP (Chair included) were in last year's 21-member-strong EP. The first rule of thumb is offered to FCT:

- (R1) *EPs for fair competitions for knowledge should be constituted anew after completion of each call.*

Otherwise, you, the calling institution, are discouraging candidates from reapplying in subsequent calls. In other words, you are removing them indefinitely – when the payment of their bills is due every month – from the competition for knowledge that you are proclaiming to be fostering without bias and discrimination, and that is not commendable. (To be sure, experts come in limited numbers and they are often hard to come by, so that repetitions are sometimes needed. No problem; just do not select the same experts before, say, 5 years have elapsed since their last membership in a given EP. Use combinatorial techniques.)

Yet other problems are raised by disregarding R1: The EP (*i*) might not really bother to evaluate reapplications, finding that it suffices to make minor changes to their previous report (or reports, depending on the degree of recidivism of the candidate), and (*ii*) might be annoyed at the bold insistence of the recidivist candidate and show it by lowering their previously granted score. Humans are lazy and vindictive (as Terence put it, “*humani nihil a me alienum puto*”), and indeed this year's evaluation report of my application is immediately recognizable as a poor editing of last year's (that is how I realized that R1 was not in practice) and from an FS of 7.83 in 2021 I was downgraded to an FS of 6.84 points in this last edition – this, alas!, when the few (but not all minor) changes made to the application were expected to earn me at least an additional point with respect to the previous score.

But are the members of the EP at all equal to their evaluation tasks? The next rule of thumb, the second, falls on the selection criteria for the members of the EPs.

*Rule of Thumb 2*

- (R2) *Minimal objective criteria for membership in EPs must be established and respected.*

By “objective criteria” I mean figures, not vague expressions like “leading scientist”; by “minimal objective criteria” I thus mean the lowest figures that will allow an individual to be selected for membership in an EP. Many such criteria come to mind, but I shall discuss only a few. No one is an expert in their fields before at least approximately 10 years have elapsed since they started their activity in them (e.g., Ericson et al., 2007); academic Spring chicken should not act as EP members. Other minimal figures must be established, to wit, a minimal number of publications and a minimal citations/publications ratio (CPR) as provided by a reliable citation-metrics database. Scopus ([3]; deplorably not entirely open access) is a bit too strict in its

indexing criteria, but it is better to play on the safe side, so let us stick to it. I propose that the minimum number of properly indexed publications that allows for a classification of a scholar as an expert and the minimum acceptable CPR to this effect be, respectively, 50 and **5**. My proposed CPR is not easily satisfiable but certainly not as stringent as the Field Citation Ratio (FCR), the Article Citation Rate (ACR), the *h*-index, etc; in particular, it is mostly quantitative – and potentially skewed (e.g., a few articles with many citations) –, though Scopus' severe indexing criteria lend to it the required qualitative dimension.

Access to the public web pages of the members of the 2022 EP for Philosophy, Ethics and Religion (henceforth simply “EP”) showed that some of them are Spring chicken in the academic sense, but I shall focus on the CPR instead. (Incidentally – but I shall be using this later –, my present CPR is **6.00**; it was **5.57** when the application was submitted.) Of a total of 18 (!) members in the EP only 4 have a CPR equal to or greater than **5**. I list them in decreasing order of CPR:<sup>7</sup>

M.S. (Madrid): **18.52**; E.B. (Dublin): **14.90**; M.E. (Lausanne): **12.39**;  
T.M. (Nijmegen): **5.00**

Of these, however, only M.E. (Lausanne) fully satisfies the criteria at hand, with 69 publications indexed by Scopus. The following data – PCR<sub>s</sub> (in red), also presented in decreasing order – show that most of the members for the mentioned EP were ill-selected:

