Disciplines have proliferated in the modern university as a natural and inevitable consequence of the inexorable extension—both macro- and microscopically, qualitatively and quantitatively—of the boundaries of knowledge: that is to say, as a consequence of the logic of inquiry and research themselves. What is this underlying logic of inquiry? Despite the unwieldy scope of such a question, it is curious to observe the ostensible unity that underwrites it, a unity provided by the central role of the Law of Non-contradiction (LNC) in the over twenty-five hundred years of its history. In his *Metaphysics*, Aristotle asserts the LNC to be so certain as to defy the need for rational defence. He nevertheless goes on to present a series of seven, at least according to some (Priest 2006a, 120), less-than-convincing arguments. The curious dogmatic reign of the LNC has overseen the period in which the university and the disciplines have arisen. And in addition, the relatively recent emergence of serious challenges to the LNC in the past century is likewise the era in which the spread and range of the disciplines has begun to be countered with a pervasive
interest in and concern for their interrelation, giving rise to competing models of inter-, multi-, and transdisciplinarity and the proliferation on all campuses of interdisciplinary programs and research institutes. Such an obvious large-scale similarity of historical pattern between the logic of inquiry and the structure of disciplines seems too obvious or too vague to be of significance, and yet I will explore in this essay some of the roots of this pattern in the intellectual tradition and the reasons why I think it worthy of closer investigation and deeper reflection.

I

For Aristotle, the first principle of all inquiry is what came to be called the Law of Non-contradiction—that most simple of propositions to the effect that no contradiction can be true (Beall 2004, 2–3). As an incontrovertible principle, the LNC extends in its scope from the genus philosophy, with its primary study of being qua being, through the species of the sciences, with their focus on specific beings and aspects of being. The LNC is, as Aristotle (1984) claims in Book Γ of the *Metaphysics*, “the most certain principle of all . . . that regarding which it is impossible to be mistaken.” He continues:

Such a principle must be both the best known . . . and non-hypothetical. For a principle which everyone must have who knows anything about being, is not a hypothesis; and that which everyone must know who knows anything, he must already have when he comes to a special study.

(1005b 11–17)

The LNC went largely unchallenged in the Western philosophical tradition for most of the ensuing two thousand years. It “formed a part of all articulated formal logics” and has “been a part of all logical theories” (Priest 2006b, 208), holding virtually unchallenged sway in Western thinking in all disciplines until the early twentieth century, with the exception of some strains of Neoplatonism and, closer to our own time, of Hegelianism. Even those like Jan Lukasiewicz, among the very few who have taken issue with his specific arguments in support of it, conclude that Aristotle was right to preach what he calls an “ultimate belief”
(1005b, 32) and what Lukasiewicz himself refers to as the “unassailable dogma” of the LNC (quoted in Beall 2004, 3). The canonical status of the LNC has imbued it with the force of a desire, in which dispassionate conviction and passionate investment are suspended in an unresolved tension. This internal residue of contradiction—an ambivalence reflected in the fact that the principle is referred to both affirmatively and negatively, as the Law of Contradiction and the Law of Non-contradiction—has given rise to the deep uneasiness in modernity regarding rationality, the Enlightenment, philosophical discourse, and their ambivalent relation to myth (Horkheimer and Adorno), ideology (Marx), the unconscious (Freud), and our prevailing understanding of language itself (Derrida).

Since, as Aristotle emphasizes, the absence of contradictions is the very condition of possibility for knowledge, anyone who attacks such a foundational provision threatens the underpinnings of rationality and knowability themselves. The most consistent opposing logic to that of the LNC, as Aristotle is particularly aware in relation to the Pre-Socratics and Plato, is the tradition of dialectical reasoning, with its legacy down to our own times of Neoplatonic and Hegelian attempts to find positive significance in contradictions, in their ability to push inquiry into speculative modes of exploration and reflection. Aristotle steered philosophy firmly onto the road of discursive and syllogistic sequentiality, setting it squarely against Pre-Socratic, Sophistic, and in some respects Platonic tolerances for contradiction. Picking up the above passage, Aristotle continues:

