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Grace de Laguna's 1909 critique of analytic philosophy: presentation and defence

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Abstract
Grace A. de Laguna was an American philosopher of exceptional originality. Many of the arguments and positions she developed during the early decades of the twentieth century later came to be central to analytic philosophy. These arguments and positions included, even before 1930, a critique of the analytic-synthetic distinction, a private language argument, a critique of type physicalism, a functionalist theory of mind, a critique of scientific reductionism, a methodology of research programs in science and more. Nevertheless, de Laguna identified herself as a defender of the speculative vision of philosophy, a vision which, in her words, 'analytic philosophy condemns'. I outline her speculative vision of philosophy as well as what is, in effect, an argument she offers against analytic philosophy. This is an argument against the view that key parts of established opinion, e.g. our best theoretical physics or most certain common sense, should be assumed to be true in order to answer philosophical questions. I go on to bring out the implications of her argument for the approaches to philosophy of Bertrand Russell, Willard V. Quine and David Lewis, and I also compare the argument to recent, related arguments against analytic philosophy. I will suggest that de Laguna offers a viable critique of analytic philosophy and an alternative approach to philosophy that meets this critique.

Keywords Speculative philosophy · History of Analytic Philosophy · Women in Philosophy · Metaphilosophy

1 Introduction

During the early decades of the twentieth century, Grace A. de Laguna developed many of the arguments and ideas that came to be key to analytic philosophy. These include a critique of the analytic-synthetic distinction, sophisticated versions of epistemic and meaning holism, a private language argument, a critique of type

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physicalism on the basis of what we would call 'multiple-realisability', a sophisticated, functionalist theory of mind, a critique of scientific reductionism, a methodology of scientific research programmes, a modal ontology and more (Katzav, 2023a). Nevertheless, she identified herself as an advocate of speculative philosophy, an approach to philosophy which she took to be condemned by analytic philosophy. Moreover, in 1909, she presented a brief metaphilosophical argument for her speculative approach to philosophy. This argument is, in effect, a critique of analytic philosophy as she understood it. The upshot of her critique is that philosophy should not proceed by assuming, with analytic philosophy, the truth of some part of established opinion, e.g. of our best physics or most certain common sense, but should instead include a critique of the truth of established opinion. In what follows, I present de Laguna's argument and, in doing so, illustrate her approach to philosophy. I will also examine the implications of de Laguna's argument for the approaches of Bertrand Russell, Willard V. Quine and, especially, David Lewis. Finally, I will further explore what de Laguna's argument might still teach us today by comparing it with Angela Potochnick and Elijah Millgram's recent, related critiques of aspects of analytic philosophy and considering responses to such critiques which are found in, or based on, recent literature.

I consider in "De Laguna on analytic and speculative philosophy" how de Laguna thought of the speculative and analytic approaches to philosophy, noting the plausibility of her view of the latter. In "Three exemplars of the analytic approach: Russell, Quine, and Lewis", I then present three exemplars of the analytic approach to philosophy, which are due to Russell, Quine and Lewis. In "De Laguna's critique of analytic philosophy", I outline and clarify de Laguna's argument against analytic philosophy. I also bring out some of this argument's implications for her approach to philosophy. In "Some implications for Russell, Quine, and Lewis", I briefly examine what the argument implies for the three exemplars of analytic philosophy and illustrate these implications in the case of Lewis's theory of knowledge ascriptions. "De Laguna's argument in the twenty-first century" brings out the scope and continuing strength of de Laguna's argument by comparing it with Potochnick and Millgram's related arguments. Furthermore, "De Laguna's argument in the twenty-first century" considers current responses to such arguments. In "Conclusion", I offer some concluding remarks.

2 De Laguna on analytic and speculative philosophy

De Laguna's commitment to speculative philosophy spanned her career from 1899 to the 1970s (Andrus, 1899; De Laguna, 1936, 1951 and 1981). Throughout this period, her conception of speculative philosophy remained relatively stable (Katzav, 2023b). First, on her view, speculative philosophy aims to offer a critique of established opinion, especially of the sciences. This critique should aim to uncover the limitations of claims to knowledge, and more specifically, it should examine to what extent the various bodies of established opinion are bodies of partial truths. A second aim of speculative philosophy is to explain how cognition came into existence and ultimately developed into scientific and philosophical knowledge. The first and second aims of speculative philosophy specify the goals of its epistemology. A third aim of

speculative philosophy is to develop a speculative metaphysics. Speculative philosophy should go beyond established opinion in order to offer a vision of the ultimate nature of reality, one that includes an account of how the different aspects of reality uncovered by the special sciences fit together and of how humans are part of nature and yet, in a sense, transcend nature (De Laguna, 1936, 1951; Katzav, 2023a).

De Laguna's view, furthermore, is that epistemological and metaphysical theories should mesh (1936; 1951). A metaphysics should, since it must find a place in reality for humans, and thus for the evolution of our knowledge into existence, mesh with a viable epistemology. On the other hand, an epistemology, since it will have implications about humans, their evolution and the world they inhabit, should mesh with a viable speculative metaphysics.

De Laguna situates her own philosophy within a broader philosophical context in her paper 'Speculative Philosophy' (1951), which was first presented in 1950. Her view is that her speculative conception of philosophy is roughly shared by many other thinkers from the end of the nineteenth century and the first half of the twentieth century. Figures she explicitly includes in her tradition are Henri Bergson, John Dewey, Martin Heidegger, Charles Saunders Peirce, George Santayana, and Alfred North Whitehead. Historically, she inherits, with some modifications, her speculative approach to philosophy from her teacher James Edwin Creighton (Katzav, 2023b). Similar approaches to philosophy were also to be found in the UK, e.g. in the work of Bernard Bosanquet (1914), and in India, e.g. in the work of Sarvepalli Radhakrishnan (1929).

During her long career, de Laguna pays scant attention to the recognised figures of analytic philosophy and to the analytic tradition as such.[1] Nevertheless, in presenting the speculative tradition, she situates it alongside its rivals, among which she includes analytic philosophy. This allows us to see how she thinks of analytic philosophy and its relationship with speculative philosophy.

De Laguna notes that speculative metaphysics is 'condemned' by analytic philosophy (1951, p. 9), but unfortunately, she does not fully characterise analytic philosophy. She does tell us that it rejects 'metaphysics as the proper enterprise of philosophy' and insists 'on the primacy of the analysis of logical meaning' (1951, pp. 11–12). But this only lets us know that metaphysics is not, for analytic philosophy, the single required part of philosophy, while the analysis of logical meaning is. More helpful is her statement that twentieth-century speculative philosophy shares with analytic philosophy the goal of critiquing the scope and function of conceptual thought, though they 'differ profoundly among themselves both in the particulars of their criticism and in their interpretation of its significance' (1951, p. 9). She immediately goes on to explain the difference, using the examples of the thought of Bergson and Santayana. She notes that twentieth-century speculative philosophy characteristically claims an epistemic independence from established opinion, albeit one that is not based on a priori considerations and that recognises its own limited ability, along with that of all conceptual thought, to reveal the ultimate nature of

[1] An exception is her criticism (1919) of the American new realists, some of whom can be thought of as part of early analytic philosophy.

reality (1951, pp. 9–11). Thus, what de Laguna takes analytic philosophy to condemn is philosophy that tends and aims to make claims which are independent of established opinion and, indeed, which are part of a critique of established opinion. Moreover, analytic philosophy is plausibly taken by de Laguna to be an enterprise that can be characterised as epistemically conservative: in answering philosophical questions, it tends and aims to avoid going beyond or critiquing (at least some part of) established opinion.

De Laguna's (partial) characterisation of analytic philosophy is plausible. Krist Vaesen and I argue (Katzav, 2018; Katzav & Vaesen, 2017) that at least during the period 1925–1969, analytic philosophy was characterised by the goal of excluding, at the institutional level, philosophical approaches that are not epistemically conservative, including speculative philosophy. More positively, we take analytic philosophy during this period to be characterised as a form of critical philosophy, that is, as tending and aiming to answer its questions by, in one way or another, unpacking or reconstructing some body of established opinion. Our characterisation differs from de Laguna's in that it concerns institutional orientation, while hers does not. In addition, she adds that analytic philosophy takes logical analysis to be primary. This is, perhaps, no surprise given that her paper was written at a time when logical analysis was central to analytic philosophy.

