

**JUDGING DARWIN: UNDERSTANDING THE NEW
DISTRIBUTIVE MODEL OF EVOLUTION INSTRUCTION**

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INTRODUCTION

The debate surrounding the teaching of evolution in public school science classes is constantly evolving.¹ Indeed, the traditional context for that debate is no longer sufficient to explain its legal and political ramifications. For decades, arguments and judicial decisions about evolution instruction have focused solely on whether different approaches to teaching evolution violate the First Amendment's Establishment Clause.² The policy dimension of the debate has recently turned toward what this Article describes as a "distributive model" of evolution instruction. This distributive model requires a new analytical paradigm grounded not solely in the Establishment Clause, but in a wider range of principles more commonly associated with administrative law.

Religiosity is a defining characteristic of American society and culture.³ Not surprisingly, then, questions about how to educate our

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- 1 *See On the Media: Darwin's in the Details*, Interview by Bob Garfield with Eugenie Scott, Exec. Dir. of the Nat'l Ctr. for Sci. Educ., et. al. (National Public Radio broadcast Apr. 3, 2009) [hereinafter "*Darwin's in the Details*"] (statement of Eugenie C. Scott), available at <http://www.onthemedial.org/transcripts/2009/04/03/01?printable> (stating the position of evolution opponents is "evolving in response to the legal environment").
 - 2 U.S. CONST. amend I ("Congress shall make no law respecting an establishment of religion . . ."); *see, e.g.*, *Epperson v. Arkansas*, 393 U.S. 97, 109 (1968) (striking down Arkansas's statutory ban on teaching evolution under the Establishment Clause of the First Amendment); *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 763 (M.D. Pa. 2005) (invalidating use of evolution disclaimer under the Establishment Clause almost forty years after *Epperson*).
 - 3 *See, e.g.*, *Lynch v. Donnelly*, 465 U.S. 668, 674 (1984) ("There is an unbroken history of official acknowledgment by all three branches of government of the role of religion in American life from at least 1789."); *Zorach v. Clauson*, 343 U.S. 306, 313 (1952) ("We are a religious people whose institutions presuppose a Supreme Being."); *Bauchman v. W. High Sch.*, 132 F.3d 542, 554 (10th Cir. 1997) ("Courts have long recognized the historical, social and cultural significance of religion in our lives and in the world, generally. Courts also have recognized that 'a variety of motives and purposes are implicated' by government activity in a pluralistic society." (quoting *Lynch*, 465 U.S. at 680)); Daniel O. Conkle, *The Path of American Religious Liberty: From the Original Theology to Formal Neutrality and an Uncertain Future*, 75 IND. L.J. 1, 31 (2000) ("[R]eligion not only influences politics in the contemporary United States, but . . . religion [is incorporated into] politics to a degree that may be unparalleled in the American past."); Caroline Elizabeth Branch, Comment, *Unexcused Absence: Why Public Schools in Religiously Plural Society Must Save a Seat for Religion in the Curriculum*, 56 EMORY L.J. 1431, 1432 (2007) ("The United States is a society of myriad religious practices and perspectives Communities are expected to discuss . . . policies that may implicate religious principles Such conversations are a virtually unavoidable aspect of active political life in the United States."); *id.* at 1433 ("Religion infuses American public life"). According to the U.S. Census Bureau, at least 80% of American adults in 2008 describe themselves as belonging to a religious denomination other than "Atheist, agnostic, and nothing in particular." U.S. CENSUS BUREAU,

children frequently include discussions about whether and to what degree religious ideas or influences may interact with public education.⁴ The debate regarding how or whether to teach children about scientific explanations of human origins on Earth is perhaps the most well-recognized and impassioned of those discussions.⁵ It has become

THE 2010 STATISTICAL ABSTRACT 88 tbl.75 (2010), <http://www.census.gov/compendia/statab/2010edition.html> (follow “1-77” hyperlink).

- 4 A recent and highly controversial issue in this debate involved changes made to the state social studies and history curriculum by the Texas State Board of Education. The changes included removing Thomas Jefferson from a list of “influential political philosopher[s] in a world history class,” and an attempt “to water down the rationale for the separation of church and state in a high school government class [by] pointing out that the words were not in the Constitution and requiring that students compare and contrast the judicial language with the wording in the First Amendment.” April Castro, *Texas Board Adopts New Social Studies Curriculum*, ABC NEWS, May 24, 2010, <http://abcnews.go.com/US/wireStory?id=10706913>; see also, e.g., *Zelman v. Simmons-Harris*, 536 U.S. 639 (2002) (upholding school voucher program); *Good News Club v. Milford Cent. Sch.*, 533 U.S. 98 (2001) (concluding that permitting religious student groups to use school facilities does not violate the Establishment Clause); *Santa Fe Indep. Sch. Dist. v. Doe*, 530 U.S. 290 (2000) (striking student-initiated and student-led prayer at school).
- 5 Michael B. Berkman et al., *Evolution and Creationism in America’s Classrooms: A National Portrait*, 6 PLOS BIOLOGY 920, 921 (2008), <http://www.plosbiology.org/article/info%3Adoi%2F10.1371%2Fjournal.pbio.0060124> (“Within American politics generally, religious-based conflict is increasingly salient; even President Bush has expressed support for teaching ‘both sides’ of the evolution controversy. But opposition to evolution can be especially intense at the local level, where teachers live and work.” (citation omitted)); see Yudhijit Bhattacharjee, *Eugenie Scott Toils in Defense of Evolution*, 324 SCIENCE 1250, 1250 (2009) (referring to the “contentious battle over teaching evolution in U.S. public schools” over the last two decades); Glenn Branch, *Understanding Creationism After Kitzmiller*, 57 BIOSCIENCE 278, 284 (2007) (“[T]he teaching of evolution in the public schools remains under siege.”); Richard B. Katskee, *Why It Mattered to Dover That Intelligent Design Isn’t Science*, 5 FIRST AMENDMENT L. REV. 112, 158 (2006) (stating that “no one doubts that the [Kitzmiller] lawsuit constituted a major front in the culture war.”); Stephen A. Newman, *Evolution and the Holy Ghost of Scopes: Can Science Lose the Next Round?*, 8 RUTGERS J.L. & RELIGION 11, *5 (2007) (“Evolution . . . remains the subject of passionate opposition in America.”); *id.* at *6 (“The legal battle over the teaching of evolution has raged for over eighty years.”); Josh Rosenau, *Don’t Mess with Textbooks*, SEED MAG. (May 20, 2009), http://seedmagazine.com/content/article/dont_mess_with_textbooks/ (“In the last two years alone, 18 bills [similar to academic freedom bills] in 10 states have targeted the teaching of evolution.”). It should also be noted that some prominent legal scholars have advocated for a middle ground of sorts in the evolution instruction debate. Professor Wexler, among others, has argued persuasively for the position that the “controversy” over evolution should only be excluded from public school *science* classes, and that there may well be a useful place for introducing students to the debate in comparative religion or social studies classes. See Jay D. Wexler, *Darwin, Design, and Disestablishment: Teaching the Evolution Controversy in Public Schools*, 56 VAND. L. REV. 751, 787 (2003) (describing as an “improvement” a system where “history teachers could teach about the history of the opposition to evolution in American history classes; civics teachers could teach about the ongoing controversy over origins in those classes; philosophy teachers could teach about the epistemological claims of science and religion there”); see also Alan I. Leshner, Editorial, *Redefining Science*, 309 SCIENCE 221 (2005) (“[I]t is appropriate to teach about be-

