



# Grace de Laguna's Evolutionary Critique of Pragmatism

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## ABSTRACT

This commentary aims to place Grace de Laguna's critique of pragmatism in its historical context. It examines her 1904 response to Henry Heath Bawden, her 1909 attack on John Dewey's immediate empiricism, and her 1910 book *Dogmatism and Evolution*, focusing on the following question: Why did she describe her approach as an attempt to complete the pragmatists' Darwinian revolution in logic?

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Grace Mead Andrus and Theodore de Leo de Laguna arrived at Cornell University in 1900—Andrus as an undergraduate and de Laguna as a Sage Fellow in Philosophy and Ethics, working toward his PhD [Cornell 1901: 378, 403]. The most prominent figures in the Cornell department were the idealist James Edwin Creighton and the experimental psychologist Edward Bradford Titchener. They had recently been joined by Evander Bradley McGilvary, a Hegel scholar who may have supervised de Laguna's MA thesis at Berkeley [University of California 1899: 250, 367; University of California 1900: 374].

It was at Berkeley two years earlier that William James [1898], citing a little-known article by Charles Sanders Peirce [1878], introduced pragmatism to the broader philosophical world—with McGilvary and de Laguna in attendance. They were also there nine months later when John Dewey told the predominantly idealist crowd that 'the conception of evolution' had broken down the wall between psychology and philosophy:

There is a sense in which philosophy must go to school to the sciences; in which it must have no data save such as it receives at their hands; and be hospitable to no method of inquiry or reflection not akin to those in daily use among the sciences [Dewey 1899: 171, 178–9].<sup>1</sup>

Creighton and McGilvary, although opposed to the empiricism of James and Dewey, nevertheless embraced evolution. Like many philosophers at the time, they saw Hegel and Darwin as part of the same trend in nineteenth century thought [Pearce 2020: ch. 4]. Evolution and its implications were thus frequently discussed at Cornell. De Laguna's doctoral thesis probably stemmed from a graduate seminar

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<sup>1</sup> James and Dewey visited Berkeley during the 1898–99 academic year (in August and May, respectively), at which time de Laguna was an MA student and McGilvary an assistant professor there.

with McGilvary on ‘the Ethics of Evolution’ [Cornell 1901: 115; T. de Laguna 1901]. As an undergraduate, Andrus took Creighton’s class on the history of philosophy, which devoted considerable time to ‘an examination of the philosophical meaning and importance of the notion of Evolution or Development’ [Cornell 1902: 112]. Anticipating her later criticism of pragmatism, Andrus even argued in her BA thesis that Herbert Spencer’s theory of knowledge was undermined by his pre-evolutionary metaphysics [Andrus 1903: 48].<sup>2</sup>

As this background suggests, my commentary aims to place Grace Andrus de Laguna’s critique of pragmatism—partly co-authored with her husband Theodore—in its historical context. Looking forward, Joel Katzav [2022a] rightly sees in this critique several anticipations of W.V.O. Quine’s views. I will instead look back, focusing on the following question: Why did she describe her philosophical approach as an attempt to complete the pragmatists’ Darwinian revolution in logic?

Pragmatism began making real waves in 1903. It was starting to look more like a movement, with the appearance of several books endorsing the approach [James 1902; Dewey 1903; Schiller 1903]. By this time, Andrus had started her PhD at Cornell—the latest in a series of women doctoral students in the department—and de Laguna had returned there as an honorary fellow [Cornell 1904: 454, 467; Rogers 2021: ch. 2]. At the third meeting of the American Philosophical Association that December, where de Laguna was elected a member, pragmatism was a major topic. Both Creighton and Josiah Royce—in his presidential address—gave idealist critiques of pragmatism, and ‘the presence of several representatives of the [University of] Chicago faculty of philosophy led to the discussion of a number of points raised in the two papers’ [Bawden 1904a: 425–7; American Philosophical Association 1904: 204].

De Laguna and Andrus soon began developing their own critiques. In a sympathetic review of Dewey [1902], de Laguna endorsed pragmatism’s functionalist approach to ethics but argued that Dewey’s privileging of the genetic method was inappropriate. According to de Laguna, the current success of logical canons or ethical norms was more important than their historical genesis: ‘It is their present functional value apart from all questions of origin, that is the direct and sufficient evidence of their trustworthiness’ [T. de Laguna 1904: 333–4].