We have seen that in 1950, de Laguna recognises the opposition between speculative and analytic philosophy, where this consists in the fact that the latter is, and the former is not, epistemically conservative. In addition, much of de Laguna's research throughout her career includes metaphilosophical reflection that targets epistemically conservative philosophy and supports speculative philosophy. As a result, she is effectively and—at least by 1950 when she presents herself as an advocate of her condemned approach—publicly a critic of analytic philosophy. Before elaborating on her critique, however, let us get clearer on its target.

3 Three exemplars of the analytic approach: Russell, Quine, and Lewis

My first exemplar of analytic philosophy is Russell's variant of it in his *On Our Knowledge of the External World* (1914). He writes, '[i]n every philosophical problem, our investigation starts from what may be called 'data' by which I mean matters of common knowledge, vague, complex, inexact, as common knowledge always is, but yet commanding our assent as on the whole and in some interpretation pretty certainly true' (1914, pp. 72–73). Russell includes as common knowledge, knowledge from daily life and its extensions, e.g. in the field of history and in physical science. Moreover, he takes it that philosophy starts by accepting this common knowledge as data for its investigations. He goes on to admit room for doubting some of the details of common knowledge on the basis of other claims within it but repeats that philosophy 'is not sceptical as regards the whole' (1914, p. 74).

Russell adds to his overall epistemically conservative attitude to common knowledge a specific approach to using it to address philosophical problems. On his view, we are to address philosophical problems by taking an epistemically privileged part

of common knowledge—that is, a part of such knowledge about which we have a high degree of certainty—and logically analysing the rest of common knowledge in terms of that privileged part. Supposedly, our knowledge about the immediate objects of experience—sense data—is epistemically privileged, as is our knowledge of logic. Moreover, roughly, these privileged items of knowledge provide the inferential basis for our knowledge about physical objects and other minds. Knowledge about physical objects and other minds is thus to be logically analysed in terms of knowledge about sense data. It is in this way, according to Russell, that we can secure our knowledge of physical objects and other minds (1914, pp. 75–80).

Importantly, the logical analysis Russell proposes is not supposed to lead the philosopher to go beyond common knowledge in order to provide further knowledge about the world. As we have seen, Russell thinks that this method involves the analysis of knowledge using logic. Moreover, on his view, logic is purely formal, revealing to us nothing about the world or things that exist (1914, p. 47).

Quine's 'On What There Is' provides an approach to ontology that is surprisingly similar to Russell's approach to philosophy in general and which (Bricker, 2016) has come to be called 'orthodox'. Like Russell in 1914, Quine thinks that we answer ontological questions by interrogating established opinion, though Quine specifically emphasises scientific knowledge as the source of our answers. As he puts it, '[o]ur ontology is determined once we have fixed upon the over-all conceptual scheme which is to accommodate science in the broadest sense' (1948, p. 36). To determine what our conceptual scheme for accommodating science is, Quine adds, we should regiment scientific claims using first-order logic. This process of regimentation includes paraphrasing some of the claims of science. For example, we might try paraphrasing all scientists' talk of physical objects away with the aim of leaving us with a purely phenomenalistic language. We should, according to Quine, prefer that regimentation which is the simplest and most fruitful one available. Our ontology then includes just those entities which the resulting regimented theory must quantify over (1948, pp. 36–38).

Until the early 1940s, at least, Quine follows Russell and prefers a phenomenalistic reconstruction of our conceptual scheme (Verhaegh, 2019). In 1948, Quine still ties the question whether the preferred conceptual scheme should be phenomenalistic or physicalistic to the relative epistemic security of beliefs about sense data, though he also recognises the relative simplicity of physicalist descriptions (1948, p. 38). But, by the early 1950s, Quine endorses a physicalistic language as a preferable base for reduction (see, e.g. his 1953; Verhaegh, 2019). The philosopher's investigation of what there *is* is no longer tied to the quest for increased certainty and can now recognise the fallible status of all ontology.

Nevertheless, part of the process of Quinean regimentation involves making sure that the resulting total theory does not include parts of science not believed to be true without qualification, e.g. Newtonian mechanics (Quine, 1960, pp. 228–231; Harman 1967, pp. 354 and 361). Thus, while Quine's approach to ontology does not include the Russellian assumption of the almost certain truth of common knowledge as a whole, it does include the epistemically conservative assumption that the part of common knowledge that is being regimented is true. Moreover, regimentation involves reconstructing this body of established opinion with the help of paraphrase.

As we have seen, while Quine had a preference for phenomenalistic reconstruction in the 1940s, he came to prefer the language of physics as the fundamental language of reconstruction. He also assumed that the truth of behaviourist psychology constrains our commitments regarding mind and meaning (Verhaegh, 2019). Quine is thus, in line with the epistemically conservative approach, unpacking the conceptual scheme of science in light of one or another preferred body of established opinion.

Lewis, like Quine and Russell, takes it that philosophy is epistemically conservative. Thus, Lewis tells us that 'it is not the business of philosophy either to undermine or to justify…preexisting opinions, to any great extent, but only to discover ways of expanding them into an orderly system' (1973, p. 88). Furthermore, in agreement with Quine, we are to determine our ontological commitments by seeing what we quantify over, and in determining what we quantify over, we should be willing to engage in paraphrase (1973, p. 84). Lewis's epistemic conservatism, however, differs from Quine's in that Lewis, harking back to Russell, gives common opinion a privileged position Quine does not. Lewis takes it that there is a presumption that apparent existential quantification in ordinary language is as it appears to be and thus commits us to the things to which it appears to commit us (1973, p. 84). Indeed, according to Lewis, the process of systematization must respect the unqualified truth of pre-philosophical opinions in which we are firm, giving these up only due to internal conflict among such opinions or the need for systematicity (1973, p. 88). On his view, pre-theoretical beliefs are particularly important for epistemology. As we will see in "Some implications for Russell, Quine, and Lewis", he thinks it ought to answer its questions by insisting on the Moorean facts, that is, facts about which we are pre-theoretically certain.

That Lewis permits expanding preexisting opinion in systematising it does involve a relaxation of epistemic conservatism. He allows philosophers to make substantive claims that go beyond those of privileged established opinion, provided there is no great conflict with it. Nevertheless, Lewis's approach is epistemically conservative even where it permits going beyond established opinion; it aims to avoid critiquing established opinion and departs from it only when making sense of it requires us to do so.

4 De Laguna's critique of analytic philosophy

4.1 The partial truth of established opinion

De Laguna's 1909 paper 'The practical character of reality' has as its primary target John Dewey and William James's *immediatism*, the view that 'things really are, what they are experienced as' (1909, p. 398). Moreover, the paper develops its own, alternative definition of what it is to be real. However, in explaining the significance of her critique towards the end of her paper, she reflects on the nature of judgement and on what this nature might teach us about making philosophical claims (1909, pp. 410–415). Her specific targets are commitments to unqualified truth by both pragmatist critiques of absolute idealism and absolute idealism itself, but her points are general. One of her main points is that in philosophy, we should not simply accept

the truth of some part of established opinion; rather, philosophy ought to include the *critique* of established opinion. Her argument is thus against any philosophical approach which, like analytic philosophy, is epistemically conservative.

In this and the following two subsections, I elaborate on de Laguna's 1909 metaphilosophical argument. I will, in doing so, help myself to later work by de Laguna, including the collaborative work she did with her husband, Theodore in their 1910 book *Dogmatism and Evolution: Studies in Modern Philosophy* and in a number of papers she wrote in the 1910s. In 1910, the de Lagunas offer a critique of 'dogmatism'. The target is the rationalism and empiricism of modern philosophy but also reactions to modern philosophy such as absolute idealism and pragmatism. The key complaint about the reactions to modern philosophy is that they do not sufficiently overcome its dogmatism, which includes, among other things, its assumption that some of our knowledge is true without qualification (Katzav, 2022). In 1910 as well, then, (Grace) de Laguna is effectively a critic of analytic philosophy.[2] The 1910 discussions are useful as they provide detail absent in the shorter 1909 treatment. Later papers from the 1910s are also useful as they provide further insight into why de Laguna thinks established opinion is only partially true.

The first premiss of de Laguna's argument against epistemically conservative philosophy is as follows:

> (Partiality) Everyday and scientific knowledge are partially true in both recognised and unrecognised ways.

The second premise is as follows:

> (Purpose Relativity) Which partial truths we accept depends on our purposes.

Partiality and Purpose Relativity, with the observation that philosophy has its own distinctive purposes, suggest that it should not assume the unqualified truth of any body of established opinion but should include the critique of all such opinion. This subsection presents de Laguna's case for Partiality. "The purpose relativity of acceptance" presents her case for Purpose Relativity. In "Philosophy and the critique of established opinion", I turn to examine how Partiality and Purpose Relativity support an approach to philosophy that is not epistemically conservative.