so contentious that, for at least forty years, the federal courts have been the predominant source of lasting resolutions to issues of evolution instruction.⁶ Despite the passion on both sides of the controversy, the outcome has been overwhelmingly one-sided.⁷ Every challenged legislative or regulatory attempt to eliminate or curtail the teaching of evolution in public school science classes has been invalidated by the courts under the Establishment Clause.⁸ As a result, opponents of teaching evolution have been forced to reevaluate and transform their political strategy.⁹

Recent political activity in the area provides a clear example. Evolution opponents in at least twelve states have recently attempted,¹⁰ with notable success in Texas and Louisiana, to enact measures that

belief-based concepts like ID [Intelligent Design] in humanities courses, in classes comparing religious points of view, or in philosophy courses that contrast religious and scientific approaches to the world. However, what is taught in science class should be limited to science.”).

6 See *Edwards v. Aguillard*, 482 U.S. 578 (1987) (invalidating the Louisiana “balanced treatment” act); *Epperson*, 393 U.S. at 97 (striking down ban on teaching evolution); *Freiler v. Tangipahoa Parish Bd. of Educ.*, 185 F.3d 337 (5th Cir. 1999), *reh’g denied*, 201 F.3d 602 (5th Cir.), *cert. denied*, 530 U.S. 1251 (2000) (striking a Louisiana evolution disclaimer); *Daniel v. Waters*, 515 F.2d 485 (6th Cir. 1975) (striking an antievolutionist statute in Tennessee); *Selman v. Cobb Cnty. Sch. Dist.*, 390 F. Supp. 2d 1286 (N.D. Ga. 2005) (invalidating facially neutral evolution disclaimer); *Kitzmilller*, 400 F. Supp. 2d at 707 (striking a Dover Area School District (Pennsylvania) evolution disclaimer); *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255 (E.D. Ark. 1982) (invalidating Arkansas’ “balanced-treatment” statute); see also Nicholas A. Schuneman, *One Nation, Under . . . The Watchmaker?: Intelligent Design and the Establishment Clause*, 22 *BYU J. PUB. L.* 179, 179 (2007) (“For nearly eighty years, American courts have mediated the debate between creationists and evolutionists.”). That is not to say that political “solutions” have been entirely inconsequential, see, e.g., Press Release, Cobb County School District, Agreement Ends Textbook Sticker Case (Dec. 19, 2006), available at http://ncseweb.net/webfm_send/878 (explaining the County’s decision to settle after losing at trial but winning a remand and new trial on appeal as avoiding the “distraction and expense of starting all over”), but they have in many cases proven to be remarkably fickle and temporary. See, e.g., *Evolution Debate in Kansas* (12/4/06), AM. GEOLOGICAL INST. GOV’T AFFS. PROGRAM (Dec. 4, 2006), <http://www.agiweb.org/gap/evolution/KS.html> (noting that as of 2006, “[t]he science standards for public schools in Kansas have been rewritten five times in the past eight years”).

7 See cases cited *supra* note 6. Since *Epperson*, every measure to combat evolution instruction has been invalidated by the federal courts under the Establishment Clause.

8 See cases cited *supra* note 6.

9 See, e.g., Newman, *supra* note 5, at *29 (“After the Supreme Court’s ruling in *Epperson*, the term ‘creationism’ was replaced by the newly minted ‘creation science.’ When this renaming failed in *McLean* and in *Edwards*, the reference to ‘creation’ was jettisoned in favor of the next theoretical term, ‘intelligent design.’”); Schuneman, *supra* note 6, at 179 (describing the emergence of new political strategies in response to judicial decisions like *Epperson* and *Edwards* striking antievolutionist policies).

10 For a more detailed description of those unsuccessful state efforts, see discussion *infra* note 109.

significantly depart from previous practice.¹¹ While antievolutionist strategy toward evolution instruction has always been dynamic in the face of consistent rebukes by the federal courts,¹² the policy measures previously advanced by evolution opponents were widely applicable legislative or regulatory mandates as to how human origins must be taught in public school science classes.¹³ Although these measures employed different methods, from prohibiting evolution instruction outright to requiring that disclaimers be read to students about the veracity of evolutionary theory,¹⁴ they all provided clear instructions to educators. By contrast, recent enactments take what this Article contends is a dramatic turn from the preceding legislative or quasi-legislative prescriptions regarding evolution instruction toward a “distributive model” for addressing evolution questions, in which legislatures or regulators promulgate generalized statements that empower and encourage local educators to set evolution instruction policy through a series of individualized determinations about how evolution should be taught. This shift toward a distributive model supports a corresponding shift in the way evolution instruction policy measures are evaluated from a pure Establishment Clause analysis to one employing principles endemic to administrative law.

Changing perspective in this way does not require that traditional analyses under the Establishment Clause be cast aside or otherwise

11 See Louisiana Science Education Act, LA. REV. STAT. ANN. § 17:285.1 (2008); 19 TEX. ADMIN. CODE § 112.31–.41 (2009). The full text of Texas’ revised state science standards is published in Chapter 112 of Title 19 of the Texas Administrative Code.