A few months later, Andrus criticized a series of papers by Henry Heath Bawden, a pragmatist who received his PhD at Chicago in 1900 [Bawden 1904a; University of Chicago 1904: 10]. Bawden claimed that the distinction between the psychical and the physical was merely functional: ‘What constitutes the psychical quality is not some ontological distinction of substance ... The difference is a functional one only, a teleological or instrumental distinction.’ He identified experience as physical except ‘where it is undergoing reconstruction’ [Bawden 1902: 483]. Andrus accused Bawden of shifting between fundamentally inconsistent standpoints—sometimes writing from the point of view of philosophy, treating the psychical and the physical as correlative and constituent elements ‘in the content of consciousness’, and other times writing from the point of view of biology, treating them as ‘mutually exclusive phases or stages in the functioning of a biological organism’ [Andrus 1904a: 435].

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<sup>2</sup> Grace de Laguna’s transcripts and theses can be viewed by researchers at the Division of Rare and Manuscript Collections, Carl A. Kroch Library, Cornell University. Thanks to Alexander Livingston and Ani Chen for arranging access to these documents.

The crux of her criticism was that Bawden had failed to distinguish between the partial accounts of the different sciences and the ‘final and complete’ account of reality that is the goal of philosophy:

[Bawden’s first statement attempts] to treat the problem from the standpoint of experience, and to interpret it in terms of concrete reality. In the second position, however, we find this standpoint left behind, and an account frankly given in terms of biology, which, from the first standpoint, could only represent a view that is abstract and provisional. [Andrus 1904a: 439–40]

Andrus also pointed to the ambiguity of terms such as ‘tension’, which Bawden used both in ‘Dewey’s sense of a conscious difficulty’ and as ‘a biological term denoting lack of adjustment of the organism to environment, which gives rise to conscious experience itself’ [*ibid.*: 442].

Bawden agreed with Andrus’s outline of the relationship between the sciences and philosophy: ‘If philosophy is anything, it is the attempt to ... interpret experience in general in terms of a synthesis of the abstractions of the special sciences’ [Bawden 1904b: 543]. But she denied that he had actually provided such a synthesis, arguing that philosophy should occupy ‘a standpoint at once distinct from, and inclusive of, the special fields which the sciences investigate’, and should thus ‘scrupulously avoid the technical abstract terms of the special sciences.’ Because Bawden had simply taken terms such as “‘function” (in the biological sense)’ and ‘applied them to experience at large’, he had effectively abandoned ‘the more inclusive viewpoint of philosophy’ [Andrus 1904b: 663].

Andrus’s position in 1904 was similar to that of Creighton, who had recently argued that the task of philosophy ‘cannot be accomplished by forsaking its own standpoint, and adopting that of other sciences in the attempt to imitate their procedure.’ He believed that philosophy ought to look at the facts of the sciences ‘from the standpoint of complete and self-conscious human experience’ [Creighton 1902: 235, 237]. Echoing her teacher, Andrus criticized Bawden for treating experience as a biological or psychological process, insisting that experience means ‘reality as it exists in the self-conscious life of the individual, concrete reality as it is immediately given in relation to the needs of self-conscious life’ [Andrus 1904b: 664–5].

Despite this partial endorsement of idealism, both Andrus and de Laguna—like Creighton—were also functionalists, a position they shared with the more empirically inclined pragmatists. De Laguna praised Dewey in 1904 for giving ‘a true and luminous account of the application of the evolutionary method to ethics’; by 1905 he was describing this method as one ‘that is used, with more or less freedom, by almost every recent ethical writer of importance. In a word, the time has passed when a moralist can afford to be either for or against evolutionary ethics’ [T. de Laguna 1904: 330, 1905: 589]. Likewise, Andrus noted that her opposition was only to Bawden’s specific claims; she accepted the

functional view of the categories of experience ... which not only has been current in philosophy at least since the time of Hegel, but ... which is almost universally accepted by the best philosophical thought of the present time [Andrus 1904b: 660].

Andrus and de Laguna were married in 1905. After two years in Michigan, they moved to Bryn Mawr College in 1907 and taught there for the rest of their career. Their first classes at the college were connected to their research interests: Grace taught ‘Empiricism and Rationalism’ as well as ‘Problems of Metaphysics’, which

covered mechanism vs. teleology, monism vs. pluralism, and so on; Theodore taught a seminar on ‘English evolutionary ethics’ and an elective on the ‘Theory of Pragmatism’, which included ‘a sketch of the Darwinian theory and of its application to functional psychology’ [Bryn Mawr 1907: 128–30, 1908: 134–5, 1909: 97].