In resisting the immediatist assumption that things are precisely as they are immediately experienced to be, de Laguna observes that this assumption fails to recognise its own abstract nature and that this nature is just an instance of Partiality:

> The untruth of the assumption is simply the untruth which attaches to any abstraction whatsoever, - the mistake of supposing that a partial account of anything may be absolutely true so far as it goes. The fact remains, that all our actual knowledge is of this sort, - an everlasting synecdoche in which the abstract poses for the concrete (1909, p. 413).

[2] The critique is from the third part of *Dogmatism and Evolution*, which, plausibly, is largely Grace's work. The book's preface records that one of its authors had to withdraw from writing this part of the book, leading to its neglect of its treatment of relations, a topic on which Theodore was a well-known expert.

She uses the physics of the day—classical mechanics—to illustrate her acceptance of Partiality. She observes that the principles and conceptions of mechanical phenomena are abstractions and thus involve selectivity and distortion. Moreover, even if we try to make allowance for their ideal nature when we apply them, we will do so in terms that are themselves abstract (1909, pp. 411–412). As for example, a pulley 'is defined by mechanics, the cord must be perfectly flexible and the wheel on which it runs perfectly frictionless. Only when these conditions are fulfilled have we, from the standpoint of pure science, a real pulley' (1909, p. 411). Moreover, if we try to correct our abstractions about the pulley when applying them, the terms in which we do so 'are as ideal and schematic as the perfect pulley itself; and when all is said and done there ever remains uneliminated error, whose correction would demand an infinite analysis' (1909, p. 412). Mechanics, finally, is not only partially true because it is abstract but also because its principles and conceptions involve irreconcilable self-contradictions (1909, p. 411). While de Laguna does not specify how, on her view, mechanics and mathematics have been inconsistent, she was no doubt aware of the relevant history, e.g. of the initial inconsistency of Newton's differential calculus and the inconsistency of classical set theory.

Notice that de Laguna does not offer a general argument for Partiality here but merely illustrates it with examples. She could do this because it was already being extensively supported by philosophers of science. Three influential instances of support are Henri Bergson's examination of the extent of abstraction in scientific psychology (1889), James Ward's examination of abstraction in natural science (1899) and, particularly important for de Laguna, Creighton's examination of how philosophy ought to approach scientific knowledge (1901).

That said, we will see that de Laguna does later provide more detailed support for Partiality in the course of supporting Purpose Relativity. So too, in later work, she argues that the traditional candidates for judgements of unqualified truth, including judgements about clear and distinct ideas and about sense data, are abstractions. Regarding sense data, for example, she observes that when we shift our attention to the putative sense data involved in the visual perception of what we would rightly describe as a uniformly brown hat, the uniformity disappears and is replaced by a patchwork of related shades of colour. Such cases, she argues, suggest that judgements about sense data are not about ingredients of actual perceptions but about abstractions from them (1916).

De Laguna also offers direct, general arguments for Partiality. One general argument she offers is roughly that, given the kinds of limited beings we are and the complexity of our world, our judgements can only be partially true. 'The practical character of reality' already includes an appeal to the inevitability of abstraction. She notes, in her discussion of the idealised, mechanical representation of a pulley, that such abstractions are practical necessities (1909, p. 412). She explains the case for the inevitability of abstraction at greater length in 1910, with her husband:

> A process of reasoning can proceed only by assuming a set of premises, partly explicit and partly implicit, as valid for the purposes of the argument in hand. Without such fixed point of departure, no coherent reasoning would be possible. The hypothetically valid premise is a fulcrum by means of which we move

> the unwieldy masses of fact and theory with which our thought is to cope. But to make an assumption with regard to any concrete subject is to make an abstraction; it is to single out certain characteristics, and to regard these out of connection with others which are equally constitutive of the subject in other relations (1910, p. 153).

The point here is that reasoning about concrete matters of fact with limited cognitive resources requires assumptions that selectively represent relevant characteristics and also distort them. We must be selective about the characteristics we represent because of the complexity of concrete reality and of relevant theory. We must distort the characteristics because we must partly ignore the context from which they are abstractions, and this context partly makes the characteristics what they are. In this way, our judgements are inevitably abstract. Moreover, due to our limited cognitive resources, we can expect that this abstraction will, at least to some extent, be unrecognised by us.

Furthermore, the practical orientation of our reasoning means that which assumptions we make varies substantially with context. Indeed, the competing demands and goals of different contexts will often result in our making logically incompatible assumptions and thus in contradictions across and within different sciences. As the de Lagunas explain,

> a remarkable instance of this is found in the physics and biology of the eighteenth century. While the latter had yet to appeal to the intervention of creative power to account for the origin of species, the former had long excluded all intelligent causes from the explanation of the cosmos. One may say that in order that physics and biology might exist, what was true in the one had to be false in the other (1910, p. 153).

That such inconsistency might one day disappear from science is chimerical (1910, p. 153). The de Lagunas' contention here is that the inconsistencies that have occurred within mechanics and mathematics are not transient phenomena but inevitable aspects of research. As a result, we have an extra reason to think of these fields as fields of abstract, partial truth.

(Grace) de Laguna offers a second general argument for Partiality. This argument is, again roughly, as follows: judgements cannot fully accurately represent what is not repeatable, since they use concepts to represent and concepts represent repeatables or universals. It follows, since concrete individuals and their acts are (necessarily) qualitatively unique and thus not repeatable, that concepts cannot completely accurately represent individuals and their acts (1917b, p. 182; 1966).

It is clear from de Laguna's second argument for Partiality that she takes it to cover all judgements, including not only general judgements but also singular judgements, that is, those that are about individuals such as a particular, concrete pulley. One of her reasons for taking singular judgements to be conceptual, and so to be subject to this argument, is found in her critique of immediatism. Immediatism implies that there is no room for error in perceptual judgements, a class of singular judgement. However, according to de Laguna, to judge that something is real is to judge that it makes a difference to an indefinite number of other possible situations

and thus to judge it with the help of concepts, meaning that the possibility of error always remains (1909; 1910, pp. 244–245).

Since de Laguna takes all judgements to be partially true, she also takes Partiality to be partially true. She thus adopts a paradoxical reading of it. However, the 1909 statement of Partiality we are focused on does not explicitly state that all judgements are partial truths, and I will not have space to further examine de Laguna's motivation for such a strong commitment. I will therefore read Partiality as the claim that, in everyday and scientific knowledge, partial truth is pervasive in recognised and unrecognised ways. This reading recognises the already noted empirical studies of science supporting Partiality, and it also recognises that some, such as Josiah Royce (1899), accept the pervasiveness of abstraction in judgement but tentatively propose exceptions to it, including in science.

4.2 The purpose relativity of acceptance

The pragmatic considerations from 1909 already indicate that the assumptions we make in our reasoning in order to manage the complexity of our world vary with context and purpose. By implication, which partial truths we are willing to accept varies in this way, in accord with Purpose Relativity. As de Laguna puts it, inquiries are

> always undertaken from some definite point of view, and are carried on with reference to some specific practical or theoretical interest; and it is this interest which furnishes a criterion for the success of the investigation (1909, p. 414).

De Laguna and her husband elaborate on the case for Purpose Relativity in 1910. They observe that, in everyday contexts, we tend to accept partial truths for very local and specific purposes (1910, p. 155). Thus,

> the captain of a disabled ship, whose sole object was to reach shore, might be quite content with the accuracy of observations which showed his position within a fraction of a degree, provided the nearest land were a large island to the westward, extending over several degrees of latitude. The Arctic explorer, who believed himself to be near the pole, would find such rough calculations of his position to be absolutely useless (1910, p.151).

In science, standards of acceptance tend to be used for less local and more general purposes, though acceptance is still of partial truths and relative to context and purpose. The case for this is developed by an examination of the acceptance of laws. Merely recognising counterexamples to a putative scientific law is not enough for scientists to withdraw their acceptance of it. Moreover, what counterevidence scientists are willing to tolerate before an accepted law is rejected, varies with context. In the words of the de Lagunas,

> [a] law is not judged as true because it marks the limit of human knowledge and because we are not able to correct any given formulation of it. Its truth is always a matter of context. It is valid if we find a certain harmony

> between the character and degree of its abstractness and the character and definiteness of the conclusions in view of which it is asserted (1910, p. 153).