12 See Katskee, *supra* note 5, at 119 (“That legal strategy [by antievolutionists in *Kitzmiller*] had its roots in a longstanding creationist program to exploit language in the Supreme Court’s decision in *Edwards v. Aguillard* to circumvent *Edwards*’ [stet] holding barring the teaching of biblical creationism”); Frank S. Ravitch, *Playing the Proof Game: Intelligent Design and the Law*, 113 PENN ST. L. REV. 841, 852 (2009) (explaining that after the Court’s decision in *Epperson*, “[a]s creationism begat creation science, creation science would soon beget a much more powerful offspring, Intelligent Design”); *id.* at 896 (describing the current state of evolution instruction policy as “primarily a response to cases decided under the Establishment Clause”); Kevin Trowel, Note, *Divided by Design: Kitzmiller v. Dover Area School District, Intelligent Design, and Civic Education*, 95 GEO. L.J. 855, 866 (2007) (“Creationism’s proponents have approached each legal defeat as an opportunity to reformulate the doctrine and to prepare it for future challenges.”).

13 As discussed *infra* Part II, evolution instruction policy has gone through a few discrete stages since its reemergence as a controversial issue in *Epperson*, but prior to the most recent policy movement, all of the policy measures introduced to challenge evolution instruction took the form of generally applicable legal mandates to educators and students. See, e.g., *Edwards v. Aguillard*, 482 U.S. 578 (1987) (“balanced treatment” act); *Epperson v. Arkansas*, 393 U.S. 97 (1968) (prohibition); *Selman v. Cobb Cnty. Sch. Dist.*, 390 F. Supp. 2d 1286 (N.D. Ga. 2005) (disclaimer).

14 See, e.g., *Epperson*, 393 U.S. at 102–03; *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707 (M.D. Pa. 2005).

discouraged, but instead allows for a more comprehensive understanding of the distributive model by opening it to consideration from an administrative policy making as well as a broader constitutional vantage point, all of which implicates interesting and potentially damning questions about the model's political and legal validity that are not revealed by a conventional Establishment Clause analysis. Part II of this Article briefly traces the history of the evolution debate. Part III introduces the distributive model as the present manifestation of evolution instruction policy. Part IV argues that the model is better understood by reference to administrative law principles, and Part V demonstrates, without attempting to reach a definitive conclusion, how this fresh vantage point raises new issues of, *inter alia*, the distributive model's political legitimacy.

II. THE EVOLUTION INSTRUCTION DEBATE

The history of the evolution instruction debate has at least two notable features. The development of evolution instruction policy has been dynamic and essentially linear, with new approaches to limiting the teaching of evolution emerging in the place of judicially invalidated policy measures.¹⁵ Only within the last decade have opponents of evolution instruction advanced a multi-faceted policy agenda.¹⁶ Another historical feature of the evolution instruction debate is the doctrinal path followed by policy makers, courts, and commentators in evaluating evolution education policy. This doctrinal path has been much more static and one-dimensional than its policy counterpart, as evolution instruction issues have been treated

¹⁵ See, e.g., Chet K. W. Pager, *The Establishment of Evolution: Public Courts and Public Classrooms*, 81 TUL. L. REV. 17, 25 (2006) (explaining that after the Court struck Arkansas' ban on teaching evolution, "[a]s a frontal assault on education was no longer constitutionally valid, creationists were forced to adopt increasingly nuanced strategies" in the evolution instruction debate); *id.* at 56–57 (pointing out that the Court's Establishment Clause jurisprudence "provides a framework for antievolutionists to refine their strategies in ways which meet their goals yet are in accordance with judicial doctrine").

¹⁶ See Deborah A. Reule, Note, *The New Face of Creationism: The Establishment Clause and the Latest Efforts to Suppress Evolution in Public Schools*, 54 VAND. L. REV. 2555, 2581–88 (2001) (identifying and examining in detail the three general means of combating evolution post-*Edwards*: removing evolution from state science curricula; including evolution disclaimers in science classes and texts; and teaching intelligent design); Schuneman, *supra* note 6, at 179 (describing the "third era" of evolution instruction policy as including "attempts to eliminate evolutionary theory from standardized tests, the use of disclaimers . . . and the presentation of scientific and philosophical 'evidence' against evolution").

exclusively as questions of religious establishment under the First Amendment.¹⁷

The debate over evolution instruction in public schools is a subset of the broader debate about the relationship between Darwinian evolution and religious faith, a debate as old as Darwinism itself.¹⁸ Although he was not the first evolutionist—the theory can be traced to the fifth century BCE and attributed to such prominent thinkers as Empedocles and Aristotle,¹⁹ as well as to Darwin’s contemporaries²⁰—Darwin’s support for the theory of natural selection²¹ made his evolu-

17 There is also support for the proposition that opponents of evolution instruction have historically been—and continue to be—religiously motivated in their criticisms of evolution and its inclusion in public school science curricula. See, e.g., *Selman v. Cobb Cnty. Sch. Dist.*, 390 F. Supp. 2d 1286, 1311 (N.D. Ga. 2005) (invalidating a facially-neutral evolution disclaimer on the grounds that “religiously-motivated individuals have specifically asked school boards to . . . adopt[] this specific language, . . . [and] the Cobb County School Board appears to have sided with these religiously-motivated individuals”); Bhattacharjee, *supra* note 5, at 1250 (describing recent “assaults on science standards” as “closet creationism being introduced through wording not obvious to those unfamiliar with the history of the controversy”); Gordy Slack, *The Evolution of Creationism*, SALON (Nov. 13, 2007), http://www.salon.com/news/feature/2007/11/13/intelligent_design/index.html [hereinafter Slack, *The Evolution of Creationism*] (arguing that religiously-motivated creation science “adapted” to unfavorable judicial rulings by “cutting God off its letterhead and calling itself ‘intelligent design’”). While this is an important issue in terms of evaluating evolution instruction policy under the Establishment Clause, see, e.g., *Edwards*, 482 U.S. at 585, 591 (defining the purpose prong of *Lemon* as prohibiting statutes that intend to advance religion and explaining that the statute at issue could not withstand constitutional scrutiny because its “preeminent purpose . . . was clearly to advance the religious viewpoint that a supernatural being created humankind”); *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1261, 1263 (E.D. Ark. 1982) (invalidating Arkansas’ balanced treatment statute based on the conclusion that it was part of a “religious crusade . . . motivated by opposition to the theory of evolution and [a] desire to see [creationism] taught in the public schools,” and because one of the statute’s sponsors was “motivated solely by his religious beliefs and his desire to see the Biblical version of creation taught in the public schools”), it is less significant for purposes of this discussion, which focuses on non-Establishment Clause contexts for considering questions about the teaching of evolution. It is sufficient for this Article to acknowledge that the doctrinal history of the evolution instruction debate has to date been singularly religious, regardless of the motivations of antievolutionist policy makers.

