(4004 words, excluding bibliography and footnotes).

Score-keeping in virtue-games: A *contextualist* strategy of theory-selection in meta-philosophy.

i. Motivation

'Meta-philosophy', in contemporary academic parlance, denotes the philosophic study of philosophy (Vasilyev, 2019) – the "philosophy of philosophy", as it were. A natural location for the meaning of 'philosophy' is, perhaps, in the methods utilized, and the goals pursued, by philosophers. Philosophy, in this sense, is what philosophers pursue, and how they methodologically constrain that pursuit. This need not, however, convey any "real" discontinuity between philosophy and other intellectual fields of enquiry in terms of methods utilized, or domains inspected. Indeed, Williamson (2013) argues extensively against such discontinuity. Notwithstanding the prospects of nominalism about discontinuity, methods-wise or goals-wise, between what is called 'philosophy' and fields of enquiry named otherwise, we are, I believe, entitled to a certain realism at least about the *appearance* of discontinuity between not just philosophical and scientific methods, for instance, but also between given philosophical methods. Rosenberg (2013) argues, pace Williamson, that any nominalism about the demarcation of certain philosophical methods from at least the empirical methods of the natural sciences, is misguided. This sort of disputes about how philosophical methods and objectives are "natured" remains characteristic of much meta-philosophy. Insofar as the dispute concerns primarily the methodology of philosophy, as opposed (but not disconnected), for instance, to its aims or broader liaisons with other disciplines, it belongs to the sub-field of meta-philosophy often called "philosophical methodology".

Let us denote by 'methodological normativism' the thesis that part of the business of philosophical methodology consists in examining or influencing norms understood to determine, at any given time, methods actually used in philosophy. For the value of methodological normativism to be adequately recognized, there should exist a relatively standard "system" in which one evaluates competing views on how, and why, philosophical methods may be reformed. No such system appears to be standardly recognized, and the consequence is an unpalatable prolongation of debates on norms philosophers, as a matter of fact, follow in implementing philosophical methods. I will seek to develop, in what follows, a *contextualist* principle of arbitrating competing methodological proposals in meta-philosophy using insights well-entrenched in meta-metaphysics. In other words, I seek to discuss a possible way, afforded by meta-metaphysics, of *systematizing* methodological normativism.

ii. Quasi-scientific theory-selection and score-keeping in simplified virtue-games

Consider a hypothetical debate in philosophical methodology which two imaginary philosophers, Dr. Williams and Dr. Rose, are engaging in. Dr. Williams, say, is convinced that philosophical methods are "really" no different from methods used in many other fields of inquiry. According to his "anti-exceptionalist" theory of philosophical methods, philosophers use methods which are, despite appearances to the contrary, more similar than not, to empirical methods used by scientists. Dr. Rose, who is pleased to call himself a "naturalist", proposes an exceptionalist theory of philosophical methods according to which such methods are significantly, if not utterly, distinct from empirical, scientific methods. Further, Dr. Williams accuses part of Dr. Rose's exceptionalist theory as sometimes describing the same method as both naturalistic and non-naturalistic, and hence, of inconsistency. Dr. Rose, defends himself from this accusation – plausibly indicating his recognition of consistency as a "theoretical virtue". Dr. Williams, however, had made a true accusation. Indeed, Dr. Rose's otherwise astute naturalistic theory has the consequence that the methods of mathematics, for instance, are both naturalistic and non-naturalistic. Dr. Williams further accuses his opponent's theory as lacking in another theoretical virtue, namely,

"qualitative ontological parsimony". While his own theory implies the existence of one fundamental method of which methods in philosophy and the sciences are instances, his opponent proposes a theory implying a fundamental distinction between those methods. That is, Dr. Rose's theory is committed to the existence of more than one fundamental *kind* of methods. Ceteris paribus, Dr. Rose's theory urges us to believe in a greater number of fundamental kinds of methods than does Dr. Williams'. This accusation is false, and Dr. Rose happily demonstrates so. Happily, because he finds qualitative ontological parsimony to constitute another theoretical virtue. Further, the two philosophers disagree about which properties of theories other than consistency and qualitative ontological parsimony make them virtuous. Lastly, Dr. Williams' theory, though occasionally counter-intuitive, is remarkably consistent, and highly regarded for that reason.