Despite Theodore’s class on pragmatism, it was Grace de Laguna who struck first, arguing that although the pragmatists were committed to two ‘distinctive doctrines’, instrumentalism and immediatism, a fuller commitment to the former should lead them to abandon the latter. She linked instrumentalism to the ‘evolutionary method’, which ‘prescribes that, in order to understand the existing nature of anything, we inquire into its origin and development, and that this development be in every case explained as an adjustment to the specific conditions under which it has taken place.’ When applied to logic, this method views ‘thought itself... as a mode of organic adjustment to environment’, treating all meanings as ‘relative to the specific conditions which have called them forth and to the functions which they perform’ [G. de Laguna 1909: 396].

According to Grace de Laguna, the evolutionary method teaches not only that the distinction between reality and illusion is ‘to be found in the particular circumstances and exigencies which have given rise to it’, but also that any ‘general theory of reality... must be functional; that is, it must be an account of the general service which the distinction “real–unreal” performs in our actual processes of thought’ [*ibid.*: 398]. Dewey’s defence of immediatism or ‘immediate empiricism’ seemed to betray this pragmatist attitude, emphasizing the absolute uniqueness of any particular experience and postulating that ‘things... are what they are experienced as’ (Dewey [1905: 393, 398]; see also James [1904: 485–6]).

She pointed out that identifying reality with immediate experience neglects the function of the real:

To experience a thing as real is to experience it as having reference to that which is not contained in the experience itself. And here we come into open contradiction with immediatism. For this is precisely what the things of immediate experience are not,—good for anything else in the way of experience. The ‘real,’ I should say, is never immediately experienced at all; it is always ideal. [G. de Laguna 1909: 405]

That is, we cannot immediately experience anything as real because the distinction between reality and illusion always refers to something beyond immediate experience. There was, however, a key difference between de Laguna’s position and that of Dewey’s usual opponents: for her, the question of ‘what things really are’ referred not ‘to any reality lying beyond experience, but to other possible experiences of the things’ [*ibid.*: 406].

Using Dewey’s own experimental attitude against him, Grace de Laguna insisted that any experience of a thing as X is ‘an interpretation, an assumption on which we act in our dealings with it; and the question as to the real nature of the thing refers to the verification of the assumption’ [*ibid.*: 406]. The real is always about ‘other possible experiences’ that would confirm or disconfirm the interpretation, even when these are never actually experienced:

The characterization of the thing as really this or that means that after investigation we regard this promise as confirmed; not necessarily because we have experienced the actual fulfillment of the promise, but because satisfactory evidence has been adduced that the promise would be fulfilled under certain specified conditions. [*ibid.*: 407]

Dewey claimed that things are what they are immediately experienced as, but de Laguna countered that things are fundamentally mediate, the end result of constant experimentation:

It is just because a thing does stand in such a diversity of relations to us, and because at the same time it maintains a certain experienced identity of character amidst this diversity of relationship, that it becomes a “thing” at all [ibid.: 409].

She concluded her article by responding to a possible pragmatist objection: treating things as ideal objects that do not correspond to anyone’s immediate experience will inevitably lead us back to the idealist abstraction of a perfect system, the object of absolute knowledge [ibid.: 410]. Her answer was that pragmatists should treat this perfect system as an idealization or ‘limiting conception’, akin to the frictionless planes and pulleys of mechanics. Idealizations are always false and often misleading, but they are also necessary and useful both in science and in everyday life—so why not in philosophy? According to de Laguna, whenever we ascribe reality to anything we are implying

not only that ... it has stood the test of inquiry, but also that it may be counted upon similarly to bear the light of any future inquiry—that is to say, no matter what further investigation might reveal about the thing, what we know now will stand as an integral part of the enlarged knowledge of it [ibid.: 413].

This conception of reality and inquiry resembles that of Peirce, for whom ‘the real’ was represented by ‘the opinion which is fated to be ultimately agreed to by all who investigate’ [Peirce 1878: 300].<sup>3</sup> But although de Laguna might have been willing to view inevitable agreement as another limiting conception, she preferred to speak in terms of a quasi-Kantian ‘as if’, with ascriptions of reality always relative to their specific purposes: ‘the real nature of the thing may be regarded *as if* completely determinate ... [when] its indeterminateness is negligible with reference to the purpose for which the investigation has been undertaken’ [G. de Laguna 1909: 414; cf. Albee 1906: 273].

Her discussion also shows that by 1909 she had abandoned the view that philosophy could provide a complete account of reality, synthesizing the partial standpoints of the various sciences. Philosophical accounts are just as partial:

Our actual investigations into the real nature of anything never aim at the description of this nature in its infinite entirety. On the contrary, they 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 [ibid.: 414; see also Olen 2022].