F.B. (Bologna): **4.84**; S.R. (Leipzig): **3.77**; W.H. (Parma): **3.48**; M.Z. (CU): **2.52**; M.-L.F. (Innsbruck): **1.58**; P.O'G. (Dublin): **1.38**; M.P. (Jena): **1.27**; J.-P.A. (ENS): **1.17**; G.C. (Turin): **0.94**; J.L. (Zurich): **0.64**; P.V. (Milan): **0.29**; G.M. (Bremen): **0.25**; P.N. (Tours): **0.00**

With the exception of M.Z. (CU), who has 71 publications indexed by Scopus, all the other above red-listed members of the EP fail – often dramatically – to have the minimal number of publications stipulated above. One of the members of the EP, to wit, P.N. (Tours), simply appears not to be indexed by Scopus, which might mean that they have no publication considered to be worth indexing by this database; this is then a PCR of **0.00**.<sup>8</sup>

<sup>7</sup>For graphical convenience, I give only the initials of their first name and surname, in this order; I also add the location of their university or, instead, the abbreviated initials of their academic institution (e.g., “ENS” stands for “*École Normale Supérieure*”). The list of all the members of the EP is available on Online Resource [2]. The data here provided were accessed on Scopus in the first two weeks of August 2022.

<sup>8</sup>To use another metric for the sake of comparison, the Scopus *h*-index of the members of the EP ranges from “not available” to **15**. (The *h*-index is the largest number *h* such that *h* articles by a given author have each been cited at least *h* times. John E. Hirsch, who firstly put forward this metric for measuring and comparing the overall productivity of individual scholars (Hirsch, 2005), considered that after 20 years of researching in a given field 20 would be a “good” *h*-index. More humbly, the “acceptable” *h*-index begins at **3** – but this is not official, if you know what I mean.) These are the *h*-indices of the members of the EP (Chair not included, but see below): M.E. (Lausanne): **15**; E.B. (Dublin): **13**; M.S. (Madrid): **11**; M.Z. (CU): **7**; S.R. (Leipzig): **5**; F.B. (Bologna), T.M. (Nijmegen), W.H. (Parma): **4**; J.-P.A. (ENS), M.-L.F. (Innsbruck), P.O'G. (Dublin): **3**; G.C. (Turin), J.L. (Zurich), M.P. (Jena): **2**; G.M. (Bremen), P.V. (Milan): **1**; P.N. (Tours): not available. Interestingly enough, it is easy to see that this ordering is roughly the one using the PCR. (By the way, my current *h*-index is **3**.)

To be sure, one should sometimes be flexible and perhaps relax these minimal objective criteria under some circumstances (e.g., there might be no Sanskrit expert satisfying them), but FCT clearly did not consider *any* such criteria when selecting the very Chair of the EP (FCT's uppercase "c"), who has among other responsibilities the constitution of the EP on their shoulders:<sup>9</sup> C.F.vonV. (Bergen), a presumable expert with a tricky name to abbreviate who has been the Chair of the EP since 2019 and was before that a regular member thereof since the very first Call, has solely a single, non-cited publication indexed by Scopus and hence a CPR of **0.00** (and an *h*-index of **0**, too). (Could this be? I checked their CV and, in effect, there is a large number of publications in German, in particular articles – many, really – in the *Kant-Lexikon in drei Bänden*, one of whose editors is G.M. (Bremen). *Geil!* But the kind of publication that Scopus does not bother to index spontaneously.)

Mimicking an awkward, quasi-English formulation of the EP when evaluating my application,<sup>10</sup> this is not a good basis for the constitution of an EP.<sup>11</sup> The overall inadequacy of this EP might account for the fact that, despite completed by a group of philosophers, the evaluation report on my application was characterized by simplism and equivocation. This takes me to the third rule of thumb.