At present, we specify nothing more about this debate between Dr. Williams and Dr. Rose. Can this hypothetical debate, strictly as specified above, be resolved using the sort of "quasi-scientific" criteria meta-metaphysics prescribes for theory-selection in metaphysics? We now spell out, in some detail, an affirmative answer to this question. We proceed in two distinct stages. In the first, we characterize the minimal region of agreement between Dr. Rose and Dr. Williams with respect to "theoretical virtues". In the second, we test whether, and to what extent, their respective theories possess the *relevant* theoretical virtues. Owing, in large part, to how purposively simple our specifications were, we see that both Dr. Rose and Dr. Williams value consistency and qualitative ontological parsimony as a "theoretical virtue". That is, they both think being consistent, for instance, is one way in which theories become "virtuous", and other things held equal, we should invariably prefer theories more virtuous than its competitors. Similar comments apply, as well, to the theoretical virtue of qualitative ontological parsimony[1]. Proceeding now to the second stage, we test whether, and to what extent, our hypothetical theories possess the relevant virtues. The set of "relevant" virtues, in this instance, comprises all, and only, those properties which Dr. Williams and Dr. Rose commonly regard as theoretical virtues, namely, consistency and qualitative ontological parsimony. An explanation for this notion of relevance will be provided shortly. For now, we summarize, and make sense of, the hypothetical data at hand:

- Disputants: Dr. Williams (WILLS), Dr. Rose (ROSE).
- Relevant virtues: Qualitative ontological parsimony (QLOP), consistency (CONS).
- Virtue-matrix rules: Assume i, j and k are natural numbers. Assign each row a unique natural number. Assign each column a unique natural number. No two distinct rows are assigned the same number. No two distinct columns are assigned the same number. Define a bijection f from the set of rows to the set of relevant virtues, such that each row i represents the virtue f(i). Define a bijection g from the set of columns to the set of disputants, such that each column j represents the disputant g(j). Define the value of cell (i,j), corresponding to row i and column j, as either '1' or '0', such that the value is '1', if and only if, g(j) satisfies f(i) *strictly more than* g(k) does, whenever k is not equal to j.
- Virtue-matrix:

	1. WILLS	2. ROSE
1. QLOP	0	0
2. CONS	1	0

- Virtue-score rules: For each natural number i, the virtue-score for g(i), is the sum of the values in the cells (k,i), where k is a natural number.

[1] A theory is consistent, iff, the conjunction of all its constituent sentences fail to entail a logical contradiction. A theory has more (or less) qualitative ontological parsimony than another theory, iff, the former's being true implies the existence of lesser (or more) fundamental *kinds* of things than does the latter's.

- Virtue-scores: Score (WILLS) = 1, Score (ROSE) = 0.
- Virtue-game rules: Disputants with the greatest virtue-score are winners of the virtue-game.
- Winner of the virtue-game: Dr. Williams.

In the above interpretive summary of the Williams-Rose debate, we have described the debate as a virtue-game, and identified *score-keeping* in that virtue-game with the evaluation of whether, and to what extent, Dr. Williams' and Dr. Rose's theories are "relevantly" virtuous. Lastly, the theory which, given our previously specified hypothetical data, merits selection as the more virtuous option, is interpreted as *winning* the virtue-game. In our simple virtue-game, Dr. Williams came out as sole victor. In practice, however, things are not nearly as simple. Our account being so simplistic and elliptical admittedly leaves a lot about virtue-games to be articulated more clearly. The account is intended merely for ready reference, in much of what follows, to some demonstratively salient properties of virtue-games and quasi-scientific theory-selection. I shall devote the remainder of this essay to developing a precise, and more comprehensive, account of what quasi-scientific ways to assess competing theories are, and of virtue-games able to "mirror" such assessments of *normative* (as opposed to strictly descriptive) theories.

iii. What, really, are virtue-games? And when do we play one?