For example, the principle of political economy that humans seek to gratify their desires by minimal exertion is not judged invalid 'because as a matter of fact we find exceptions to it' (1910, p. 152). Rather, insofar as it is being questioned, this is because

> it is too rough and ready an affair for the purposes of present-day economics. A more careful study of the operations of a market, a finer analysis of the phenomena of supply and demand, a deeper insight into the nature of value, due in part to investigations in allied sciences—all these are tending so to transform our ideas of the functions performed by the 'economic man,' that the classical description of him is no longer appropriate (1910, pp. 152-153).

Comparing the laws of mechanics with those of economics illustrates how the context dependency of the acceptance of scientific laws leads to a tolerance of different levels of inaccuracy in different fields of research. This comparison shows that

> [t]he laws of economics are protected by an 'other things being equal,' where there is by no means a definite conception as to what these other things may possibly include. In mechanics there is no 'other things being equal.' The antecedent of each formula purports, at least, to set forth the precise conditions under which the consequent must follow (1910, p. 159).

To the suggestion that the laws of mechanics are unqualified, universal truths and thus that perhaps their acceptance is not purpose relative, the de Lagunas respond that

> the patent historical fact that its laws have been only gradually revealed by observation and experiment, suggests very forcibly…that the certainty and absolute exactness of these laws are illusory (1910, p. 155).

Similarly, the de Lagunas consider whether history suggests that the accepted truths of mathematics, including those of logic, are unqualified truths. They write that

> [t]he vital question is whether the underlying concept of number itself, and below it the concepts of implication and inclusion, are absolutely final. This we see no sufficient reason to believe. On the contrary, the utterly unexpected development which the concept of number has recently undergone through researches in the theory of infinite numbers is an index of the possibilities which may yet be in store. Nothing could ever have seemed more necessary than that if $2X = X$, $X = 0$; and yet we know today that there is a distinct class of other roots (1910, pp. 159-160).

While it was once assumed that if $2X = X$, then $X = 0$, we now know this to have been only a partial truth. Importantly, the examples of mechanics and logic

suggest that judgements should be expected to be partially true in recognised and unrecognised ways.

We thus have further support for Partiality. More to the purpose of this subsection, we have a case for Purpose Relativity. Examples suggest that everyday standards for accepting partial truths vary with very local contexts and purposes. In the sciences, we find that generalisations are held to be true to varying degrees and that how true they are held to be varies, though less than it does in everyday contexts and increasingly less in some fields, with context and purpose. We can add that, insofar as singular judgements are themselves conceptual and thus general, singular judgements in science are also partially true and accepted as a function of the special science of which they are a part.

(Grace) de Laguna recognises perspective as a further source of partial truth and purpose relativity in science. She argues that the individuals and classifications of different special sciences do not neatly map on to each other. An individual/class identified by one science as being in a specified region(s) of space and time need not neatly, if at all, map on to any corresponding phenomenon in another science studying the same region(s). In other terms,

> [t]he world as it exists for science is a vast network of patterns, the different systems of which overlap and mingle, but which we cannot resolve into a single system of design. The units which we find to be the key of one pattern turn out to be misleading clues when we try to apply them elsewhere (1917a, p. 625).

What underpins our inability to resolve the different patterns of nature into a single system are the principles of individuation and classification used in each science. The scientific judgements within a field of science are made on the basis of distinctive principles of classification and individuation, so the judgements of the science are perspectival in that they only reveal one pattern from among the network of patterns in nature (1917a, p. 625).

Yet the sciences do not typically hedge their judgements in a way that recognises phenomena from other fields. So, judgements within any given field of science only provide us with partial truths about which individuals and kinds there are (1909; 1917a; 1917b). Assuming that the principles of individuation and classification of a science reflect its own aims, we once again have here purpose relative, partial truth.

For example, the judgements of classical mechanics reveal only aspects of phenomena not only because such judgements are abstract but also because, qua judgements in mechanics, they classify phenomena together according to whether they comprise natural classes of distributions of mass, charge, and energy. As a result, mechanics will misrepresent, if not negate the existence of, phenomena that are classified on the basis of their functional, teleological roles (1917b). Redescribe the various victories of the Democratic Party in US elections in terms of distributions of mass and energy and then compare these descriptions. We will then

> find that they present no characteristic identity. If they were not already given as belonging to the same class, we should never be led by our physical analysis

> to class them together. But this means that the phenomenon 'Democratic victory' is not a physical event (1917b, pp. 179-180).

In this case, physics will imply that there is no kind of thing that is a victory of the Democratic Party and thus that there are no such victories. Indeed, physics' principles of individuation are such that it will not even recognise the disparate physical events related to any such victory as comprising a single event, and it will thus imply that what we would call 'a victory of the Democratic Party' is no event at all (1917b, p.181).

It might, of course, still turn out that there are unqualified truths, despite the perspectival nature of scientific judgement; phenomena that appear in one perspective might also appear in other perspectives. De Laguna accepts this. She is clear (1917b, p. 184) that, on her view, how the phenomena of one field of science relate to those of another is an empirical question, depending on a comparison of the principles of individuation and classification of the different sciences. What the appeal to perspective achieves for her position is the potential that the sciences are pervaded by qualified truths about their phenomena, a potential that we have seen is plausibly partly realised in parts of physics.

De Laguna develops similar arguments about some other fields. For example, she argues that historical phenomena are invisible to psychology, physiology, and biology (1917a). Moreover, the kinds of considerations she deploys in arguing that scientific knowledge is perspectival can be extended to the everyday context. Everyday principles of individuation and classification also vary across psychological, physiological, material, and other domains. Indeed, while her already outlined argument that conceptualisation as such yields partial truth is initially presented in the context of a discussion of abstraction, she later (1927; 1934) takes conceptualisation to comprise a perspective. Conceptualisation, i.e. judgement, provides a perspective on individuals. From this perspective, individuals' natures are constituted by repeatable qualities and accordingly are not unique. So too, the perspective of judgement fails to capture what conscious individuals' experience is like. Perception is the perspective which reveals this aspect of experience (1927, p. 134).

The considerations just rehearsed also help to make clear why we cannot automatically generate unqualified truths simply by relativising the judgements of a science to its perspective. We do not automatically get an unqualified truth by saying, for example, that from the perspective of classical mechanics, there are no victories of the Democratic Party. According to de Laguna, the qualification that a judgement is perspectival is itself made from a perspective, namely the conceptual one. Another reason why relativisation to perspective is not sufficient to generate unqualified truths is the concept of perspective itself. Even the idea of a special science's perspective is likely to be partially true given that sciences develop and interact.

4.3 Philosophy and the critique of established opinion

Plausibly, judgement is pervasively abstract in recognised and unrecognised ways. Moreover, judgement is plausibly, and perhaps pervasively, perspectival in recognised and unrecognised ways. These two assumptions, and the purpose relativity of

acceptance, suggest that we should not simply assume the unqualified truth of judgements in philosophical investigation. Rather, the judgements are to be investigated as to how true they are. The conceptions of mechanics and mathematics, for example 'must be criticised both as displaying irreconcilable self-contradictions and as failing to represent the concrete facts of actual experience' (1909, p. 411). If this is not done, we end up with 'a dogmatic absolutism quite as sterile when applied to the concrete issues of human life as any materialism could well be' (1909, p. 414).

Importantly, the point here is not that philosophers cannot simply accept partial truths because philosophers aim at unqualified truth. Rather, the point is about being permitted, and indeed needing, to determine whether claims imported into philosophy from without are true enough for its purposes. Even if some established opinion is true without qualification, we cannot simply assume that this is so given the pervasive (sometimes unrecognised) partial truth of established opinion and the recognition that acceptance was not made for the purposes of philosophy.

How do philosophers' aims differ from those of the special sciences? Moreover, how would failing to acknowledge this difference adversely affect philosophy? Importantly, for de Laguna, philosophy has the goal of figuring out how the partial facts illuminated by the different special sciences fit together. It thus needs to concern itself with the extent to which the truths of these sciences are partial. This is plausibly why de Laguna complains that assuming the unqualified truth of mechanics is sterile when it comes to understanding human life.