Evidently then such a principle [as the LNC] is the most certain of all; which principle this is, we proceed to say. It is, that the same attribute cannot at the same time belong and not belong to the same subject in the same respect; we must presuppose, in the face of dialectical objections, any further qualifications which might be added. This, then, is the most certain of all principles. . . . For it is impossible for anyone to believe the same thing to be and not to be, as some think Heraclitus says. . . . It is for this reason that all who are carrying out a demonstration refer it to this as an ultimate belief; for this is naturally the starting-point even for all the other axioms. (1005b, 17–33)
For both Plato and Aristotle, the Eleatic paradoxes like those of Zeno were continuous in their ambivalency and instability, with the promotion nearer to their own time of the Sophists’ pursuit of the political expediency of being able to argue with equal persuasiveness on either side of a question. Such deployment of dialectic in the service of the indeterminacy of truth, so readily manipulable in the pursuit of personal gain and political influence, was a major provocation for Plato and for the Socrates of the Platonic dialogues, in their concern for an articulation of a form of truth that would underwrite a stable law and governance in the city and a stable virtue and sense of value and felicity in the internal polity of the individual citizen. As Socrates reminds his interlocutors at a concluding moment in Book X of the Republic: “Yes, for the struggle to be good rather than bad is important, Glaucon, much more important than people think. Therefore we mustn’t be tempted by honor, money, rule, or even poetry into neglecting justice and the rest of virtue” (Plato 1997, 608b, 3–6). The occurrence of poetry as the ultimate term of such a list of ethical, political, and epistemological threats rings oddly in our twenty-first-century ears, so aesthetic has poetry become as a social or political force. Not so for Plato, for reasons that bear directly on the delineation of the LNC and therefore of philosophy as the discourse of truth and of science in the Western tradition. In its material role in the articulation of philosophy as primary discourse of reason, I make the very sweeping observation that the LNC has underwritten the manner in which the genus of rational discourse has distributed itself in the ever-increasing evolution of species of academic disciplines in this tradition; one could say that the LNC is a key material condition for the rational articulation of disciplines, insofar as they are rationally and not merely historically and empirically defended. I will attempt to give general observation a degree of specificity by locating the LNC in what Jean-Pierre Vernant (1988) refers to (in relation to Greek tragedy) as its historical moment, a moment which occurs first in the work of Plato, and specifically in the argument of the Republic, that most sustained and unified of Plato’s dialogues, one that a Plato scholar of our own time, Richard Kraut, has called with clear justification, “the centerpiece of Plato’s philosophy” (1992, 10).

The strictures against poetry that Plato has Socrates elicit in the Republic occupy the greater part of three of the ten books of the dialogue.
What I would like to illustrate here is that the sustained arguments against the ethical and political value of poetry in the Republic are centrally implicated in the articulation in the dialogue of the LNC. Likewise, the hierarchy of discourses which Aristotle articulates, for instance in the Poetics, placing poetry in a mediate relation between philosophy and history, follows from Aristotle’s “faith” in the LNC. Such a hierarchy of discourses has been the orthodoxy all through that historical phase in which the modern disciplines have articulated and organized into faculties. As Allan Bloom points out in his 1968 translation of the Republic, it is in a passage in Book IV in which we find what Bloom describes as “the earliest known explicit statement of the principle of contradiction—the premise of philosophy and the foundation of rational discourse” (1991, 457). The passage reads in the voice of Socrates:

It is obvious that the same thing will not be willing to do or to undergo opposites in the same part of itself, in relation to the same thing, at the same time. So, if we ever find this happening in the soul, we’ll know that we aren’t dealing with one thing but many. (436b)