I have been talking loosely about quasi-scientific criteria for selecting amongst theories, and about something I have called a "virtue-game". Let us presently attempt to make that talk more precise. By 'theory', I mean to denote what is logically entailed by some well-specified set of declarative sentences. A entails B just in case no logically possible world exists where A is true, and B is false. A logically possible world, for our purposes, is a possible world where the laws of *classical* logic hold. For instance, consider the singleton set R = {'Amy went to John's house and John went to Bob's shop'}, consisting of the declarative sentence, 'Amy went to John's house and John went to Bob's shop'. Construing 'and' as the truth-functional connective for conjunction familiar from classical propositional logic, we identify three distinct logical entailments of this sentence: (a) 'Amy went to John's house and John went to Bob's shop', (b) 'Amy went to John's house', (c) 'John went to Bob's shop'. In any logically possible world where the sentence in R is true, sentences (a), (b) and (c) are true as well. So, the theory "generated" by R is the set Th(R) = {x: x is a member R, or x is logically entailed by some member y of R} = R U {(a), (b), (c) … }. In the present context,two declarative sentences are the "same" iff they mean the same, i.e., iff, they are intensionally equivalent. Hence, sets R and R' of declarative sentences are equal, iff, there exists a bijection r from R to R' such that for each i in R, i is intensionally equivalent to r(i). Mere logical equivalence fails, for our purposes, to suffice for identity of meaning. If a set X of declarative sentences generates a theory Th(X), then X is the set of axioms, or assumptions, of Th(X). Assuming, in this instance, that theories are sets, we stipulate that two theories are ontologically distinct, iff, at least one of the theories is not a subset of the other. But even if two theories are subsets of each other, they are ideologically distinct if there exists a concept C that figures in exactly one of them. For each non-empty set X of declarative sentences, there is exactly one set En(X) =UEn(i)[2], where i belongs to X, and En(i) is the set of all logical entailments of i. Note, En(X) = Th(X), for each non-empty set X of declarative sentences. Also, Th(X) and Th(Y) are ontologically equivalent, iff, Th(X) = Th(Y). Hence, whenever two theories are not ontologically distinct, they are ontologically equivalent. It follows, then, that theory Th(X) is ontologically equivalent to Th(Y) whenever X = Y. Lastly, Th(X) is ideologically equivalent to Th(Y), just in case Th(X) and Th(Y) are not ideologically distinct. Intuitively, theories are ideologically distinct just in case, they describe a domain with different sets of concepts; while theories are ontologically distinct

[2] 'U', in this notation, denotes generalized set-union. So UA = {x: x belongs to a, for some a in A}.

just in case, they are different descriptions of some domain.[3] A declarative sentence describing what is the case, is descriptive. A declarative sentence prescribing what ought to be the case, is normative. Theories composed entirely of descriptive sentences are descriptive theories. Theories comprising at least one normative sentence are normative theories.

Two theories o*ntologically compete* only if they are ontologically distinct. Two theories *ideologically compete* only if they are ideologically distinct. Ontologically equivalent theories may be ideologically distinct. As a result, ontologically equivalent, but ideologically distinct, theories compete only ideologically. When we say theories compete, we mean they compete ideologically, or ontologically (or both). For purposes of this essay, 'quasi-scientific criteria of theory-selection' (henceforth 'QSC') names properties by virtue of possessing which, theories are thought to become virtuous. Put differently, QSC are considered to be "theoretical virtues"[4].