Another goal of philosophy is providing frameworks that can serve as heuristics in the development of science. De Laguna's own work illustrates such a role. She criticises the psychologist Margaret Floy Washburn for taking the goal of psychology to be the examination of essentially private experiences and instead proposes that psychology should analyse psychological states functionally. The nature of belief, for example, should be illuminated by examining its causes, its effects, and its relationships with other types of mental states when the human organism is functioning properly (De Laguna, 1918; Katzav, 2023a). Why so? Partly because, according to de Laguna, psychology can make scientific progress in investigating psychological phenomena only if they are taken to be, essentially, functions of available experimental setups. The question of the existence of essentially private mental states is not something that can be tackled experimentally (Katzav, forthcoming).

Whether de Laguna is correct in her criticism of Washburn does not matter here. What matters for present purposes is just that if philosophy is to have a heuristic role akin to the one de Laguna gives it—that is, a heuristic role in guiding methodology in the special sciences—philosophy needs to permit, or even to encourage, methodological disagreement with practicing scientists. And if philosophers are to be permitted to disagree with scientific methodology, they should also be permitted to disagree with the purported facts adduced by scientists. After all, rival methodologies yield rival judgements about the facts.

The heuristic role of philosophy just discussed is part of epistemology, as a critique of an aspect of established opinion, which in this case concerns methodology. But epistemology must, more broadly, adopt standards of judgement that are different from those of the sciences. This is partly because the critique of some body of established opinion cannot proceed simply by adopting the standards of

that body. It is also partly because epistemology cannot appropriately account for the various forms of cognition unless it can identify the ways in which cognition is limited. This requires recognising and estimating limitations in the various bodies of knowledge that these bodies do not recognise. And doing this, ultimately, means viewing the limitations of the special sciences from a perspective that goes beyond them—that is, from the perspective of a speculative vision of reality. Metaphysics too, it turns out, must have a speculative component.

Importantly, the explanations just offered on behalf of de Laguna do not beg the question against analytic philosophy in assuming that philosophy aims to investigate how the different bodies of established opinion interrelate. Analytic philosophers often agree, as we have seen in the cases of Russell, Quine, and Lewis, that philosophy has such a role. So too, the idea that philosophy has a heuristic role in guiding the sciences is one analytic philosophers often accept. For example, decades after de Laguna's objections to Washburn, Gilbert Ryle and other ordinary language philosophers objected to the idea that psychology ought to develop theories about the nature of mental states on the grounds that doing so rests on a misunderstanding about the meaning of talk about the mind (Hacker, 2012).

De Laguna, however, is offering an argument for including a critique of established opinion in philosophy. Does this not beg the question against approaches that epistemically privilege established opinion? Ordinary language philosophers permitted a critique of psychology but only from the perspective of ordinary ways of thinking and doing, not from the independent perspective of philosophy.

What needs to be kept in mind here is that those committed to epistemically conservative philosophy must answer two key questions: which body of established opinion is to be accepted without qualification, and what is the content of that body of established opinion? What de Laguna is criticising includes answers to these questions. For example, she is observing, contra Quine, that the claims involved in our best physics are plausibly understood not to be claims to unqualified truth. Moreover, as the wide disagreement among analytic philosophers about what body of established opinion philosophers ought to accept indicates, it is not clear that the answers to these questions are part of established opinion, never mind that they are part of established opinion that ought to be accepted as is. De Laguna's critique of established opinion is plausibly at least partly a critique of the epistemically conservative interpretation of established opinion that is not part of established opinion, or that is at least a part of established opinion that requires criticism. To this extent, her critique does not beg the question. To be sure, she requires that we consider unrecognised ways in which well-established opinion is only partially true. But this is just to proceed on the basis of what is part of established opinion, specifically its recognition that its judgements are often qualified in unrecognised ways. In this way, established opinion requires going beyond itself. Again, no questions are begged here. In the next section, I will illustrate these points in discussing Lewis's reliance on Moorean facts.

Another aspect of de Laguna's position that needs clarification concerns whether she is not unduly narrowing down the approaches available to philosophers. Even if we are willing to accept the legitimacy of speculative philosophy (conceived of as

she understands it, or more broadly as any non-epistemically conservative approach to philosophy), why reject epistemically conservative approaches to philosophy?

In response, we should recognise that much of what is ordinarily part of epistemically conservative philosophy, insofar as it is not premised on conservatism itself, is also part of de Laguna's work. She does not object to—and as noted in the 'Introduction' section, contributes much to—conceptual clarification of questions, examination of the logical relations between the claims of the different sciences, empirical consideration of the nature of mental phenomena and knowledge, and so on. It cannot even be de Laguna's position that there is no truth in epistemic conservatism. She does recognise that established opinion is knowledge, after all. More broadly, she does not tend to critique positions without qualification. Thus, while she rejects the absolute idealist idea of a completely coherent system of knowledge, she views this idea as an informative abstraction that can have a regulative role. So too, while she rejects the idea of an immediately given datum as an abstraction, she thinks it too has a role in analysing experience (1909, pp. 413–414). Overall, de Laguna's critique of pragmatism involves a discussion of what partial truth and usefulness it contains. There is, accordingly, in principle room for epistemically conservative philosophy, though how much partial truth it offers is something speculative thinkers will have to determine.

In general, de Laguna aims to take up, within her system, the partial truth she can find in the positions and approaches she critiques. If de Laguna's view seems to suggest that progress in philosophy involves incorporating past philosophy in new systems and doing so through a dialectical process, she would agree. She sees her approach as Hegelian (Katzav, 2023b). And keep in mind that she thinks that conceptually articulated truth is partially true, which means that her own speculative philosophy is partially true and her approach thus limited. She takes these implications to be a virtue of her philosophy (1936). Here, she encourages us to develop further perspectives on knowledge and reality, and corresponding approaches to philosophy.

De Laguna's Hegelian side should also help to make clear that she does not think that since all philosophical systems are to some degree true, they are equal in a way that makes the choice between them a pragmatic matter. Such a view would be reminiscent of Rudolf Carnap's view of philosophy. According to Carnap, different linguistic frameworks, e.g. the phenomenalist or physicalist ones, provide us with concepts in terms of which claims and reasoning about phenomena can be couched. All such frameworks are systems of conceptual truths and, in this respect, are on a par. As a result, the choice between them is merely a pragmatic one. Once we have picked our framework, it can be used to provide a reductivist reconstruction of the theoretical knowledge of the sciences in terms of observation claims (1967). De Laguna, however, thinks that we ought to rank and choose between different philosophical systems according to how true they are. She is entirely clear, for example, that the kinds of reductivist ontologies that were endorsed by Russell, Carnap, and Quine are at the wrong end of the hierarchy of philosophical systems in terms of truth content and, as result, are not even a good place to start developing an adequate one. Pragmatism does better, in her view, so that it is a starting point for the development of her work (De Laguna & De Laguna, 1910, p. 123). Even so, her criticism

of pragmatism was harsh: the pragmatist view of truth, for instance, is 'true enough to be exceedingly false' (De Laguna & De Laguna, 1910, p. 160; Katzav, 2022).

A final point of clarification concerns whether, in identifying particular partial truths as partial truths, de Laguna does so relative to some purportedly unqualified truths. De Laguna argues for the partial truth of mechanics partly by appealing to the limited perspectives of other sciences. So too, she argues for the abstractness of mechanics by appealing to knowledge about its limitations that is internal to mechanics or at least to our existing knowledge. In general, when she articulates the limitations of some body of knowledge, it is from a perspective that she takes to be limited.

5 Some implications for Russell, Quine, and Lewis

If de Laguna is correct, epistemically conservative philosophy, such as analytic philosophy, should not exhaust philosophy. The speculative part of philosophy is essential to it. Contrary to Russell, then, philosophy should not assume the truth of common knowledge. Nor should it adopt an uncritical attitude towards judgements about sense data in order that they may serve as a reductive base for judgements about physical objects. The examination of the relationship between two bodies of judgements must involve considering the extent to which each is true. Similarly, contra Quine, we should not accept our best science along with its ontological commitments. Even those parts of science that are really believed by scientists are liable to be abstract and thus can, and should, be submitted to critique. Nor should we follow Lewis and assume that it is not part of philosophy's aim to offer any substantive criticism of established opinion when aiming to systematise it.

More broadly, de Laguna's critique is clearly relevant to much of contemporary analytic philosophy. Almost the entirety of analytic epistemology, for example, proceeds on the following two epistemically conservative assumptions: if it is true to say of someone that they know some proposition, then it is unqualifiedly true that what they possess is knowledge, and this knowledge is factive, that is, it is of an unqualifiedly true proposition (Buckwalter & Turri, 2020). The main analytic alternatives to Quine's approach to metaphysics are also epistemically conservative. Thus, for example, truthmaker theory aims to answer metaphysical questions by asking what makes bodies of established opinion, e.g. lawlike judgements or judgements about mental states, true. And proposed truthmakers tend to be identified on the basis of the supposed unqualified truth of some privileged area of opinion (MacBride, 2022).