### *Rule of Thumb 3*

(R3) *Simplism and equivocation in the evaluation guidelines for the EP must be avoided at all costs.*

At some developmental stage (usually in kindergarten) humans learn that reality is not exclusively and exhaustively good or bad, black or white, etc, and we move away from our infantile ethical-ontological simplism to expect not only punishment or reward but many and diverse reactions to our agency, indifference included. As able grown ups, we hardly expect to be judged on the simplistic dichotomy strengths/weaknesses, in particular in competitions for knowledge. Notwithstanding the fact that the guidelines conceived by FCT for this competition of knowledge mention many aspects for the evaluation of both the Merit of the Candidate and the Merit of the Research Plan, in the end the members of the EP are required to stick to a summary evaluation that, despite its pompous caption ("Qualitative descriptors associated to the 10-point scale"), is based on this simplistic opposition – here emphasized with colors, precisely two (see Table 1).<sup>12</sup>

This quasi-binary picture is indeed proof that any fuzzy valuation, just like any other many-valued valuation, can be reduced to a bivalent interpretation (see "Suszko's Thesis" in Augusto, 2020), and the authors of this table are to be congratulated for the fineness with which they managed to convey this to us in only so many shades of gray. In effect, one thing is to be exceptionally strong and with no weaknesses and yet another to be just strong with several moderate weaknesses, not to mention having

<sup>9</sup>I refer the reader to FCT's *Evaluation Guide* (available on [2], p. 8) for the long list of tasks that are expected to be fulfilled by the Chair.

<sup>10</sup>The EP wrote: "TThis [sic] is not a good basis for the level of principal researcher."

<sup>11</sup>To this inadequacy contribute also the aspects bearing on philosophical traditions/divides discussed below in relation to rule of thumb 7.

<sup>12</sup>Blue and red were chosen for their familiar associations with reward and punishment, respectively, in the academic world. The reader can easily replace blue by white and red by black (or the other way round) and apply then the shades of gray suggested by FCT's table.

Table 1: FCT’s shades of gray. (Source: FCT’s *Evaluation Guide*, p. 7, available at [2]. Original table modified with two colors. Original caption: Qualitative descriptors associated to the 10-point scale.)

Classification	Score	Strengths/Weaknesses (guidance for criteria evaluation)
Outstanding	10.0	Exceptionally strong with no weaknesses
Extremely high	9.0	Extremely strong with/one some negligible weakness(es)
Very high	8.0	Very strong with one/some minor weakness(es)
High	7.0	Strong with at least one moderate weakness
	6.0	Strong with several moderate weaknesses
Medium	5.0	Some strengths with significant weaknesses
	4.0	Some strengths with several major weaknesses
Low	3.0	Few strengths and major weaknesses
	2.0	Very few strengths and serious weaknesses
Fail	1.0	Cannot be assessed

very few strengths and serious weaknesses.<sup>13</sup> We all fuzzily get the shady differences, but of course the devil is in the details and here the members of the EP are given none, so that no one can blame them for resorting to their imagination, inclination, *mala leche*, *emmerdement*, or whatnot that does justice to the psyches of the exclusively European nationals in the “international” EP to fill in the gaps with their own details.<sup>14</sup>

With respect to the evaluation of the Merit of the Candidate (Criterion A) applying for a contract as PR, a research stage defined in its *Evaluation Guide* as “PhD holders for over 12 years with relevant curriculum in the scientific area of the application, demonstrating some scientific independence for the last 3 years,” FCT appears to identify implicitly a list of *qualitative-description carriers*, ranging from scientific productivity to the applicant’s motivations and career perspectives, and even interruptions (see *Evaluation Guide*, p. 6). Of course, not all of them can be evaluated in a “Yes” (Tick) or “No” (No tick) way, but this would be preferable to letting the EP generate from this overly eclectic list comments that appear to be valueless or neutral, indicating neither strengths nor weaknesses. For instance, in the case of the 419-word-long short report (174 + 245 words for the evaluation of Criteria A and B, respectively) on my application, the EP writes on my merit as a candidate: “Nearly all the [candidate’s] books are introductory books in the field of logic published with College Publications in London.” I am at a loss as how to interpret this statement, not the least because it is placed between a statement praising the fact that I have “an impressive publication list that includes numerous books and published journal articles” and the criticism that the “articles are not in first rate journals” (more on this untruth below). An equivocal comment, then, I daresay.