One way to make sense of how QSC may be utilized in theory-selection is drawing an analogy with games. We identify a theorized domain of reality, such as, systems of living things, with a *venue* of what we shall call "virtue-games". Now, competing theories about a domain are interpreted as players competing in a virtue-game which has the domain in question as its venue. Each virtue-game is played in some determinate venue. At least two distinct players must compete in a given virtue-game. A virtue-game is individuated by its set of rules. The rules for all virtue-games are commonly constrained as follows:

Rule-constraint 1: Rules of a virtue-game are to *favor* exactly one partially ordered set, <D,d>, where D is a non-empty set of *standards*, and d is a partial order on D. Further, for all members a and b in D, adb, iff, b is at least as important as a; while b is strictly more important than a, iff, adb and a is non-identical to b. The relation d is reflexive, antisymmetric and transitive[5].

Rule-constraint 2: If V is a virtue-game with rules favoring the poset, <D,d>, and T is the non-empty set of players of V, there is a V-rule, v1, that determines for each t in T, whether, and to what degree, t satisfies each x in D, and there is a V-rule, v2, which following the execution of v1, creates a virtue-matrix *keeping score of* the values yielded by v1's execution. The virtue-matrix for a virtue-game V, with a non-empty set T of players and the poset <D,d> favored, determines for each t in T what t's score

[3] "Ideology" of a theory Th(X), in the present context, is the smallest set of concepts C(X) such that for all c in C(X), at least one sentence x in X uses c. Clearly, if a theory is likened to a description of some domain, its ideology is the set of concepts which is used by its axiom-sentences. To be ideologically distinct (or equivalent) is to have distinct (or identical) ideologies. The "ontology" of a theory Th(X), in the present context, is the smallest set of entities O(X) such that for each x in X to be true, is for at least one member of O(X) to exist. To be ontologically distinct (or equivalent) is to have distinct (or identical) ontologies.

[4] Hence, the qualifier 'quasi-scientific' does not connote that the criteria in question are necessarily similar, or anyhow related to criteria wherewith scientific theories get adjudged on. Rather, quasi-scientific criteria are those utilized in any *theory-selection* minimally modelled on how scientists select their best theories. More precisely, criteria for theory-selection are quasi-scientific whenever they, whatever their degree of similarity to scientific criteria for choosing theories, are utilized in theory-selection *beyond* science – like, in philosophy, or mathematics. 'Quasi-scientific' qualifies the phenomenon of theory-selection per se, as opposed to criteria thereof. Indeed, criteria utterly distinct, or somewhat similar, to scientific standards of theory-choice may all qualify, in our sense, as quasi-scientific insofar as they feature in the very business of theory-selection. This is because theory-selection is, historically speaking, an invention within the sciences and as such, its applications beyond science are accordingly quasi-scientific.

[5] Relation r on set A is reflexive, iff, for each a in A, ara; it is anti-symmetric, iff, for all a, b in A, if arb and bra, then a is identical to b; it is transitive, iff, for each a, b, and c in A, arc if both arb and brc.

is for each x in D[6]. For each t in T and x in D, the score of t with respect to x is 1 if t satisfies x to an extent strictly greater than does any other t' in T. The score is 0, otherwise. The unweighted total score of each t in T is the sum of its scores with respect to each x in D. The weighted total score of each t in T is obtained by *weighing* its non-zero scores determined in the virtue-matrix. That is, each x in D is assigned a value w(x) in the interval [0,1], such that $1 \geq \sum w(x)$[7]. Also, for each x, y in D, w(x)>w(y), iff, xdy and x is distinct from y. Importantly, w(x)=w(y) whenever x is identical to y. For each t in T, the weighted total score of t, S(t), is calculated: $S(t) = \sum w(i)$, where i is a member of D with respect to which t scores 1. Lastly, there is a V-rule, v3, that following the implementations of v1, and v2, declares any t in T as a winner of V, iff, for all t' in T, $S(t) \geq S(t')$.