18 Joan DelFattore, *Speaking of Evolution: The Historical Context of Kitzmiller v. Dover Area School District*, 9 RUTGERS J.L. & RELIGION 1, 29 (2007) (“As soon as *On the Origin of Species* was published, a debate about its relationship to religious faith erupted . . .”).

19 See RANDY MOORE, *EVOLUTION IN THE COURTROOM: A REFERENCE GUIDE* 114, 151 (2002); GEORGE E. WEBB, *THE EVOLUTION CONTROVERSY IN AMERICA I* (1994).

20 See MOORE, *supra* note 19 (explaining that Darwin’s grandfather, Erasmus Darwin, and his contemporary, Alfred Wallace, made contributions to the study of evolution).

21 Natural selection, more colloquially referred to as “survival of the fittest,” is the theory that organisms “evolved” by adapting to their environments in ways that facilitated their survival. See CHARLES DARWIN, *ON THE ORIGIN OF SPECIES* (1859).

Darwin was the first to propose that the evolution of species was due to the relative advantage conveyed to certain phenotypic variations within a species—those better suited to survival and reproduction will reproduce more often, according to Dar-

tionary theory immediately and highly controversial as a challenge to deeply-held religious beliefs about human origins, in particular the biblical story of creation.²² From its Darwinist beginnings, therefore, the debate about how humans originated on Earth has been rooted in contentions about the relationship between religion and science.²³

The dispute about evolution instruction in public schools emerged from this broader debate and followed a similarly religious path. Following World War I, a fundamentalist Christian revival began in response to the perceived moral degradation of society.²⁴ One of the primary targets of this new fundamentalism was evolution,²⁵ which the movement's adherents considered "unscientific and dangerous" due principally to its inconsistency with creationism.²⁶ Fundamentalists' chosen forum in which to challenge evolutionary theory was in America's public schools,²⁷ where the issue for lawmakers and

win, thus leading to a predominance of the advantageous phenotypic variation in subsequent generations. In other words, optimal phenotypes emerged and gained dominance through a process of unguided survival of the fittest, otherwise known as "natural selection."

Schuneman, *supra* note 6, at 18,384 (citing NEIL A. CAMPBELL, *BIOLOGY* 427–28 (3d ed. 1993)).

22 DelFattore, *supra* note 18, at 37 (noting that "any comprehensive consideration of Victorian-era opposition to Darwinism must pay serious attention to the question of the relationship between religion and science"). Professor DelFattore also notes that the most strident conflict between religion and science surrounding evolution "is largely limited to fundamentalist Christians and confined to the undeniable statement that the theory of evolution does not bear out a literal reading of Genesis." *Id.*

23 *Id.* at 29 ("As soon as *On the Origin of Species* was published, a debate about its relationship to religious faith erupted . . .").

24 See EDWARD J. LARSON, *SUMMER FOR THE GODS: THE SCOPES TRIAL AND AMERICA'S CONTINUING DEBATE OVER SCIENCE AND RELIGION* 32–37 (1997); Pager, *supra* note 15, at 21 (describing the "religious revival in the 1920's" because "church leaders were concerned with the moral decline of America following the First World War").

25 See *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1258–59 (E.D. Ark. 1982) (explaining that "[t]he religious movement known as Fundamentalism began in nineteenth century America as part of evangelical Protestantism's response to social changes, new religious thought and Darwinism. . . . Following World War I . . . Fundamentalism focused on evolution as responsible for [a perceived decline in traditional morality]").

26 Joyce F. Francis, Comment, *Creationism v. Evolution: The Legal History and Tennessee's Role in that History*, 63 TENN. L. REV. 753, 755 (1996). Creationism is adherence to the account of human origins in the Book of Genesis. See N. Patrick Murray & Neil D. Buffaloe, *Creationism and Evolution: The Real Issues*, in *EVOLUTION VERSUS CREATIONISM: THE PUBLIC EDUCATION CONTROVERSY* 454 (J. Peter Zetterberg ed., 1983) ("[Creationism is defined as] the viewpoint that the literal Biblical account of creation is the correct explanation for the origin of the earth and its living forms.").

27 Derek H. Davis, *Kansas Versus Darwin: Examining the History and Future of the Creationism-Evolution Controversy in American Public Schools*, 9 KAN. J.L. & PUB. POL'Y 205, 212 (1999) (describing the conflict between Darwinism and the rise to prominence of Christian fundamentalism in the early twentieth century, and explaining that during that period crea-

judges remained how to resolve the tension between religious and scientific explanations of human origins.

A. *Religiously Explicit Policies*

During the 1920s, Oklahoma, Mississippi, Arkansas, Florida, Texas, and Tennessee all passed laws designed to prevent the teaching of evolution in public schools.²⁸ Evolutionists brought the first—and perhaps still most well-known—legal challenge on the subject to the Tennessee Supreme Court in 1927 in the famous Scopes Monkey Trial.²⁹ The Tennessee Anti-Evolution Act prohibited the teaching of “any theory that denies the story of the divine creation of man as taught in the Bible”³⁰ At trial, the court effectively precluded either party from presenting scientific evidence, making it “inevitable that most of the case would deal with the clash between science and religion as viewed by fundamentalist creationists.”³¹ Despite the fact that the United States Supreme Court had yet to incorporate the First Amendment against the states,³² defendant John T. Scopes challenged (unsuccessfully) the constitutionality of the Act on religious grounds under the state constitution.³³ Although the trial constituted a legal victory for antievolutionists, it was a loss for the movement in the court of public opinion,³⁴ and the issue was largely relegated to local attempts to discourage the teaching of evolution after 1928.³⁵

tionists “declared war on the evolutionists, a war whose biggest battlefield would become the nation’s public schools”).

²⁸ Pager, *supra* note 15, at 22.

²⁹ *See Scopes v. State*, 278 S.W. 57 (Tenn. 1925), *rev’d on other grounds*, 289 S.W. 363 (Tenn. 1927).

³⁰ *Scopes*, 289 S.W. at 363–64 n.1.

³¹ DelFattore, *supra* note 18, at 44.

³² The Supreme Court first incorporated the First Amendment into the Fourteenth Amendment in *Cantwell v. Connecticut*, 310 U.S. 296 (1940):

The fundamental concept of liberty embodied in [the Fourteenth] Amendment embraces the liberties guaranteed by the First Amendment. The First Amendment declares that Congress shall make no law respecting an establishment of religion or prohibiting the free exercise thereof. The Fourteenth Amendment has rendered the legislatures of the states as incompetent as Congress to enact such laws.