Given this abuse of equivocation and with exhaustivity in mind a tick table appears indeed to be a more adequate means to evaluate Criterion A than letting the EP

<sup>13</sup>I particularly like this contradiction-inducing “very few strengths,” but it would perhaps be better phrased as “(very) low number of strengths” or even “negligible (number of) strengths.”

<sup>14</sup>There would be a lot to muse on the reason(s) why in this Call “international” appears to mean “European,” but I am letting FCT get away with this one for now; in the discussion of rule 7 its potential impact on the evaluation of an application in philosophy is touched upon.

ramble in this way. For instance, I have won two prizes in my career, but there is no mention of that by the EP. It is indeed the case that it appears that the EP does not have to check the candidate's CV as provided along with all the other paperwork (a typo in the *Evaluation Guide* makes this an inconclusive thing)<sup>15</sup>, and I did not provide these details in my CV Synopsis for the reason that I had more strength-enhancing data to give in a word-limited self-praising text. However, to the EP it appears that this is the ideal means, as the first half of their report on Criterion A is essentially just a summary – with inaccuracies – of the most basic points in my CV Synopsis (Ph.D., postdoctoral experience, etc). In this, I write about what I consider to be my main scientific contributions, but this is not commented upon by the EP; I write about how in the last few years I have been disseminating knowledge and promoting scientific practices, but this is not commented upon; etc. These omissions might indeed be motivated by the eclecticity of the listed items to be evaluated, but they are ultimately to be blamed on the EP. I thus move on to offering rules of thumb to this congregation, which I singularize or pluralize, whatever is more convenient.

#### *Rule of Thumb 4*

The first of these rules has a biblical tone to it, but that is just a coincidence:

(R4)        *The EP shall not lie or assert untruths.*

Lies are indeed short-lived. Take the EP's report; they write: "a large part of the references [in the Research Plan] is to the own work of the applicant (which is, however, neither published in internationally recognized journals nor discussed by the community in the field [of epistemology and philosophy of science])." *This is a bold-faced lie.* Raising the bar and thus omitting other journals, Scopus indexes my work published in *Consciousness and Cognition*, *Advances in Cognitive Psychology*, *Axiomathes*, *Idealistic Studies*, and *Trans/form/ação*. These journals have, as computed by Scimago Journal Rank ([4]; free access) and to provide objective metrics, *h*-indexes of **113**, **32**, **22**, **6**, and **5**, respectively, hence the EP are lying when they write that my work is not published in internationally recognized journals. The EP are equally lying when they claim that my work is not discussed by the community in the field; this can easily be proven to be an untruth by checking my author profile in Scopus or other publication databases (e.g., Semantic Scholar [5]) to give objective citation metrics, but there are other disprovers publicly available.<sup>16</sup> I hope the members of the EP agree that discussion is strongly correlated with citation in scholarly publishing, but there are more obvious indicators that my work is indeed discussed. For instance, my work in this journal has been abundantly discussed by both scientists and philosophers. (I refer the reader to *JKSS* 2(1), *JKSS* 2(2), *JKSS* 3(1), and *JKSS* 3(2).) These untruths, if not meant to be lies, could have been avoided by a simple Google search, or, more conveniently, by reading the application thoroughly.

This takes me to the next rule of thumb.

<sup>15</sup>"The CIÊNCIAVITAE CV contained in the application is only informative and *will not to be assessed*." My italics identify the typo (possibly a grammatical mistake?).

<sup>16</sup>In the application, I duly informed the EP that Scopus indexed 7 articles of mine and these had 39 citations. So, a CPR of **5.57**. It should be obvious that self-citation alone could not account for this CPR; given that Scopus only indexes scholarly publications, some scholars must have cited my work.