Socrates arrives at this observation following the important discussion in Books II and III of the role of poetry and of Homer in particular in the youthful education of potential philosopher-rulers (on the role of poetry in Greek paideia see Havelock 1963), which is to say in the education of anyone who is able to achieve through philosophy the unity of an undivided mind informed by an awakening to the form and principle of “the good.” For Socrates such a formation in philosophy and toward ideal leadership necessarily entails a revision of the poetic-mythic tradition with respect to the inconsistent, inconstant, and amoral image that it conveys regarding the gods. As Socrates says to Adeimantus in Book II: “You and I . . . are not poets but we are founding a city. And it is appropriate for the founders to know the patterns on which poets must base their stories” (379a). The idea that philosophers, rather than the gods or muses, could or should dictate to poets the pattern for their portrayal of the gods shows how fundamental a departure from tradition occurs in Plato’s work (and how profoundly continuous and compatible are the Greek and later European Enlightenments). The pattern Socrates argues
for is the one articulated in the passage Bloom observes to be the first formal articulation of the LNC: namely, that “a god must always be represented as he is” and that a divine nature is always necessarily good and also unchangeably so, two principles that Socrates demonstrates, by quotations from Homer, Hesiod, and Aeschylus, to be consistently overthrown by the portraits given of the gods and their actions in the poetic tradition of Greece. Socrates goes on to quote a key passage from the final book of *The Iliad*, in which the narrator reflects on the sources of human destiny in the will of the gods: “There are two urns at the threshold of Zeus,/One filled with good fates, the other with bad ones” (379d). Socrates’ comment on the passage is unequivocal: “We won’t accept from anyone the foolish mistake Homer makes about the gods” (379c–d). In the context of Books II and III, not only are youth too impressionable to be exposed to such views of the arbitrariness and instability of an apparently passive, divinely ordained destiny, but by Book X Homer is presented as the figurehead of the paideutic tradition, a tradition that is best characterized, Socrates argues, as tragic in a quite primary and pervasive sense, and which as such is capable of carrying even the strongest, best, and most mature minds into a mimetic identification with states of feeling that are emotionally conflicted, contradictory, and inherently unable to sustain a hold on the unchanging qualities of truths that, in the argument of the *Republic*, find their ground and origin in the unitive Form of the Good. In the concluding argument for the exclusion of the poets from the ideal polis in Book X, Homer is cast as figurehead for the whole prior tradition of Greece, leading up to and making necessary the central argument of the *Republic* itself for the primacy of philosophical thought and understanding (Books VI and VII in particular). In Book X, Socrates admonishes his interlocutors thus:

> And so, Glaucon, when you happen to meet those who praise Homer and say he’s the poet who educated Greece, that it’s worth taking up his works in order to learn how to manage and educate people, and that one should arrange one’s whole life in accordance with his teachings, you should welcome these people and treat them as friends, since they’re as good as they’re capable of being, and you should agree that Homer is the most poetic of the tragedians and the first among them.
But you should know that hymns to the gods and eulogies to good people are the only poetry we can admit into our city. If you admit the pleasure-giving Muse, whether in lyric or epic poetry, pleasure and pain will be kings in your city instead of law or the thing everyone has always believed to be best, namely, reason. (606e–607a)

The kind of dialectical instability Aristotle attributes to Heraclitean principles of change and the coincidence of opposites, and to Pre-Socratic dialectical thinking generally, Plato finds to govern the whole of the poetic tradition, presided over by a Homer who is the “first” and “most poetic” of the tragedians. The generic distinctions between lyric, epic, and dramatic are set aside here by Socrates in favour of a notion of tragedy that characterizes the heroic and mythic phase of Greek culture that in some way culminates in the generation before Plato with the tragic poets. He finds there a contradictory and fundamentally unstable and destabilizing image of truth, divided within and against itself, and therefore unable to provide a pattern for understanding, for justice, or for virtue. As Vernant (1988) poses the question regarding the historical moment of Greek tragedy proper: “[Tragedy] is born, flourishes, and degenerates in Athens, and all within the space of a hundred years. Why? It is not enough to note that tragedy is an expression of a torn consciousness, an awareness of the contradictions that divide [human beings] against [themselves]. We must seek to discover on what levels, in Greece, these tragic oppositions lie, of what they are composed and in what conditions they emerged” (25). For Vernant, the root of the conflict is the gap between a dying mythic and heroic tradition and an emerging social and political commitment to the rule of a law. In relation to what Vernant calls “the historical moment of tragedy,” such a gap between dying and dawning traditions is clearly visible and yet “narrow enough for the conflict in values still to be a painful one.” “The tragic consciousness of responsibility,” he says, “appears when the human and divine levels are sufficiently distinct for them to be opposed while still appearing to be inseparable” (1988, 27). The historical moment of tragedy for Vernant, in being defined by this living stage of an emerging and still painful tension between divinely and humanly attributed interpretations of human agency and responsibility, is followed immediately by the Athens of Socrates, Plato, and Aristotle.
In the *Republic* Plato has Socrates conduct a sustained argument against a poetic tradition steeped in what he argues is a destabilizing agonistic conflict between sacred and secular world views, an argument which by the end of the dialogue issues in a still uneasy and nervous rejection of the poets and the long tradition for which they stand. The poets and their defenders, Socrates recommends, should be offered a chance to argue for why they should be allowed to remain in the city. “But,” says Socrates, “if it isn’t able to produce such a defense, then, whenever we listen to it, we’ll repeat the argument we have just now put forward like an incantation so as to preserve ourselves from slipping back into that childish passion for poetry that most people have” (607e). The clear insistence on the sole criterion of reasoned argumentation is mixed with a perhaps consciously ironic recognition that the poetic resources of incantation must still be invoked against a passionate, less than rational love for an outgrown tradition. Turning the incantatory resources of the religio-poetic tradition against it, Socrates affirms that lovers of reason “are well aware of the charm [poetry and all it stands for] exercises. But, be that as it may, to betray what one believes to be the truth is impious” (607c). This strong affirmation of belief in reason is echoed in Aristotle’s promotion of the LNC, and surfaces again, as already mentioned, in the uneasiness within modernity of the relation between reason and its others.