Id. at 303.

³³ *See Scopes v. State*, 278 S.W. 57 (Tenn. 1925), *rev’d on other grounds*, 289 S.W. 363 (Tenn. 1927); DelFattore, *supra* note 18, at 46–47.

³⁴ *See Pager*, *supra* note 15, at 23 (explaining that after the decision in *Scopes*, “Tennessee was broadly perceived as laughably backward, antievolutionist sentiment subsided, and few states attempted similar statutes”).

³⁵ *See Reule*, *supra* note 16, at 2570 (citing DOROTHY NELKIN, *THE CREATION CONTROVERSY: SCIENCE OR SCRIPTURE IN THE SCHOOLS* 33 (1982)). The statute that would give rise to the next great legal battle over evolution instruction was already on the books in Arkan-

Forty years later, the controversy resurfaced in *Epperson v. Arkansas*³⁶ with a challenge to an Arkansas statute prohibiting teaching that humankind “ascended or descended from a lower order of animals.”³⁷ The trial court, like its counterpart in *Scopes*, refused to permit scientific evidence in support of evolution, instead focusing on the damage that teaching evolution would do to religious values in the community.³⁸ The Supreme Court struck down the statute under the Establishment Clause—which after *Scopes* had been incorporated against the states³⁹—because it prohibited teaching evolution “for the sole reason that it is deemed to conflict with a . . . particular interpretation of the Book of Genesis by a particular religious group.”⁴⁰ *Epperson* altered antievolutionists’ policy focus from outright bans on teaching evolution to the concept of “scientific creationism,” the view that the biblical creation account can be supported scientifically.⁴¹

The initial vehicle for promoting scientific creationism was balanced treatment legislation, which required that scientific creationism and evolution be taught side-by-side.⁴² Arkansas adopted a balanced treatment statute in 1981⁴³ which was based on the model *Balanced Treatment for Creation-Science and Evolution-Science Act* by creationist Paul Ellwanger.⁴⁴ Supporters of evolution instruction promptly

sas. See *Epperson v. Arkansas*, 393 U.S. 97, 109 n.17 (1968) (noting that “Arkansas’ law was adopted by popular initiative in 1928, three years after Tennessee’s law was enacted and one year after the Tennessee Supreme Court’s decision in the *Scopes* case”).

36 393 U.S. at 97.

37 *Id.* at 99.

38 See MOORE, *supra* note 19, at 52.

39 See *Cantwell v. Connecticut*, 310 U.S. 296 (1940) (applying the First Amendment against the states through its incorporation into the Fourteenth Amendment).

40 *Epperson*, 393 U.S. at 103.

41 See *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255, 1259 (E.D. Ark. 1982) (“In the 1960’s and early 1970’s, several Fundamentalist organizations were formed to promote the idea that the Book of Genesis was supported by scientific data. The terms ‘creation science’ and ‘scientific creationism’ have been adopted by these Fundamentalists as descriptive of their study of creation and the origins of man.”); Chris Mooney, *The Dover Monkey Trial*, SEED MAG., (Oct. 1, 2005), http://seedmagazine.com/content/article/the_dover_monkey_trial/ (“In the wake of [*Epperson*], the anti-evolutionist legal strategy advocated ‘equal time’ legislation . . .”).

42 See *McLean*, 529 F. Supp. at 1261–63 (noting that the balanced treatment legislation at issue was prepared by the founder of a Fundamentalist organization and was designed to avoid the constitutional trappings of prior evolution statutes); Reule, *supra* note 16, at 2573 n.124 (explaining that the balanced treatment legislation at issue in *McLean* was “specifically designed to avoid conflict with the First Amendment” in light of *Epperson*).

43 See *Balanced Treatment for Creation-Science and Evolution Science Act*, ARK. STAT. ANN. § 80-1663 (1981 Supp.).

44 See CREATIONISM, SCIENCE AND THE LAW: THE ARKANSAS CASE 1 (Marshall C. LaFollette ed., 1983).

challenged the Act as unconstitutional in *McLean v. Arkansas*.⁴⁵ Although the district court in *McLean* permitted both sides to present expert scientific testimony at trial, the statute was invalidated on familiar Establishment Clause grounds,⁴⁶ namely because the creation science information and arguments presented to the court “simply omit Biblical references” without changing the Act’s religious “content and message.”⁴⁷

Five years later, the Supreme Court invalidated a Louisiana statute on similar grounds.⁴⁸ After *McLean*, Louisiana passed a revised balanced treatment statute that defined creation science as “scientific evidences for creation and inferences from those scientific evidences.”⁴⁹ After hearing a wide range of arguments from both sides, including arguments based on the scientific validity of creation science and evolution, the Court held that the statute violated the Establishment Clause because its actual purpose was to “change the science curriculum . . . to provide persuasive advantage to a particular religious doctrine that rejects . . . evolution in its entirety.”⁵⁰ Unable to rely on balanced treatment legislation, evolution opponents were again forced to recreate their approach to combating evolution instruction in public schools.⁵¹

The response was a form of evolution disclaimer, a statement that is read to students or placed in science textbooks by school officials and that questions the validity of evolutionary theory.⁵² A Louisiana

45 529 F. Supp. at 1255.

46 *Id.*

47 *Id.* at 1271.

48 *Edwards v. Aguillard*, 482 U.S. 578, 586 (1987) (invalidating the Louisiana Balanced Treatment for Creation-Science and Evolution-Science in Public School Instruction Act, LA. REV. STAT. ANN. § 17:286.1–.7).

49 *Aguillard v. Treen*, 634 F. Supp. 426, 429 (E.D. La. 1985). The case was renamed when Edwin Edwards succeeded David Treen as governor of Louisiana.

50 *Edwards*, 482 U.S. at 592.

51 *See* Mooney, *supra* note 41, at 31 (“With their ‘creation science’ strategies struck down by the Supreme Court, anti-evolutionists almost immediately launched another tactic: they morphed into defenders of ‘intelligent design.’”).

52 Professor Wright describes evolution textbook disclaimers by explaining that:

As the caselaw has developed, there is no absolute uniformity as to the language of evolution textbook disclaimers. However, a typical such disclaimer may read as follows: ‘This textbook contains material on evolution. Evolution is a theory, not a fact, regarding the origin of living things. This material should be approached with an open mind, studied carefully, and critically considered.’”