*Rule of Thumb 5*

(R5) *The EP must read thoroughly the candidate's application.*

Untruths are likely not always meant to be lies, but they may just originate in a superficial or unsuccessful reading of the applications. R5 just means: *Read the damn application!* An illustration of the need for this rule of thumb: In their report, the EP write that “[t]he applicant does not sketch any strategies for the dissemination of his work within a broader academic [sic] community or beyond.” The EP consider this to be relevant, because, and I quote, “There hence is a risk that the project will create its own << niche >>.”<sup>17</sup> But I wrote: “A series of publications, among other events (talks, conferences, etc.), is planned and will timely take place. The completion of Step 1 is an ambitious objective that requires collaboration among peers, and I plan to mobilize experts for several activities, in particular the publication of edited collections of essays.” The EP write also: “The methodology of the project remains unclear: (...) it remains unclear how these issues are addressed precisely and how this project is integrated into the ongoing international research in epistemology and philosophy of science.” But I wrote, for instance:

[T]ruth as applied to statements is a property that comes in degrees or kinds, often for reasons to do with our use of natural languages. For instance, while the statements “S has acne” and “S has folliculitis” can be said to have the same kind, but a different degree, of truth, “They saw the morning star” and “They saw the planet Venus” can be said to exhibit the inverse pattern. Whether in degrees or kinds, truth can be formalized by means of predicates that are firstly conceived as members of ordered sets (e.g.,  $\{T_0(\cdot), \dots, T_{n-1}(\cdot)\}$ ) and partitions thereof; this will allow an interpretation from the viewpoint of algebras and associated structures (e.g., lattices) and transformations (e.g., morphisms). Hence, the methodology here is mostly that of ordered-set based mathematical logic, already researched in Augusto (2020b), allied with algebraic semantics (e.g., Blok & Pigozzi 1989), a combination that has proven highly relevant in both mathematical and philosophical logic (Dunn & Hardgree 2001, Rasiowa 1974).<sup>18</sup>

In the above passage, in due detail and with examples I inform the PE that truth is indeed a property, but not an all-or-none property, either in degree or kind, and this characterization of truth as a property will be approached from an algebraic viewpoint based on set-theoretic ordering. This shows that the EP’s first criticism above is unwarranted. I also inform the EP, by means of citations, that this methodology, with which I am already very familiar, has been fruitfully applied in both mathematical and philosophical logic. Moreover, I write in another passage of my application: “a big divide is to be found under it [formal treatment of truth] between axiomatic and semantic theories of truth, the former associated to deflationism, the stance that truth is not a definable property (e.g., Cantini 1996, Halbach 2011), and the latter being the view that truth is a property of sentences (Tarski, 1935).” Does this and the

<sup>17</sup>Note the French quotes.

<sup>18</sup>Citations in quotations are not listed in the References.

above, as well as other passages from my application, not show how, and re quoting the second concern above for convenience, “this project is integrated into the ongoing international research in epistemology and philosophy of science”? I should think it does. But perhaps the EP think that truth, and in particular the problem of formal truth (as I call the above divide in the formal treatment of truth), is not a theme in epistemology and the philosophy of science?

Or, perhaps, there is a comprehension gap and/or a lack of expertise to evaluate my application? This motivates my next rule of thumb.