Given the account, above, of what virtue-games and their rules are generally like, it remains to be emphasized that each virtue-game is individuated by its rules which, in their turn, are individuated by the unique partially ordered set of standards favored. Hence, no two distinct virtue-games are allowed to favor the same partially ordered set. A virtue-game, then, is really a partially ordered set of standards with rules by which to *comparatively* evaluate how its players meet those standards. Now, back to the task of fleshing out our analogy with quasi-scientific theory selection. We interpret the standards favored by a virtue-game as a ranked list of QSC. We further interpret the players, and venue, of a virtue-game as, respectively, competing theories, and the domain those theories characterize. The rules of a virtue-game are accordingly interpreted as a system of comparatively evaluating competing theories about a given domain based on a ranked list of favored QSC. The rule-constraint for rules yielding virtue-matrices ensures that all competing theories are comparatively assessed with respect to each favored theoretical virtue, and that such assessments are weighted with the relative importance of the theoretical virtues in question. Let us call virtue-games interpreted in this way, *theoretical* virtue-games. Lastly, we identify the partially ordered QSC favored by a theoretical virtue-game with the QSC *relevant* to the all players of the game. That is, we urge that the following meta-rule be recognized:

Rule-constraint 3: For each virtue-game, V, t belongs to the set T of players of V, only if t regards the partially ordered standards favored by V to be relevant. To regard the standards as relevant is to admit that each such standard "matters" *as* ranked by the partial order.

Consequently, each player of a virtue-game favoring the poset <D,d> must admit that all members of D matter, *and* that the way in which those members are ranked, is acceptable. Assuming that competing theories play virtue-games introduces the odd prospect of theories "admitting" or "accepting" things. But, of course, one may cut some slack and identify a theory's admissions or acceptances with decisions made by its theorist(s). The above account ensures that there exists no player of a given virtue-game that fails to admit as relevant even one of its favored standards, or the favored manner in which they are ranked. This makes it true that for any theoretical virtue-game V and any theory t, theory t plays V only if t admits, in the manner specified above, the standards favored by V as relevant. We, then, have characterized, as promised, the notion of "relevance" of QSC in theory-selection. Let us understand by a simplified version of virtue-game V, another virtue-game V' such that V' favors an *unordered* set of standards, and consequently, does not obtain weighted total scores for its players. The winners in such simplified virtue-games are players with the greatest unweighted total score. Thinking back to our hypothetical Williams-Rose debate in the previous section, we observe the following:

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[6] Virtue-matrices are score-sheets of virtue-games that may be expressed as matrices.

[7] In this essay, '∑', read "sigma", denotes the sum-function over sets of things. Hence, $\sum A = a + b + c + \ldots$, given $A = \{a, b, c, \ldots\}$.

- Dr. Williams' and Dr. Rose's theories were playing the simplified version, W-R, of some theoretical virtue-game.
- The venue of W-R comprised methods used for attaining knowledge in intellectual fields, including but not limited to, philosophy, mathematics and the natural sciences.
- The players of W-R were, strictly speaking, Dr. Williams' anti-exceptionalist theory and Dr. Rose's exceptionalist theory.
- The unordered set A of QSC favored by W-R was defined: A = {QLOP, CONS}
- The virtue-matrix of W-R yielded an unweighted total score of 1 for Dr. Williams' theory and 0 for Dr. Rose's theory.
- Only Dr. Williams' theory won W-R.