R. George Wright, *Your Mileage May Vary: A General Theory of Legal Disclaimers*, 7 PIERCE L. REV. 85, 103–04 (2008). The disclaimer in *Freiler v. Tangipahoa Parish Board of Education* stated:

It is hereby recognized by the Tangipahoa Board of Education, that the lesson to be presented, regarding the origin of life and matter, is known as the Scientific Theory of Evolution and should be presented to inform students of the scientific

school board enacted a requirement that teachers read a statement to science students before they begin studying evolution. The statement explained that the teaching of evolution was not intended to discourage their belief in the “Biblical version of Creation” or any other concept of human origins and encouraged students to form their own opinions or adhere to those of their parents.⁵³ The district court in *Freiler v. Tangipahoa Parish Board of Education* invalidated the disclaimer⁵⁴ and the circuit court affirmed, ruling that the statement conferred an unconstitutional benefit on a religious doctrine under the Establishment Clause.⁵⁵ The Supreme Court declined to grant certiorari, but did so over Justice Scalia’s dissent on behalf of three members of the Court,⁵⁶ perhaps signaling to evolution opponents that less religiously explicit critiques of evolutionary theory would be more likely to survive an Establishment Clause challenge.⁵⁷

B. *Facially Neutral Challenges*

Regardless of whether it was, in fact, a reaction to Justice Scalia’s dissent, *Freiler* represents an era in the evolution instruction debate when opponents of evolution instruction shifted from religiously explicit attempts to discourage or supplement evolution instruction to facially neutral ones.⁵⁸ This shift can be seen in the emergence of the

concept and not intended to influence or dissuade the Biblical version of Creation or any other concept.

It is further recognized by the Board of Education that it is the basic right and privilege of each student to form his/her own opinion or maintain beliefs taught by parents on this very important matter of the origin of life and matter. Students are urged to exercise critical thinking and gather all information possible and closely examine each alternative toward forming an opinion.

975 F. Supp. 819, 821 (E.D. La. 1997).

⁵³ *See id.* at 821 (evaluating a disclaimer to be read to public school science students immediately before a unit of study in which “the scientific theory of evolution is to be presented”).

⁵⁴ *Id.*

⁵⁵ *Freiler v. Tangipahoa Parish Bd. of Educ.*, 185 F.3d 337 (5th Cir. 1999), *reh’g denied*, 201 F.3d 602 (5th Cir.), *cert. denied*, 530 U.S. 1251 (2000).

⁵⁶ *See Tangipahoa Parish Bd. of Educ. v. Freiler*, 530 U.S. 1251 (2000) (Scalia, J., dissenting) (denying certiorari).

⁵⁷ *See id.* at 1253 (arguing that the evolution disclaimer satisfied the effects prong of the *Lemon* test, despite its explicit use of creationism as an “illustrative *example*”) (emphasis in original).

⁵⁸ *Compare Freiler*, 975 F. Supp. at 821 (considering a disclaimer explaining to students that the teaching of evolution was not intended to discourage their belief in the “Biblical version of Creation”), with *Selman v. Cobb Cnty. Sch. Dist.*, 390 F. Supp. 2d 1286, 1292 (N.D. Ga. 2005) (evaluating a requirement that a sticker be placed in high school biology textbooks stating that evolution “is a theory, not a fact,” and “should be approached with an open mind, studied carefully, and critically considered”). This shift is also evident in the public statements made by prominent evolution opponents like the Discovery Institute

“Teach the Controversy” movement at the turn of the century.⁵⁹ Proponents of this new approach advocated for revised evolution disclaimers in light of *Freiler*, teaching intelligent design as an alternative theory to evolution,⁶⁰ and revising state science standards to deemphasize or otherwise discourage evolution instruction.⁶¹ These approaches are notable because they do not include any mention of a particular religion or religious doctrine. They challenge evolution instruction by either discouraging student exposure to or confidence in the veracity of Darwin’s theory, or by advancing an “alternative” explanation of human origins that claims to be scientific rather than religious.⁶²

After *Freiler*, two facially neutral evolution disclaimers were enacted in two separate states, and both were challenged in federal court. In 2004, a school district in Cobb County, Georgia required that a sticker be placed in high school biology textbooks stating that evolution “is a theory, not a fact,” and “should be approached with an

Center for Science and Culture. In 1999, an internal document outlining the Center’s new Wedge Strategy for challenging evolution instruction described the Center’s mission as “[seeking] to reverse the stifling dominance of the materialist worldview [including evolution theory], and to replace it with a science consonant with Christian and theistic convictions.” DISCOVERY INST. CTR. FOR THE RENEWAL OF SCI. & CULTURE, *The Wedge Strategy*, ANTIEVOLUTION.ORG, <http://www.antievolution.org/features/wedge.html> (last visited Oct. 9, 2010) [hereinafter DISCOVERY INSTITUTE, *Wedge Strategy*]. In 2009, the same Center for Science and Culture described itself as a program designed to “support[] research by scientists and other scholars” into alternatives to Darwinian evolution and to “encourage[] schools to improve science education” by teaching students about the “scientific weaknesses” of evolutionary theory. See DISCOVERY INST. CTR. SCI. & CULTURE, <http://www.discovery.org/csc/aboutCSC.php> (last visited Oct. 9, 2010).

⁵⁹ Eugenie C. Scott, *What’s Wrong with the “Teach the Controversy” Slogan?*, 42 MCGILL J. EDUC. 307, 312 (2007) (“During the early 2000s the Discovery Institute refocused its efforts from promoting [intelligent design] to concentrating on the ‘weaknesses of evolution.’ . . . This was the origin of the ‘Teach the Controversy’ slogan . . .”); Slack, *The Evolution of Creationism*, *supra* note 17, at 1–2 (“Teach the controversy is the new mantra of the [intelligent design] movement.”); *Darwin’s in the Details*, *supra* note 1 (statement of Casey Luskin) (supporting “teaching evolution in [a] manner that allows students to ask hard questions and really investigate and analyze the issues [relating to the] . . . scientific controversy over evolution”).

⁶⁰ See *Top Questions*, DISCOVERY INST. CTR. SCI. & CULTURE, <http://www.discovery.org/csc/topQuestions.php> (last visited Oct. 9, 2010) (defining the theory of intelligent design as holding “that certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection”).

⁶¹ See Reule, *supra* note 16, at 2581–88 (identifying and examining in detail the three general means of combating evolution post-*Edwards*: removing evolution from state science curricula; evolution disclaimers in science classes and texts; and teaching intelligent design).