To illustrate the implications of de Laguna's argument, let us look at Lewis's analysis of knowledge ascriptions in his 'Elusive Knowledge' (1996). Lewis starts by telling us that it is a Moorean fact that 'we know a lot', from everyday knowledge to knowledge about microscopic phenomena and knowledge about other minds. We thus know that we know a lot. Furthermore, Lewis assumes that knowledge is factive (1996, p. 549). It follows that, on his view, our knowledge of what we know is also factive, so that all that knowledge we know about counts, without qualification, as knowledge.

Indeed, Lewis takes it to be the primary virtue of his view of knowledge ascriptions that it, on the one hand, preserves the truth of the body of everyday knowledge ascriptions while, on the other hand, avoiding fallibilism, the view that correctly ascribed knowledge might be false. Scepticism would lead us to deny Moorean facts about what we know. Fallibilism, while less painful, sounds self-contradictory (1996, pp. 549–550). Lewis's uncritical starting point fully exhibits his epistemic conservatism.

Lewis's explicit statement of his position presents it as an analysis of knowledge, while he makes clear towards the end of the paper that the analysis is intended as an analysis of knowledge ascriptions (1996, pp. 566-567). I, accordingly, follow Jonathan Schaffer and reformulate Lewis's view in terms of knowledge ascriptions: 'a sentence of the form '*s* knows that *p*' is true in context *c* iff *s*'s evidence eliminates every not-*p* possibility relevant in *c*' (Schaffer, 2015, p. 476). So, for the ascription of knowledge of *p* to individual *s* to be true in a given context, *s*'s evidence must eliminate all possible scenarios in which *p* is false that are relevant in that context. For example, it is true to say that I know I am typing at this moment, if every relevant possibility in which I am not typing is eliminated by my evidence. Much of Lewis's paper is dedicated to spelling out seven rules specifying which possibilities of error are relevant and thus must be eliminated by the evidence (1996, pp. 554–560). One rule is that error that is always relevant is error about what is actual; the evidence must always rule out the possibility that *p* is actually false. A second rule is that any possibility of error that is, or should be, believed to some degree by the agent is relevant. A third rule is that possibilities of error that resemble other relevant possibilities of error cannot be ignored.

De Laguna would perhaps begin by objecting to Lewis's appeal to Moorean facts. She would suggest that everyday knowledge ascriptions do not appear to be unqualified; ascriptions are made for specific purposes and tend to involve committing ourselves to no more than is needed for those purposes. More specifically, when we say we know that *p*, we are not ordinarily committed to saying that, strictly speaking, we have knowledge, nor to saying that, strictly speaking, *p* is true. Whether we ever commit ourselves in these ways would require examining responses to queries about qualifications, something that is not generally evident in everyday circumstances. So, on the face of things, there is no reason for a theory of knowledge ascriptions to ascribe to us a commitment to unqualified truths.[3] We can accept scepticism and insist on knowledge of partial truths or, better, on knowledge of partial truths that itself need not be strictly speaking knowledge. So too, fallibilism is not, on the face of things, problematic. The tension between saying that we know something and admitting it might be false is mitigated when we note that claims to knowledge are not strict.

[3] It is equally true that, on the face of things, knowledge ascriptions that are not explicitly qualified can be interpreted as claims to unqualified truth. I have outlined some of de Laguna's reasons for resisting such interpretations above. The point I am making now is just that everyday knowledge ascriptions that are not explicitly qualified do not support Lewis's interpretation of them.

To be sure, we withdraw claims to knowledge when these are sufficiently undermined by evidence. De Laguna would explain this by saying, in light of her insistence that judgement adequacy is purpose relative, that knowledge claims tend to be withdrawn not merely on the grounds that they are false but, rather, because their falsity suffices to undermine their purposes. We might withdraw the claim to know that the train left at two in the afternoon when we find that it left a minute later, but not if our saying it left at two was part of an explanation of why, arriving at quarter past two, we missed the train.[4]

Lewis's theory of knowledge ascriptions, furthermore, fails to explain cases of knowledge ascription in which we ascribe knowledge of propositions widely recognised to be false. This category of cases of acceptance is among those de Laguna appeals to in arguing for Partiality. A claim properly justified by a mechanical model, for example, may be taken to be known for a variety of practical purposes despite the claim's recognised abstractness. Once we recognise that knowledge of partial truth is typically properly ascribed and thus that such ascriptions are typically not mistakes, we ought to recognise that they need to be accounted for.

No less fundamental, Lewis's theory of knowledge ascriptions is individualistic. It concerns the truth of ascriptions of knowledge to individuals on the basis of standards that they ought to meet. What the critical examination of established opinion suggests, however, is that getting even part of the truth requires collective effort. This is clearest in the sciences, where the practices of abstraction involve explicit, collective effort, while which knowledge ascriptions are permitted depends on how successful abstraction is in the relevant collective. But nuanced, everyday discourse, e.g. about colours or literature, makes explicit that everyday discourse also plausibly requires sustained development and maintenance by a collective. So, when specifying which standards of assertion are required for ascribing knowledge, it is plausible that one needs to refer to the state of the development of knowledge in a relevant community. The work of a theory of knowledge ascription will thus be less on developing a theory of individual knowledge ascriptions and more on developing a theory of communal knowledge ascriptions, that is, of what it is for something to be known by a community. Not surprisingly, this is de Laguna's focus.[5]

A theory of knowledge ascriptions arguably must thus include an empirical, sociological dimension concerning the available concepts and standards within relevant communities. But, recall, de Laguna claims that a theory of knowledge must also imply and be implied by a speculative metaphysics. Her arguments for this claim make clear that the same is true of a theory of knowledge ascriptions. A theory of knowledge ascriptions, no less than a theory of knowledge, will have implications about humans, their evolution, and reality. Moreover, a metaphysics needs to allow for correctly ascribed knowledge. Accordingly, a theory of knowledge ascriptions also ought to be developed in tandem with an adequate metaphysics. Lewis's theory of knowledge ascriptions is developed independently of his metaphysics. Moreover,

[4] See Buckwalter and Turri (2020) for recent empirical support for this response.

[5] De Laguna's work ties in here with a large body of recent work on group knowledge. See Tollefsen (2019) for a survey.

his metaphysics would not be up to the task of being extended to mesh properly with his theory of knowledge ascriptions. Because the metaphysics is not developed in light of a critique of established opinion, it cannot adequately inform us about the extent to which knowledge is of partial truth. Here, the problem is partly that Lewis's metaphysics is epistemically conservative. But part of the problem is also that his philosophy is insufficiently systematic. A proper critique of established opinion cannot proceed without adequately engaging with its various departments. Lewis's metaphysics was not developed through an engagement with the various special sciences.

6 De Laguna's argument in the twenty-first century

In the twenty-first century, some philosophers have begun to articulate arguments that are similar to de Laguna's critique of analytic philosophy. Looking at these recent arguments will allow me to examine her argument further. I will suggest that her critique is broader, and in some ways stronger, than available, related arguments. I will also start to consider responses to these arguments that are found in, or based on, recent literature and that aim to resist Partiality. My discussion will focus on Partiality rather than on Purpose Relativity since, as far as I can tell, it is Partiality that has at least to some extent been discussed in the relevant, recent literature.

Angela Potochnick argues for the centrality and pervasiveness of idealization in science, while accepting that science does provide us with unqualified causal knowledge (2017). Furthermore, she argues that the role of idealization in science means that it aims at understanding rather than knowledge and truth (2017, chapter 4). On her view, understanding is tied to our epistemic position and to our psychology, something which any metaphysics must avoid (2017, pp. 207–208). Indeed, scientists' values influence science's output, with the result that it is ill-suited to providing the kind of objectivity metaphysicians seek. For these reasons, metaphysics cannot be directly read off scientific judgements but requires further independent argumentation (2017, p. 208).

Potochnick's argument that idealisation is central to science reminds us that postlogical empiricist philosophy of science provides substantial resources for reiterating and further supporting Partiality. Moreover, Potochnick's view of idealisation in science is reminiscent of de Laguna's. That said, unlike Potochnick, de Laguna does not qualify her position by identifying any putatively unqualified scientific truths.