Thinking of quasi-scientific theory-selection in terms of non-simplified theoretical virtue-games is beneficial for multiple reasons. Firstly, nothing gets stipulated about which properties of theories are QSC *simpliciter.* Not all sets of competing theories need be comparatively assessed on their virtues by just the one set of QSC with members ranked in one rigid way. The qualification that competing theories play a theoretical virtue-game favoring some ranked list of QSC, *only* if they unanimously admit as relevant, in our special sense, both the list and the ranking; affords a policy of contextualism with respect to which properties are to count as QSC and in which order of preference. That is, selecting amongst competing theories in some domain using QSC makes sense, in our account, only if those theories are *all* agreed upon what at least one non-empty set of QSC is, *and* upon how members of that set ought to be ranked. When it makes sense to implement such selection, we select amongst competing theories only using that ranked list of QSC they themselves are unanimously agreed upon. In situations where a set of competing theories fail to agree upon *any* such partially ordered set of QSC, however, they cannot play a theoretical virtue-game and cannot, thereby be evaluated using any ranked list of QSC. Our contextualism, in these instances, advises us to regard the competing theories to be not only competing descriptively, i.e., with respect to the details of their descriptions of some domain, but also normatively, i.e., with respect to their *presuppositions* about what, if anything, makes theories virtuous. Any failure, then, at utilizing QSC for selecting amongst some non-empty set, T, of competing theories is rightly attributed, not to the adjudicative power of QSC in general, but to the failure, strictly, of theories in T to agree upon what counts as theoretical virtue, and in which order. This contextualist spirit allows us to get off the mark in using QSC to adjudicate on the comparative virtues of competing theories that do, however, agree upon what at least a few of these virtues are, and which amongst them are more, or less important. Further, any pessimism about QSC is fueled significantly by the belief that differing with respect to one or more theoretical virtues, or their relative importance, is sufficient reason for not engaging in theory-selection at all. This is not quite cogent given that often, hidden under such disputes, may lie common regions of agreement on some set of QSC with a specific ordering. For that, one has to first admit that theory-selection can be well afoot using even such minimally agreed-upon QSC. Another plaguing concern has been the problem of how to

incorporate rankings of QSC in theory-selection even when the QSC to be ranked are agreed upon. The account we developed above demonstratively tempers this concern. [89]

iv. Methodological normativism systematized?

Two distinct kinds of theories about the methodology of philosophy seem to exist. While some theories only describe that methodology, others also prescribe how, when or why one should modify it. But most proposals about such methodological recalibrations of philosophy are well-argued. The arguments of which such proposals are conclusions have amongst their premises descriptions, too, of philosophical methods. Put differently, description seems to precede prescription. For instance, Williamson seems to *prescribe* non-naturalism about philosophical methods because of his belief that naturalistic and non-naturalistic methods in philosophy are *truly described* as "not so different". Again, Rosenberg seems to prescribe naturalism about philosophical methods at least in part because he believes that naturalistic methods are truly described as very different from non-naturalistic ones. Indeed, if any two theories of philosophical methodology endorse the very same description of philosophical methods and goals, they are extremely unlikely to prescribe different reforms for the methods or goals described. Proposals for

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[8] In summary, we make the following observations. One of the plaguing worries regarding the exercise of rational theory-choice with quasi-scientific criteria concerns the relative importance of such criteria. Is the criteria of simplicity more, or less important than, say, ideological parsimony? Even when we are agreed upon what the criteria are, we remain confused about how to "rank" them unanimously. One way to resolve this issue is to adopt a contextualist attitude towards theory-choice. That is, we allow theory-choice to take place only when theorists are agreed upon not only what theory-choice criteria to employ, but also upon how they ought to be ranked. Another worry regarding theory-choice concerns what the actual extension of 'quasi-scientific criteria' is. The contextualist approach, in permitting theory-choice to take place only when theorists agree upon some non-empty set of such criteria, notwithstanding their disagreements about one or more other criteria; goes some way toward resolving this "extensional" worry as well. Theorists may disagree about one or more theory-choice criteria and, at the same time, agree upon some other such criteria. While opinions may be divided about whether ontological parsimony is a theoretical virtue, there might, in principle, be unanimous agreement on properties like explanatory strength or coherence with pre-theoretical intuitions being such virtues. The machinery of virtue-games generalizes, as it were, the use of quasi-scientific criteria, in our special contextualist sense, for selecting amongst not just competing metaphysical theories; but any theory whatever. This helps us makes sense, in this essay, of contextualist theory-choice in meta-philosophy. Finally, virtue-games also provide a two-dimensional model of theory-selection, and thereby helps us make sense of how to factor the relative importance of theoretical criteria in theory-selection.