*Rule of Thumb 6*

(R6) *The EP must be honest with respect to comprehension gaps and/or lack of expertise.*

A superficial verification of the research interests and areas of expertise of the members of the EP shows that none of them should have felt qualified to assess my application. If no member of the EP knows about order theory, abstract algebra, recursion theory, etc, let alone how these can be recruited in formal philosophy, then the Chair should have requested an additional, adequate reviewer for my application, as observed in the *Evaluation Guide* (p. 8, item 5 of the responsibilities of the Chair)<sup>19</sup>. Instead, in what they later called an “advise” [sic] in their second report, the EP firstly wrote: “Perhaps the emphasis of the project is so much on the formal and computational side that an application in the panel ‘Mathematics and Computer and Information Sciences’ would have been more suitable.” (This when FCT’s *Evaluation Guide* (p. 12) disallows any comments by the EP providing “recommendations or advice for improving the application.”) An admission – that wasn’t – of a comprehension gap and/or lack of expertise. This, however, might be connected to a deeper problem that affects contemporary philosophy, to wit, the co-existence of ways of doing philosophy that not only do not intercommunicate, but also dismiss each other in what often falls into rivalry. Sad, but there you are, and not only in philosophy; for instance, the rivalry cognitivism vs. behaviorism is alive and kicking in psychology, despite the odd attempt to reconcile them. Hence rule of thumb number 7:

*Rule of Thumb 7*

(R7) *The EP must not exhibit subject and/or methodological bias or prejudice for/against traditions, paradigms, interpretations, etc.*

If the reader does not already know this, then I tell them that there are two main ways of doing (traditions, for short) philosophy, to wit, Continental and analytic, and this constitutes a contemporary divide in the field.<sup>20</sup> *Truth* is indeed a core subject of philosophy, but *formal truth* is not a core subject of Continental philosophy. Formal truth, the main subject of the Research Plan I submitted in the application here in discussion, is a core subject of yet another – albeit not major – tradition, to wit,

<sup>19</sup>Quoting: “Suggesting external reviewers who may provide an additional assessment of specific applications, namely multi/interdisciplinary applications, whenever a particular expertise is not covered by the panel”.

<sup>20</sup>One could as well speak of paradigms or approaches. Taken strictly academically, the discussion soon turns sour, reason why less strict discussions of the divide might be more adequate; see, e.g., Jones (2009).

formal philosophy, and, to a lesser degree, of analytic philosophy. This and other commonalities make it so that the relations between formal and analytic philosophy are to a large extent collaborative.<sup>21</sup> The generalized, though by no means absolute, lack of commonalities not only in methodology but also in subjects between Continental philosophy and formal philosophy make it so that representatives of these two traditions rarely communicate, and on the few occasions they do so end up talking past each other.

Shortly put, the EP selected for this Call appears to exhibit what R7 aims at preventing: Subject and methodological bias or prejudice. After a summary of my research plan, a feature disallowed by the evaluation guidelines (cf. *Evaluation Guide*, p. 12), the EP writes: “The project certainly is ambitious, although it focuses quite narrowly on a highly technical question.” It is precisely one of the distinguishing features of formal philosophy that researchers frequently focus narrowly on highly technical questions and that this narrow focus constitutes the core of large (or ambitious) projects.<sup>22</sup> The problem of formal truth is one such focus. The use of the conjunction “although” by the EP shows explicitly ignorance, implicitly criticism, of this feature. But if this is not enough to conclude on what seems to be a case of Continental bias, the following quotation will certainly suffice: “It remains, however, doubtful to what extent the proposed apparatus of a strongly formal epistemology can make a contribution on our understanding of the notion of truth in scientific theories and the theory of knowledge in general.” But I wrote in my motivation letter:

Taken from the viewpoint of logic, theories are sets of statements closed under logical consequence. In order to treat theories from this viewpoint it is typically believed that it suffices to assert statements formalized as “p” and then submit them to some calculus for decidability. But sometimes it is necessary to make the strong assertion that p is true; for instance, when there are caveats or exceptions, so that one specifically states that “p is true, but. . .,” or when there is doubt concerning the veridicality of p. This, however, is at the root of incompleteness or vacuity, depending on different authors. In this divide that constitutes the Problem of Formal Truth, theories (as well as knowledge bases with rules of the form “if . . . then”) are analyzed under the conditions postulated by formal epistemology. I see in a formal epistemology that analyzes knowledge from the viewpoint of strong assertions—a strongly formal epistemology—a means to approach theories that will eventually contribute to implementing knowledge technologies that will both preserve epistemic requirements, often dismissed or ignored in the recent phenomenon of the industrialization of knowledge, and facilitate interaction with human users. In doing so, my project fosters the attainment of Goal 9 of the United Nations Sustainable Development Goals (2030 Agenda).