II

The characteristic difference between Plato and Aristotle in relation to the LNC is apparent in the use to which each puts it and in particular the role each gives to dialectic in relation to it. Plato’s view is economically configured in the analogy of the line that forms the concluding argument to Book VI of the *Republic*, preparing as it does for the allegory of the cave, which forms the opening passage of Book VII. Socrates resorts to the analogy as a means to visually sum up and configure his accumulating argument regarding the graded types of knowing, constituted by understanding, thought, belief, and opinion. Including the analogy between the Republic and the soul around which the whole of the dialogue is organized, the analogy of the line is one of four great allegorical figures in the *Republic*,

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along with the allegory of the cave and the Myth of Er. The role of images, similes, analogies, allegories, and myths in Plato’s thinking is a highly self-conscious and deliberate one; it occupies a central position in the Republic with regard to issues of mimesis and the relation between image and original, and is accented in a jocular exchange earlier in Book vi just prior to Socrates’ explication of the analogy of the line. To the question of how it is that, given the apparent general derision in which philosophers are held in contemporary Athens, Socrates can argue that the ideal city should be ruled by philosophers, Socrates responds: “The question you ask must be answered by means of an image or a simile” (487e). This receives an ironical reception from Adeimantus that has Socrates freely admit to how “greedy” he is for images (488a). In the light of the persistent argument in the dialogue against the poets as mimetic artists, such an admission has a very pointed resonance and indeed bears on the vital question of the mimetic, imagistic character of the dialogue form itself as a mode of philosophical writing and on Plato’s systematic use of and rationale for it.

My concern with the analogy of the line and of its relevance to the question of dialectic and contradiction in relation to the LNC will focus on the role images play in the key difference the analogy configures between rational thought and dialectical understanding (dianoia and noesis). In Book vii, Socrates speaks at some length about what he terms “summoners.” Summoners are the kind of contradictory perceptions that, like a stick in water, in appearing to possess two directly opposing qualities at the same time, summon thought to reach beyond sensible appearances to intelligible relations. In the analogy of the line, the line is divided first between sensible and intelligible forms of knowing, and then again into two forms of each: opinion and belief as sensible forms of knowing and thought and understanding as intelligible forms. At the intelligible level Socrates cites geometry as an example of the difference between thought and true understanding. Geometers, Socrates says, are interested only in the functionality of their axioms rather than their theoretical import. As he explains, geometers “make their claims for the sake of the square itself and the diagonal itself, not the diagonal they draw . . . they now in turn use images, in seeking to see those others themselves that one cannot see except by means of thought” (510d–e). That is to say, geometers exploit the
difference between the sensible and the intelligible without responding to the difference, even opposition, that persists between them; they ignore their dependence on the imperfect sensible image they draw in order to illustrate the ideal intelligible form about which they hypothesize.