⁶² This is different from balanced treatment statutes, which attempted to support an overtly religious position on scientific grounds.

open mind, studied carefully, and critically considered.”⁶³ Despite the disclaimer’s silence as to any religious doctrine or language, the district court in *Selman v. Cobb County School District*⁶⁴ invalidated the disclaimer under the Establishment Clause because it conveyed the message that those who “oppose evolution for religious reasons . . . are favored members of the political community.”⁶⁵ Shortly after the *Selman* decision, a district court in Pennsylvania considered an Establishment Clause challenge to a requirement that school officials read a statement to ninth grade science students that evolution is “not a fact,” and that “[g]aps in the [t]heory exist for which there is no evidence.”⁶⁶ The statement went on to mention intelligent design as an alternative to evolution and referred students to its reference book for more information on the topic.⁶⁷ The district court struck the disclaimer as a violation of the Establishment Clause, primarily on the grounds that a reasonable observer would conclude that the disclaimer—including its reference to the theory of intelligent design—was intended to promote a religious agenda.⁶⁸ Although the disclaimers

63 *Selman v. Cobb Cnty. Sch. Dist.*, 390 F. Supp. 2d 1286, 1292 (N.D. Ga. 2005), *vacated and remanded by* 449 F.3d 1320, 1338 (2006) (requiring additional facts to be developed on the record, but explicitly stating that “we do not intend to make any implicit rulings on any of the legal issues that arise from the facts once they are found on remand. We intend no holding on any of the legal premises that may have shaped the district court’s conclusions on the three *Lemon* prongs”).

64 *Selman*, 390 F. Supp. 2d at 1286.

65 *Id.* at 1306.

66 *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 708 (M.D. Pa. 2005).

67 *See id.* at 708–09 (explaining that the intelligent design “reference book, *Of Pandas and People*, is available for students” to see if they would like to explore this view). Intelligent design is a theory of human origins based on the idea that human development was guided by an “intelligent designer” rather than Darwinian natural selection. *See also Top Questions*, *supra* note 60 (“The theory of intelligent design holds that certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection.”). It is not overtly religious in the sense that it does not expressly invoke any existing religious doctrine or authority to support its assertions.

68 *Kitzmiller*, 400 F. Supp. 2d at 728 (“An objective student is also presumed to know that the Dover School Board advocated for the . . . disclaimer in expressly religious terms . . . and that the Board adopted the [intelligent design] Policy in furtherance of an expressly religious agenda.”); *see also id.* (“[T]he objective student is presumed to know that encouraging the teaching of evolution as a theory rather than as a fact is one of the latest strategies to dilute evolution instruction employed by anti-evolutionists with religious motivations.” (citing *Selman*, 390 F. Supp. 2d at 1308)). The *Kitzmiller* court also concluded that a reasonable observer would understand that intelligent design is “an interesting theological argument, but that it is not science,” and that its reference book posits that God is the “master intellect” behind human existence. *Id.* at 718, 745–46. *But see* Arnold H. Loewy, *The Wisdom and Constitutionality of Teaching Intelligent Design in Public Schools*, 5 FIRST AMEND. L. REV. 82, 88 (2006) (arguing that “teaching intelligent design in public schools is constitutional (outside of the unusual context of the *Kitzmiller* situation)”).

at issue in *Selman* and *Kitzmiller* were silent with respect to creationism or any other overtly religious explanation of human origins, both were challenged and adjudged solely under the Establishment Clause, confirming the one-dimensional nature of evolution instruction's doctrinal history; even when the debate avoids religious language, evolution instruction is treated as a religious issue.

The federal courts' negative treatment of evolution disclaimers and intelligent design⁶⁹ has left the third method of "teaching the controversy," described generally as the move to revise state science standards,⁷⁰ as the most legally and politically promising. Historically, efforts at revising science curricula have stopped short of explicitly prohibiting evolution instruction⁷¹ in favor of more subtle,⁷² less con-

69 In addition to its negative treatment in the courts, there is powerful political evidence supporting the conclusion that intelligent design is not likely to play a significant role in antievolutionist strategy going forward. See, e.g., PAUL R. GROSS ET AL., THOMAS B. FORDHAM INST., THE STATE OF STATE SCIENCE STANDARDS 15 (2005), available at <http://www.edexcellence.net/institute/publication/publication.cfm?id=352> (citing disclaimers, rather than intelligent design, as the primary means of response by antievolutionists seeking to discredit evolution); Claudia Wallis, *The Evolution Wars*, TIME, Aug. 15, 2005, at 27, 30 (explaining that creationists are focusing on "attempting to get criticism of Darwinian evolution in the science standards, not intelligent design" (internal quotation marks omitted)). There has yet to be a law enacted that requires intelligent design instruction in public school science classes, and antievolutionists denounced that prospect in favor of evolution disclaimers. See Mooney, *supra* note 41, at 32 (discussing how advocates of intelligent design are not pushing for intelligent design instruction, but instead are seeking to require that public schools "teach the controversy"); Marilyn Rauber, *Creationists Try to Edge Around Ban*, RICHMOND TIMES-DISPATCH, Dec. 5, 2004 (explaining that "the tactic that most worries supporters of evolution is the use of anti-evolution disclaimers," rather than the introduction of intelligent design).

This is not to say, however, that intelligent design does not continue to capture the interest of participants in the evolution instruction debate. See DISCOVERY INST. CTR. SCI. & CULTURE, *supra* note 58 (stating as one of the four goals of the program to "support[] research by scientists and other scholars developing the scientific theory known as intelligent design"); Bhattacharjee, *supra* note 5, at 1250 (explaining that the battle over evolution still includes intelligent design). In the last three years alone, more than thirty law review articles have been published with the phrase "intelligent design" in the title. For purposes of this discussion, however, it is sufficient to note that, as a matter of political strategy, the promotion of intelligent design theory appears to have fallen out of favor with antievolutionists.

70 See Reule, *supra* note 16, at 2581–88 (identifying and examining in detail the three general means of combating evolution post-*Edwards*).

71 Although Kansas, Mississippi, West Virginia, and Tennessee have at one time come close to prohibiting evolution instruction in their state science standards, see Lawrence S. Lerner, *Teaching Evolution State by State*, FREETHOUGHT TODAY, Jan.–Feb. 2001, http://www.ffrf.org/fttoday/2001/jan_feb01/lerner.html (explaining that, as of February 2001, four states (Kansas, Mississippi, Tennessee, and West Virginia) had state science standards that "ignore evolution completely"), there are currently no states that omit all treatment of evolutionary theory from their state science curricula. As of December, 2005, however, five states—Florida, Kentucky, Mississippi, Oklahoma, and South Dako-

stitutionally-suspect measures. The policy-level battle over state science standards has come to parallel the development of evolution disclaimers; revised science standards target the veracity of evolutionary theory while remaining facially neutral with regard to religion.