Furthermore, Potochnick targets attempts to directly read off metaphysics from science on the ground that metaphysics aims to be fully objective. De Laguna would agree that, at least some of the time, metaphysics is aiming at greater objectivity than science. When the metaphysician aims to provide a vision of reality which takes into account the partial perspectives of the sciences, what is being aimed at is a perspective that is more objective than those of the sciences. But de Laguna would point out, as she does in her critique of immediatism, that the pragmatic considerations which suggest that scientific and everyday judgements must be partial truths judged adequate for specific purposes apply to metaphysical judgements. Indeed, given how wide the use of partial truth is in other

fields and how metaphysics must to a substantial extent rely on and develop out of available knowledge, it would be implausible to suppose that metaphysics could somehow avoid partial truth. In any case, some of the tasks require developing theses that fit local, scientific aims and limited epistemic abilities, as was the case when de Laguna proposed guidelines for psychology. For these reasons, metaphysics should not differentiate itself from science by having full objectivity as an immediate aim. By implication, this aim should not be a reason to avoid directly reading off conclusions from science. Moreover, while increased objectivity will sometimes be a reason to do so, it is not generally such a reason. More careful attention to the differing goals of metaphysicians and scientists is needed to see why metaphysicians cannot simply read of their metaphysics from science.

We can add, also on behalf of de Laguna, that Potochnick underestimates the extent of the challenge posed by the pervasiveness of partially true scientific judgements. De Laguna's argument targets epistemically conservative philosophy in general. On Potochnick's view, by contrast, the challenge is specifically to metaphysics that aims to read its conclusions directly off science. Because of this, for example, it is unclear whether her challenge applies to Quinean ontology. Rather than simply reading off an ontology from our best science, Quine would have us do so from science that is reconstructed with the help of logic and the use of paraphrase.

Finally, the success of Potochnick's argument depends on whether one agrees with her claim, following Catherine Elgin (2017), that because idealisation is central to science, science does not aim at truth and knowledge but, instead, aims at the goal of understanding, which is meant to be non-factive. One can, after all, accept that abstraction is central to science and still insist that science aims at truth (Khalifa 2020; Rice, 2021). By contrast, de Laguna's argument turns on relatively uncontroversial claims about the difference between the aims of scientists and the aims of philosophers.

A second contemporary argument that I want to consider here is developed by Elijah Millgram. Millgram argues (2009) that partial truth and the failure of bivalence—the principle that all propositions are either true or false—are pervasive in human discourse, with a limited number of areas where unqualified truth and bivalence dominate, including mathematics, the hard sciences, and the classification of organisms and manufactured kinds. According to Millgram, the areas where partial truth is not pervasive are areas where bivalence is engineered, e.g. by designing cars that can be neatly classified as belonging or not belonging to well delimited kinds. The reason that partial truth and the failure of bivalence are pervasive is that, to reason effectively in a messy world, our premises need to be partially true in one way or another and our inferences cannot preserve the full truth. Moreover, once we realise the pervasiveness of partial truth, analytic metaphysics must change. Here, Millgram does not appear to offer a general argument, but uses three case studies to illustrate the problematic consequences that follow from insisting on bivalence in doing metaphysics (2009, p. 149). For example, he claims that if we follow Quine's approach to metaphysics in examining the ontological commitments of Newtonian theories, we will assume that they are true rather than partially true. We will then be unable to recognise that their commitments are there for reasons other than ontological ones

and we will have to accept commitments to absurdities nobody believes in, e.g. point particles or rigid bodies (2009, pp. 158-160).

Millgram's argument differs from de Laguna's in two ways which I will note here. First, de Laguna argues that the evolution of mathematics and the hard sciences suggests that they too are domains of abstraction and hence of partial truth. Second, de Laguna's critique of analytic philosophy does not depend on the rejection of bivalence and the piecemeal drawing out of the implications of this rejection. She notes that the centrality of partial truth directly challenges any epistemically conservative approach to philosophy. Whether this requires an extensive rejection of bivalence-driven reasoning is not something she takes a stand on. Moreover, it seems she could defend working with bivalence for many purposes. For example, given her view that which judgements we should accept depends on our purposes, she could recommend keeping bivalence for many everyday purposes on the ground that it is good enough for these purposes. For those with epistemically conservative tendencies, permission to keep bivalence will be an advantage. That de Laguna's case against analytic philosophy is not tied to considerations about bivalence is also an advantage because it means de Laguna is not required to show piecemeal that insisting on bivalence is problematic.

Let me now turn to considering recent challenges to arguments such as de Laguna's. Taking issue with Millgram, Elgin argues that the context dependence of the meanings of judgements as well as the qualification of judgements allow us to make unqualifiedly true judgements despite the complexity and messiness of our world. So, we can to some extent explain how we succeed in our everyday judgements without appealing to the notion of partial truth. For instance, calling such diverse things as hair, sunsets, and cars red suggests to Millgram that they are not, strictly speaking red. However, says Elgin, if we are talking about hair, the sense of 'red' being used is the one that fits the context, eliminating the appearance that, strictly speaking, hair is perhaps not red. In addition, we sometimes explicitly qualify our judgements in ways that replace what would be a falsehood with less committal but unqualifiedly true judgements. We might say, for example, that the table is reddish or that the measurements are roughly correct (2011, pp. 316–318).

De Laguna would perhaps respond by reminding us that, as her discussion of knowledge already indicates, abstraction extends to both contextually specified and qualified judgements. Millgram rightly responds along similar lines to Elgin (2011, pp. 341–343). We can add that relatively fine contextual distinctions require considerable effort, and are made to the extent that time and expertise require and subject matter permits. Most of the time, much nuance is not in play and is limited when it is in play. So too, such nuance cannot address unrecognised abstraction, or worries due to the perspectival nature of judgement. More importantly, Elgin accepts that much of our reasoning involves false judgements and is merely 'resisting Millgram's slide into a vast array of partial truths' (2011, p. 321). Given this recognition and the limited, tentative nature of the resistance involved, the call for further investigation of the limitations of judgement in everyday contexts remains warranted.

A final challenge to arguments such as de Laguna's is based on the debate within the philosophy of science about scientific realism, that is, about whether our best scientific theories are approximately, if not unqualifiedly, true representations of a mind-independent world. One kind of prominent argument for scientific realism proceeds by rehearsing scientific arguments for specific theoretical claims, e.g. by rehearsing the scientific case for the existence of electrons (Chakravartty, 2017). Such arguments could be used to justify accepting that science provides some unqualified theoretical truths and thus help to make a case against Partiality and for epistemic conservatism. De Laguna, however, would respond that she has already argued that the acceptance of claims by scientists is not unqualified, and that the kinds of argument scientists offer for them are not arguments for unqualified truth.

There is a second kind of prominent argument for scientific realism, namely no miracles arguments. According to this kind of argument, we should infer the truth, or at least the approximate truth, of our best scientific theories from their empirical successes. Moreover, we should do so on the ground that the truth/approximate truth of these theories is the best explanation of their successes (Chakravartty, 2017).

De Laguna would likely view the no miracles argument as another example of an attempt to do epistemology without properly developing an appropriate vision of reality. The no miracles argument assumes an inference to the best explanation-based account of knowledge but is generally evaluated with only consideration of a minimal amount of metaphysics, e.g. considering whether truth about a mind-independent reality is needed to explain the successes of science. There is, furthermore, the question whether a philosophy of science that, like de Laguna's, explains the successes of theories by supposing only that they offer qualified truths is any less well able to explain these successes than one that supposes that theories include unqualified truths. In any case, it is unclear how the main forms of scientific realism available today might support an epistemically conservative philosophy. A consideration of selective scientific realism, which is perhaps the most prominent form of contemporary scientific realism, will serve to illustrate this point.

Extensive discussion of the pessimistic meta-induction has made it hard to accept even the best current scientific theories without qualifying this acceptance in one way or another. The meta-induction is roughly that since most past, successful scientific theories have turned out to be (substantially) false, we ought to expect current successful scientific theories to do so too. A leading response to this argument has been to adopt some form of selective realism. More specifically, the response is to endorse accepting the approximate truth of our best theories, where such truth comprises the truth or approximate truth of the parts of theories that are essential to their empirical successes. The idea is that these parts of theories have been incorporated into subsequent theories and thus can still be regarded to be true or approximately true. Importantly, the approximate truth of a theory has, in this context, typically been understood to involve the theory including important unqualified truths, e.g. unqualified truths about which entities, causes or structures exist. So, as Frigg and

Nguyen (2021) point out, belief in the possession of unqualified truth remains an important part of selective scientific realism.