[9] Some, inspired by methodological cogitations of the later-Wittgenstein, may be keen to object that importing principles of theory-selection used in the natural sciences to philosophy is misguided because (i) criteria of theory-selection scientists use need not, as well, be criteria philosophers ought to use, and (ii) philosophers ought not to be putting forth theories, but instead, therapeutically diagnosing and repairing, where necessary, the conceptual apparatus scientists and/or laymen use. This objection seems problematic in at least two respects. Firstly, (i) fails to grasp the crucial point, noted previously, that we have never for once stipulated 'QSC' to mean criteria even reminiscent of, let alone identical to, those used by scientists in choosing amongst their theories. Indeed, we have managed to articulate and promote, in our contextualist vein, a maximal liberalism with respect to the actual extension of 'QSC'. Secondly, (ii) fails to make sense given how we have, in developing our account, defined 'theory'. Conceptual therapy, as it were, seems to reduce to *declarations* of some kind. Wittgenstein himself espouses the dictum that "speaking of language is part of an activity, a form of life", and utilizes it, thereafter, to inform his therapy of concepts. His therapeutic practice is, in this manner, informed by a set of dictum-like declarative sentences. But, in our precisely stipulated sense, 'theory' denotes any set of declarative sentences closed under logical entailment. Hence, like clinical psychiatrists, *philosopher-therapists* will have their therapeutic strategies informed and constrained by *theories* stating why certain therapeutic strategies, but not others, work better and what the difference between strategies of philosophical therapy consists in. Hence, no therapy without theory. To judge which amongst a set of competing therapeutic strategies are to be accepted as true, we suggest evaluating the performance in theoretical virtue-games of such background theories as are observed informing, or motivating them.

methodological reform differ only when one of them describes some method as more or less capable of achieving some given end, and the others do not. If identical descriptions of the same set of methods endorse such different proposals, there is some method which they describe both equivalently and differently. Hence, each proposal for methodological reform is backed by some description of methods and ends. Also, different proposals are backed, of necessity, by different descriptions. Let us call these "methodological proposals". Now, to adjudicate on which competing methodological proposals are to be accepted, one may design a theoretical virtue-game for the distinct and competing descriptive theory of methods backing them. This is largely because it seems unlikely, albeit possible in principle, that normative theories may approximate descriptive theories in being ontologically or ideologically equivalent (or distinct) unless one heftily assumes that normative claims are really descriptive claims of some sort. Such a game, if successfully charted, will help us systematically decide which amongst some set of competing methodological proposals are to be accepted. [10]

v. Conclusion

Theoretical virtue-games for methodological proposals will exist *only* if the relevant underlying descriptive theories of methods do agree upon some ranked list of QSC we can "read off" from the context. For the sake of conducing our use of these games[11], theorists in general will do better, for instance, to engage in the practice of explicitly announcing their meta-theoretic commitments, namely, to what they count as a "virtuous" theory, and what the relative importance is, of each theoretical virtue. Given the presently non-systematic nature of methodological normativism, designing theoretical virtue-games, wherever possible, for the descriptive theories of methods, will supply a systematized version of such normativism. While ambitious, and potentially of great dialectic value, theoretical virtue-games are difficult to design in practice because most theorists are not used to making explicit what *they* believe to be theoretical virtues. In the absence of such data, the design of these games remains open to the charge of "reading" too much, or too less, into any one amongst a set of competing theories.

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[10] It might be objected against our account that not all theorists are aware of what "virtues/criteria" with which to evaluate theories are. We contend, nonetheless, that they are all aware of what virtues/criteria of theories, as such, are. Any respect, for instance, in which theories may be defended or endorsed, as is often and universally the case, counts, in the context, as a theoretical virtue. Such virtues, almost invariably, comprise logical properties like consistency, for instance. Virtue-games can be designed with such limit-case theoretical virtues, as well. Ideally, we want theory-selection to transpire, if at all, with respect, as well as to logical properties, to one or more non-logical properties of theories, like simplicity, explanatory strength, etc.

[11] Games capable of factoring in more than merely limit-case, logically salient virtues.

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