It is this pragmatist criterion that rules out Dewey’s account of reality as immediate experience. De Laguna even slyly suggested that the notion of immediate experience itself—‘the given’—ought to be considered ‘simply another *limiting conception*’ [G. de Laguna 1909: 415]. Dewey’s immediatism was controverted by his instrumentalism.

Although she did not explicitly endorse Dewey’s evolutionary method in her 1909 paper, de Laguna did argue that a more complete application of it would undermine certain elements of pragmatism. Grace and Theodore de Laguna [1910] extended

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<sup>3</sup> De Laguna did not cite Peirce, who was not widely read at the time. For related ideas see Dewey [1900: 482–6] and James [1907: 249–50].

this strategy in their book *Dogmatism and Evolution*. They fully embraced the functional psychological basis as well as the evolutionary method of the pragmatists, using this method to criticize several pragmatist doctrines:

Pragmatism is notable for the first unreserved adoption of the evolutionary standpoint and method in logical research ... Our opposition to the pragmatists, like their own to Herbert Spencer, is due to the fact that they have not carried their evolutionism far enough—that the leaven of the old dogmatism still works in them. [*ibid.*: 148]

Thus, the arc of the book was given in its title: from dogmatism to evolution.

The de Lagunas presented the following historical trajectory: early modern philosophers shared a dogmatic commitment to the existence of some ultimate, absolute, unchanging element as the basis of knowledge and reality, whether a simple sensation or a highest concept; Kant and Hegel planted the seeds of a revolt against this dogmatism but failed to germinate them; then with pragmatism the revolt grew quickly, and the de Lagunas were going to bring it to fruition. Evolutionary ideas had nourished the revolt, since nothing was ‘more characteristic of the old dogmatism than the general incapacity of thinkers of both schools to recognize the fact (or the possibility) of an evolutionary progress of human knowledge’ [*ibid.*: 19]. The de Lagunas, in contrast, declared that ‘the progress of science is a true evolution, an organic growth, in which no part is wholly unaffected.’ That is, scientific progress does not proceed ‘by the addition of new facts and principles which ... leave the old unchanged and undisturbed.’ Previously trusted theories are inevitably altered: they are ‘narrowed in their field of application, or, by inclusion in more comprehensive generalizations, become possessed of a new significance’ [*ibid.*: 18].

Dewey famously argued that the evolutionary ideas of Spencer and Darwin had led to a revolution in philosophy:

A thoroughgoing evolution must by the nature of the case abolish all fixed limits, beginnings, origins, forces, laws, goals. If there be evolution, then all these also evolve, and are what they are as points of origin and of destination relative to some special portion of evolution. They are to be defined in terms of the process, the process that now and always is, not the process in terms of them. [Dewey 1904: 175]

So why was Dewey’s revolt against dogmatism incomplete? Because while emphasizing the biological and psychological basis of thought, he and the other pragmatists had neglected its evolutionary progress.

Dewey stressed the need for logic to refocus on the ‘*specific situation*’ and ‘*specific purpose*’ of thought [Dewey 1903: 4]. But the de Lagunas argued that this approach contradicted itself by ignoring the special function of scientific and formal concepts:

We believe that the development of the judgment is marked by increasing definiteness and increasing universality, that is to say, by the greater and greater delicacy with which it is contradicted or confirmed by experience, and by its gradual transcendence of the limits of the particular interests and the particular occasion which have called it forth. [T. de Laguna and G. de Laguna 1910: 149–50].

All of the de Lagunas’ more specific criticisms of pragmatism were outgrowths of this basic critique: treating thought as just another form of adaptation to environment, the pragmatists had allowed the biological basis of thought to obscure the later stages of its evolution. Thus pragmatism, ‘the first whole-hearted attempt at an appreciation of the significance of Darwinism for logical theory[,] ... has only half succeeded’ [*ibid.*: 123–4].

The groundwork for this 1910 critique had been laid by the de Lagunas in 1904. Theodore had argued that Dewey's evolutionary method in ethics should privilege current function over historical genesis. Grace had chastised Bawden for mixing up biological and philosophical accounts of experience. Now they criticized pragmatism for paying attention only to the biological origins of thought at the expense of its evolutionary development. They agreed with the pragmatists that 'the survival-value of consciousness consists in its enabling the organism to learn', with its primary function 'the modification of habit', but they argued that the later evolution of consciousness 'is only remotely and to a limited degree controlled by natural selection; ... as the process advances in complexity, comparative survival values have less and less to do with its determination' [*ibid.*: 125, 138].