Yet, even those parts of theories which are taken to be privileged as to truth are usually only taken to be approximately true and thus not fit objects for unqualified acceptance. In addition, it is hard to identify which parts of theories are essential to empirical success (Rowbottom, 2019; Vickers, 2013). As a result, claims that certain parts of theories are true or approximately true are themselves contestable. These claims, accordingly, serve as a weak basis for curtailing criticism of parts of theories and thus for supporting epistemic conservatism.

7 Conclusion

De Laguna's argument provides a viable critique of analytic philosophy. Indeed, her argument is broader and potentially more forceful than more recent steps in a similar direction, partly because it specifically tackles the epistemic conservatism that is central to analytic philosophy and appeals to the relativity of acceptance to our purposes. No less important, in developing her argument, de Laguna engages in the kind of systematic critique of established opinion that is an essential part of speculative philosophy. De Laguna thus provides us with an exemplar of how speculative philosophy can begin.

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References

Andrus, G. (1899). *Mind and motion*. Grace A. de Laguna Papers, Special Collections Department, Bryn Mawr College Library.

Bergson, H. (1889). *Essai sur les données immédiates de la conscience*. Félix Alcan.

Bosanquet, B. (1914). Science and philosophy. *Proceedings of the Aristotelian Society, 15*, 1–21. http://www.jstor.org/stable/4543873

Bricker, P. (2016) Ontological commitment. The Stanford Encyclopedia of Philosophy, Edward N. Zalta (ed.). https://plato.stanford.edu/archives/win2016/entries/ontological-commitment/
Buckwalter, W., & Turri, T. (2020). Knowledge, adequacy, and approximate truth. *Consciousness and Cognition, 83*, 102950. https://doi.org/10.1016/j.concog.2020.102950
Carnap, R. (1967). In R. A. George (Ed.), *The Logical Structure of the World and Pseudoproblems in Philosophy*. University of California Press.
Chakravartty, A. (2017) Scientific realism. The Stanford Encyclopedia of Philosophy, Edward N. Zalta (ed.). https://plato.stanford.edu/archives/sum2017/entries/scientific-realism/
Creighton, J. E. (1901). Methodology and truth. *The Philosophical Review, 10*(1), 45–56.
De Laguna, G. A. (1909). The practical character of reality. *The Philosophical Review, 18*(4), 396–415.
De Laguna, G. A. (1916). Sensation and perception II: The analytic relation. *The Journal of Philosophy, Psychology and Scientific Methods, 13*(23), 617–630.
De Laguna, G. A. (1917a). Phenomena and their determination. *The Journal of Philosophy, Psychology and Scientific Method, 26*(6), 622–633.
De Laguna, G. A. (1917b). The limits of the physical. In G. H. Sabine (Ed.), *Essays in Honour of James Edwin Creighton by Former Students* (pp. 175–184). The MacMillan Company.
De Laguna, G. A. (1918). Dualism in animal psychology. *The Journal of Philosophy, Psychology and Scientific Method, 15*(23), 617–627.
De Laguna, G. A. (1919). Emotion and perception from the behaviorist standpoint. *The Psychological Review, 26*(6), 409–427.
De Laguna, G. A. (1927). *Speech: Its Function and Development*. Yale University Press.
De Laguna, G. A. (1934). Appearance and orientation. *The Journal of Philosophy, 31*(3), 72–77.
De Laguna, G. A. (1936). Being and knowing. *The Philosophical Review, 45*(5), 435–456.
De Laguna, G. A. (1951). Speculative philosophy. *The Philosophical Review, 60*(1), 1–19.
De Laguna, G. A. (1966). *On Existence and the Human World*. Yale University Press.
De Laguna, G. A. (1981). The individual and the continuum. In P. Cohn (Ed.), *Transparencies: philosophical essays in honor of J. Ferrater Mora* (pp. 173–176). Humanities Press.
De Laguna, T., & De Laguna, G. A. (1910). *Dogmatism and Evolution: Studies in Modern Philosophy*. The MacMillan Company.
Elgin, C. Z. (2011). Language, partial truth and logic. *Analysis, 71*(2), 313–322.
Elgin, C. Z. (2017). *True Enough*. MIT Press.
Frigg, R., & Nguyen, J. (2021). Mirrors without warnings. *Synthese, 198*, 2427–2447. https://doi.org/10.1007/s11229-019-02222-9
Hacker, P. M. S. (2012). The relevance of Wittgenstein's philosophy of psychology to the psychological sciences. In P. Stekeler (Ed.), *Wittgenstein: Zu Philosophie und Wissenschaft, Proceedings of the Leipzig Conference on Wittgenstein and Science 2007* (pp. 205–223). Verlag.
Harman, G. (1967). Quine on Meaning and Existence. *II. Review of Metaphysics, 21*(2), 343–367.
Katzav, J. (2018). Analytic philosophy, 1925–69: Emergence, management and nature. *British Journal for the History of Philosophy, 26*(6), 1197–1221.
Katzav, J. (2022). The de Lagunas' dogmatism and evolution, overcoming modern philosophy and making post-Quinean analytic philosophy. In E. Schliesser (Ed.), *Neglected Classics of Philosophy* (Vol. 2, pp. 192–214). Oxford University Press.
Katzav, J. (2023a). Grace A. de Laguna's analytic and speculative philosophy. *Australasian Philosophical Review, 6*(1), 1–20.
Katzav, J. (2023b) "Response to commentary on Grace de Laguna's analytic and speculative philosophy," *Australasian Philosophical Review*
Katzav, J. (forthcoming). Speculative philosophy of science vs. logical positivism: Preliminary round. In S. Verheagh (Ed.), *American Philosophy and the Intellectual Migration: Pragmatism, Logical Empiricism, Phenomenology, Critical Theory*. De Gruyter.
Katzav, J., & Vaesen, K. (2017). On the emergence of American analytic philosophy. *British Journal for the History of Philosophy, 25*(4), 772–798.
Khalifa, K. (2020). Understanding, Truth and Epistemic Goals. *Philosophy of Science, 87*(5), 944–956.
Lewis, D. (1973). *Counterfactuals.* Blackwell.
Lewis, D. (1996). Elusive knowledge. *Australasian Journal of Philosophy, 74*(4), 549–567.
MacBride, F. (2022) Truthmakers. The Stanford Encyclopedia of Philosophy, Edward N. Zalta (ed.). https://plato.stanford.edu/archives/fall2022/entries/truthmakers/

Millgram, E. (2011). Replies. *Analysis, 71*(2), 341–351.
Millgram, E. (2009). *Hard Truths*. Wiley-Blackwell.
Potochnick, A. (2017). *Idealization and the Aim of Science*. Chicago University Press.
Quine, W. V. (1948). On what there is? *The Review of Metaphysics, 2*(5), 21–38.
Quine, W. V. (1953) "On mental entities." In Contributions to the Analysis and Synthesis of Knowledge 3, Proceedings of the American Academy of Arts and Sciences, 80(3): 198-203.
Quine, W. V. (1960). *Word and Object*. Mass MIT Press.
Radhakrishnan, S. (1929). *An Idealist View of Life*. George Allen and Unwin Ltd.
Rice, C. (2021). Understanding realism. *Synthese, 198*, 4097–4121.
Rowbottom, D. P. (2019). Scientific realism: What it is, the contemporary debate, and new directions. *Synthese, 196*, 451–484. https://doi.org/10.1007/s11229-017-1484-y
Royce, J. (1899). *The World and the Individual* (Vol. 2). MacMillan.
Russell, B. (1914). *Our Knowledge of the External World as a Field for Scientific method in Philosophy*. George Allen and Unwin Ltd.
Schaffer, J. (2015). Lewis on knowledge ascriptions. In J. Schaffer & B. Loewer (Eds.), *A Companion to David Lewis* (First ed., pp. 573–590). Wiley-Blackwell.
Tollefsen, D. (2019). The epistemology of groups. In M. Fricker, P. Graham, D. Henderson, & N. Pedersen (Eds.), *Routledge Handbook of Social Epistemology* (pp. 263–273). Routledge.
Verhaegh, S. (2019). The behaviorisms of Skinner and Quine: Genesis, development, and mutual influence. *Journal of the History of Philosophy, 57*(4), 707–730.
Vickers, P. (2013). A confrontation of convergent realism. *Philosophy of Science, 80*(2), 189–211. https://doi.org/10.1086/670297
Ward, J. (1899). *Naturalism and Agnosticism* (Vol. 1 & 2). The MacMillan Company.