Because they are not concerned with such a contradiction—it does not intrude on geometrical calculation—geometers do not find in it a summoning to that inquiry which Socrates terms dialectic and which draws the inquirer from hypothesis to the principles which geometers, and all those concerned with knowledge as distinct from opinion, must necessarily assume. Such a further level of inquiry forms, as it were, the truly intelligible relation to the intelligible realm, constituted, as Socrates speculates, by the principles that he here calls “forms,” which themselves find their principle in the Form of the Good. Without engaging the fraught question of the Platonic forms, our interest here is in the differentiation Socrates establishes between a use of hypotheses which ignores contradictions in favour of useful applications and one that finds in contradictions a summons to the further and more properly philosophical level of inquiry Socrates terms “dialectic.” It is a use of the notion of contradiction and dialectic quite unlike that which both Plato and Aristotle find so problematic and inadequate in the Eleatics, the Sophists, and the tragic poets. Socrates explains the difference between the two forms of the intelligible—the philosophical and the mathematical use of hypotheses—which are configured in the analogy of the line as the difference between understanding and thought: “Then also understand,” says Socrates, “that, by the other subsection of the intelligible, I mean that which reason itself grasps by the power of the dialectic. It does not consider these hypotheses [such as geometrical axioms] as first principles but truly as hypotheses—... as stepping stones to take off from, enabling it to reach the unhypothetical first principle of everything” (513b).

The analogy of the line plays a key role in the overall argument of the Republic regarding the nature of our relationship to the founding principle of the good and its expression in personal, social, and political life: that is to say, to the nature of justice. It follows directly on that central treatment in the dialogue of the sublime nature of the good as such, a passage indistinguishably ethical, epistemological, and ontological:
When [the soul] focuses on something illuminated by truth and what is, it understands, knows, and apparently possesses understanding, but when it focuses on what is mixed with obscurity, on what comes to be and passes away, it opines and is dimmed, changes its opinions this way and that, and seems bereft of understanding.

So that what gives truth to the things known and the power to know to the knower is the form of the good. And though it is the cause of knowledge and truth, it is also an object of knowledge. (508d–e)

The nature and character of knowledge, in other words, is derived from the nature of its source in that stable principle of principles, or rather principle beyond principles, which is the good: “Therefore, you should also say that not only do the objects of knowledge owe their own being known to the good, but their being is also due to it, although the good is not being, but superior to it in rank and power” (509b; emphasis mine). Thus, in the analogy of the line, hypotheses are not considered “as first principles” but rather “as stepping stones to reach the unhypothetical first principle of everything” (511b), which is the good. Hypotheses and their propositions are both necessary in the dialectical process and insufficient in themselves. As Francisco Gonzales puts it: “Even once we have gained access to a truth that transcends the hypotheses, we must nevertheless return to them in our discourse and in our further inquiry”’ (1998, 240). This contradiction at the heart of inquiry itself is, thus, for Plato motivated by that which is ultimately necessary to knowledge and which is by its very nature beyond the realm of determinate, propositional, subject-object, and subject-predicate logical and linguistic determinations. That is to say, it is beyond them but is reached by means of them and must be expressed within their constraining and, with respect to the demands of knowledge as distinct from belief, necessarily contradictory relations. It is thus for Plato reasonable and necessary that reason know and understand its relation to that from which it draws its rationale.

In Socrates’ distinction between thought and understanding, between hypothesis taken as authoritative principle and hypothesis taken as summons to further inquiry, we find two applications of the law of non-contradiction that are broadly Aristotelian and Platonic respectively. Aristotle’s insistence that the LNC is non-hypothetical follows
from apparent rational necessity, that it is unreasonable that it could be inconsistent with itself. Plato, on the other hand, has Socrates take very pointed interest in the opportunity presented by some kinds of contradiction to push inquiry further. Without making too much of this analogy between Plato’s and Aristotle’s attitudes to contradiction and hypothesis, I would suggest that the relatively unchallenged status of Aristotle’s promotion of the \( \text{LNC} \) into a long-time shibboleth of Western epistemology is reflected in our greater concern with proof and demonstration than with the dynamism of inquiry represented by the body of work of his teacher, Plato, the first philosopher of this tradition: the centuries of debate over proofs for the existence of God is certainly symptomatic of such aspiration to rational demonstration of what for Plato lies beyond the realm of beings susceptible to propositional definition. As Graham Priest views it:

It is fair to say that, at least since the Middle Ages, Aristotle’s views concerning contradiction have been orthodoxy. (This is so obvious, that it is hardly worth documenting.) They are taken for granted so much that, as far as I know, there is no sustained defence of the \( \text{LNC} \) in Western philosophy other than Aristotle’s. Why? I really don’t know. It is certainly not because of the rational persuasiveness of Aristotle’s arguments. I suspect (unhappily) that the view was accepted simply on the basis of the magisterial authority of Aristotle’s texts in the Middle Ages. In general, that authority disappeared long ago, of course. In logic it hung on till the twentieth century; most of it there has been swept out since then, but the views about contradiction have hung on doggedly. (2006a, 121)

The dialogical and dialectical expression of his thought is deliberately chosen by Plato for philosophical reasons, reasons that Gonzalez (1998) styles Plato’s philosophical mimesis (see his chapter 5 on the \textit{Republic}, entitled “Philosophical Imitation”). The preoccupation with literary and generally aesthetic questions in the \textit{Republic} has a very specific purpose for Plato in distinguishing what is the crucial, but decidedly subtle and—most importantly for my purposes here—contradictory relationship between literary and philosophical forms of mimesis: both draw on images to represent their meaning, but like geometry, poetry does not inquire into
those apparent contradictions that arise in its process of giving linguistic and imagistic expression to its representations: contradictions, to use an example of Plato’s, such as the flagrantly immoral behaviour of the gods by which we as human beings are supposed to measure and interpret our own existence. Instead of finding in such contradictions a summons to dialectical inquiry into the perplexity and ambiguity of our conception of the gods and of what we mean by morality, poetry, Plato argues, draws us into passionate identification with rather than a querying of the elements of such a relationship and of such moral imperatives. It is dialectical inquiry that we need, not passionate identification, argues Plato, dramatizing such inquiry in his peculiarly undramatic dialogues, texts that must be read and pondered and would offer little satisfaction were they performed on a stage.

III

If there is, as Vernant (1988) suggests, a historical moment of high Greek tragedy that flourished in Athens in the fifth century BCE, it might be pertinent to see in the currently pervasive concern with interdisciplinarity a historical moment of a certain exhaustion of autonomous disciplines, a moment marked by a globalizing and converging experience that makes it palpably necessary for us to think in more highly integrative terms regarding the aggravated challenges that a historic disciplinary atomism has generated. By similar extension, there could be argued to be, in the generation following tragedy, a historical moment of philosophy that is vividly instanced in the articulation of the LNC by both Plato and Aristotle. However, it could just as well be observed that, insofar as we are still and perhaps more explicitly than ever occupied with the question of what constitutes and characterizes rational inquiry as such, there is no historical moment, or rather that we are in the orbit of an overall condition that is history as such, a condition that is at least not without structure, one marked quite definitively by Plato, and that receives a determining, and arguably a narrowing, in Aristotle, a structure with whose entelechy we have been ourselves historically, rationally, and dialectically engaged. There is an inherent circularity in our relation to the logic of inquiry, our
inquiry into inquiry, which, as Heidegger observes, we must resist seeing as a *circulus vitiosus*:

But even in the opinion of the historian himself, it would admittedly be more ideal if the circle could be avoided and if there remained the hope of creating some time a historiology which would be as independent of the standpoint of the observer as our knowledge of Nature is supposed to be. *But if we see this circle as a vicious one and look out for ways of avoiding it, even if we just ‘sense’ it as an inevitable imperfection, then the act of understanding has been misunderstood from the ground up.* . . . What is decisive is not to get out of the circle but to come into it in the right way. (1962, 194–95)

With Plato, Heidegger argues that a “definitive ideal of knowledge” (*more geometrico*, as with the LNC) is “not the issue.” Rather: “Such an ideal is itself only a subspecies of the understanding—a subspecies which has strayed into the legitimate task of grasping the present-at-hand in its essential unintelligibility” (194). An intelligible unintelligibility that is not a vicious circle . . . this is the very non-ideal ideal that has to be kept in mind in thinking through the challenges of interdisciplinarity. An attempt to rationalize the interdisciplines with a traditional application of the principle of non-contradiction will founder and distort rather than engage the full complexity of the question of knowledge and its languages.

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