The de Lagunas claimed that a more thoroughgoing functionalist inquiry into the evolution of thought would reveal that although 'its roots are in practical and social life', the key feature of its 'later and more complex stages' is 'the increasing indirectness of its control of conduct.' That is, 'as cognition grows more efficient, it grows more indirect in the performance of its function, this increasing indirectness being intimately correlated with an increase in the organization and mutual dependence of concepts' [*ibid.*: 197–8]. This growing indirectness and organization, they argued, could be seen in the transition from common sense to science as well as in the progress of the various sciences:

What thus takes place in the course of intellectual evolution is that the organization of concepts tends to fall into groups, varying in size and in the closeness of their interrelations. At the one extreme are the loose apperceptive systems of common life, which vary with occupation, habits, and interests, as well as from individual to individual; at the other, the special sciences. It is within these last, and particularly within the abstract sciences, that the process of integration and fixation of concepts has been carried farthest. Because the special science is so remote in its reference to common life and so entirely controlled in its progress by its own special end, it becomes a system relatively independent of the great body of cognitive experience. [*ibid.*: 200]

Dewey had focused on the connection between knowledge and the problems of practical life, but the de Lagunas argued that more evolved forms of scientific knowledge—mathematics and the 'abstract sciences'—are relatively independent of this practical basis. It is this relative independence that allows them to play a special role in our understanding of the world.<sup>4</sup>

Building on this point, they also criticized the pragmatists' rejection of formal logic. Dewey, for example, had declared that the distinctions of formal logic 'demand interpretation from the standpoint of use as organs of adjustment to material antecedents and stimuli' [Dewey 1903: 8]. But as Katzav [2022b] notes, 'the de Lagunas think of the indirectness of concepts as the key evolutionary advantage of concepts.' That is, 'the reference of a concept to a mode of conduct is never direct. On the contrary, thought is a long-circuiting of the connection [between stimulus and response], and its whole character depends upon its indirectness' [T. de Laguna and G. de Laguna 1910: 206]. Thus, they concluded that the evolutionary method should lead the pragmatist to restore theoretical values such as logical validity 'to their ancient position of

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<sup>4</sup> Like the pragmatists, the de Lagunas privileged scientific knowledge, assuming that it represented the key difference between primitive and civilized people; at one point they also interpreted this difference in explicitly racist terms [T. de Laguna and G. de Laguna 1910: 160]; see also Fallace [2011] and Pearce [2020: 283–7]).



dignified independence of more narrowly “practical” needs’, vindicating their earlier prediction that a critique of pragmatism ‘from an evolutionary standpoint will make of [it] a far less iconoclastic movement’ [*ibid.*: 124, 210].

Grace de Laguna’s evolutionary critique of pragmatism is interesting in its own right, demonstrating that Dewey—at least at this point in his career—had failed to attend to the functional diversity of concepts, neglecting in particular the organized conceptual systems of modern scientific thought. It also represented a philosophy that was simultaneously naturalized and historicized, foreshadowing later developments in the history and philosophy of science. Many of her specific claims anticipated those made by William C. Wimsatt and other naturalist philosophers of science in the 1980s: for example, that things become things in the first place because they ‘stand in such a diversity of relations to us’ and that earlier members of an evolving complex system are more stable [G. de Laguna 1909: 409; de Laguna and de Laguna 1910: 214–5; Wimsatt 1981; Schank and Wimsatt 1986]. More generally, her approach took the form of an evolutionary Kantianism, similar to that of Thomas Kuhn: even if there are categories that play something like an *a priori* role in our thought, ‘they are not final or unmodifiable’ but rather stand out as prior to experience at a given historical moment, when we ‘regard our present knowledge as a cross-section of an evolutionary process’ [G. de Laguna and T. de Laguna 1910: 215; cf. Kuhn 1990: 12].

Apart from a few reviews, the early work of Grace de Laguna received no attention from pragmatists and no response from Dewey. Although she and Dewey eventually became friends, with his daughter Jane even living with her while teaching physics at Bryn Mawr in the early 1930s, he never publicly addressed her critique of pragmatism—and this despite his responses to McGilvary and many other critics (John Dewey to Albert C. Barnes, 29 May 1939, in Hickman [2008: vol. 2, no. 04404]). Perhaps Dewey simply saw their positions as fundamentally compatible, since they shared basic philosophical commitments to functional psychology and the evolutionary method. Whatever the case, I hope to have shown that this shared basis makes de Laguna’s approach particularly interesting. There were countless criticisms of Dewey and James, but hers may have been the first evolutionary critique of pragmatism.

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