Importantly, the above divide in philosophy happens to have a geographical distribution, with European universities largely practicing philosophy in the Continental

<sup>21</sup>Also, the employment of so-called formal methods and notation shared with other fields like mathematics, computer science, linguistics, etc, is in this tradition substantially more visible than in the analytic tradition.

<sup>22</sup>See, e.g., Hansson & Hendricks (2018).

tradition (“Continental” means precisely “European”), and universities in Anglo-Saxon areas of the globe like the UK, the USA, and Australia essentially favoring the analytic tradition. The “international” EP for this fifth edition of FCT’s Call has not a single member from the UK, but this does not appear to be a post-Brexit thing.<sup>23</sup>

I END WITH A FEW REMARKS ON PHILOSOPHY IN PORTUGAL AND ITS RECENT EROSION. Portugal managed to overturn an authoritarian regime in 1974; before this revolution, the relations between the dictatorship and philosophy had been uneasy, especially at university level. Things became much better thereafter, but not exactly a bed of roses, with philosophy being the target of occasional onslaughts that undermined it in the eyes of the public in general and of the students in particular (for instance, philosophy exams being dismissed as irrelevant to university admittance). With the realization, largely made possible by the Internet, that philosophy was not only more than its Western history but also practiced under methodologies and in traditions other than the so-called Continental philosophy, some Portuguese members of this research community were bold enough to try their hand at these ways of doing philosophy, namely analytic philosophy and formal philosophy. It took many years and a herculean effort for these scholars to be able to output satisfactory work and begin to be recognized internationally. That this landscape is now eroding is to be blamed largely on FCT’s competition-of-knowledge ways in the last decade or so and on this Call in particular, in line with those ways. Last year, out of 27 candidates in the category PR only a handful appeared to be Portuguese, to judge by the names, and of these I was the best ranked, the ninth. Out of 14 applicants in this category to this last Call only two were Portuguese; we were ranked eighth and ninth. Since the very first Call, this competition of knowledge has been characterized by the suspicious non-representativeness of Portuguese candidates in a Call that takes place in Portugal; that I know of, never was a Portuguese candidate to a contract as PR in Philosophy, Ethics and Religion in a Portuguese institution successful in this Call, but a few non-nationals were luckier. It might be predicted that next year there will be no, or just the odd, Portuguese candidate in the category PR, unless FCT announces changes in its ways conforming with the rules above. *Do you not see what is happening?* This growing discouragement of scholars who a few years ago were part of an emerging research community but are now shying away from applying to this Call is to be blamed on both the simplism and equivocation that characterize this Call in general, as well as on the simplistic and equivocal evaluations of a persistent(ly) inadequate EP with only some strengths but several major weaknesses.

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<sup>23</sup>To be sure, the selection of one or more scholars from the UK does not alone guarantee the required impartiality prescribed by R7, but it would be a sign of willingness to unskew the EP.

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## Online Resources

- [1] [https://www.fct.pt/apoios/contratacaodoutorados/empregocientifico/ci\\_dez2017.phtml.en](https://www.fct.pt/apoios/contratacaodoutorados/empregocientifico/ci_dez2017.phtml.en)
- [2] [https://www.fct.pt/apoios/contratacaodoutorados/empregocientifico/ceec\\_ind\\_5.phtml.en](https://www.fct.pt/apoios/contratacaodoutorados/empregocientifico/ceec_ind_5.phtml.en)
- [3] <https://www.scopus.com/home.uri>
- [4] <https://www.scimagojr.com/index.php>
- [5] <https://www.semanticscholar.org/>

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