For instance, Texas, the nation's largest purchaser of science textbooks and thus a highly influential force in the direction of public science education nationally,⁷³ until recently included language in its science standards requiring that educators introduce students to the "strengths and weaknesses" of scientific theories, including evolution.⁷⁴ This was called the "strengths and weaknesses strategy" by its

ta—had standards that used the term "evolution" either sparingly or not at all, instead choosing phrases such as "change over time," and as many as thirteen States had adopted a treatment of evolution described as "useless, disguised, or absent." GROSS ET AL., *supra* note 69, at 15, 34, 40, 46–47, 57, 61.

⁷² It may appear at first glance that the distinction between measures like evolution disclaimers and teaching intelligent design on the one hand and revised state science standards on the other is nominal at best, and that evolution disclaimers and intelligent design instruction could themselves be achieved through a shift in state science standards. While on a macro level this is true—a revision of state science standards could be used to prohibit evolution instruction altogether, let alone require the teaching of intelligent design—for purposes of this discussion, the revision of state science standards is meant in contrast to what would traditionally be legislative measures, such as a requirement that disclaimers be used or intelligent design be taught in science classes. Put another way, the process of revising state science standards is used here to refer to a more indirect approach to influencing evolution instruction by changing the guidelines and overarching priorities of the state science curriculum, rather than mandating specific conduct. Although the same political actors may participate in, for example, enacting an evolution disclaimer and setting learning goals for science students, the former is considered herein to be something beyond a mere revision of state science standards, while the latter is not. Professor Bowman described this distinction as follows:

Standards do not establish a statewide curriculum in that they do not dictate which textbooks must be used or which assignments or methods of in-class assessment must be employed, yet they do establish a substantive instructional framework. The content of a state's standards explicitly is intended to influence the instruction students receive, and to do so at a low cost, compared to many other methods of educational reform.

Kristi L. Bowman, *An Empirical Study of Evolution, Creationism, and Intelligent Design Instruction in Public Schools*, 36 J.L. & EDUC. 301, 310–11 (2007) (citing GROSS ET AL., *supra* note 69), available at <http://www.edexcellence.net/institute/publication/publication.cfm?id=352>.

⁷³ See April Castro, *Texas Ed Board Approves Science Standards*, HOUSTON CHRON., Mar. 27, 2009, <http://www.chron.com/disp/story.mpl/ap/tx/6346723.html>; *Darwin's in the Details*, *supra* note 1 (statement of Bob Garfield) (point out that "since Texas buys more . . . textbooks than any other state, it influences [the content of] books everywhere").

⁷⁴ See Castro, *supra* note 73 (describing the omission in Texas' new science standards of the "20-year-old requirement that both 'strengths and weaknesses' of all scientific theories be taught" in Texas); *Texas Improves on Strengths and Weaknesses Language in Science Standards on Teaching Evolution*, DISCOVERY INST. CTR. SCI. & CULTURE (Mar. 29, 2009), <http://www.discovery.org/a/9851>.

critics,⁷⁵ who claim that despite its facial neutrality, it is in fact motivated by a desire to introduce creationism into the classroom.⁷⁶ Facially-neutral state science standards like the “strengths and weaknesses strategy” fit nicely into the overall historical narrative of the evolution instruction debate. The use of multiple approaches, such as evolution disclaimers, intelligent design instruction, and revised standards, is consistent with the dynamic history of evolution education policy, and the continued focus by advocates and commentators on the Establishment Clause as the sole legal context for evaluating new evolution instruction policies is a continuation of the debate’s monolithic doctrinal pedigree.⁷⁷ Although the “strengths and weak-

⁷⁵ Gordy Slack, *Texas on Evolution: Needs Further Study*, SALON (Mar. 28, 2009), http://www.salon.com/env/feature/2009/03/28/texas_evolution_case/index.html [hereinafter Slack, *Texas on Evolution*] (stating that after the court in *Kitzmiller* indicated that intelligent design was a religious, rather than scientific, concept, and thus unconstitutional as a subject to be taught in public schools, “advocates of teaching neo-creationism have been forced to seek other ways into public science classrooms. Enter the ‘strengths and weaknesses’ strategy, crafted by the Seattle-based, pro-intelligent-design think tank [sic], Discovery Institute”).

⁷⁶ See Castro, *supra* note 73 (“The words strengths and weaknesses have become ‘code for creationism and (the similar theory of) intelligent design,’ said [Texas State Board of Education] member Barbara Cargill.”); Slack, *Texas on Evolution*, *supra* note 75 (quoting “Eugenie Scott, Director of the National Center for Science Education” as saying that the alternative to the creationist strengths and weaknesses strategy was “to continue amending the standards to achieve through the backdoor what they couldn’t achieve up front”) (internal quotation marks omitted).

⁷⁷ The legal scholarship on evolution instruction has focused almost exclusively on the constitutionality of teaching evolution under the Establishment Clause. See Bowman, *supra* note 72, at 317 (“[T]he constitutional tests that are most often considered to be the focus of a legal analysis of creationism or intelligent design instruction . . . all ask whether the government is supporting religion; not surprisingly, legal scholarship, too, has focused on the same question.”); David Crump, *Natural Selection, Irreducible Complexity, and the Bacterial Flagellum: A Contrarian Approach to the Intelligent Design Debate*, 36 PEPP. L. REV. 1, 10 (2008) (describing the Establishment Clause as the “principal basis of legal objections to the consideration of irreducible complexity theory in public schools”); see also David R. Bauer, Note, *Resolving the Controversy over “Teaching the Controversy”: The Constitutionality of Teaching Intelligent Design in Public Schools*, 75 FORDHAM L. REV. 1019, 1040–43, 1046–50 (2006) (reviewing the evolution instruction literature and revealing its focus on the Establishment Clause). This remained true even after the development and adoption in Louisiana and Texas of the “distributive model,” the most recent policy measure advanced by evolution opponents. See discussion *infra* Part III (describing the distributive model); see also Jana R. McCreary, *This is the Trap the Courts Built: Dealing with the Entanglement of Religion and the Origin of Life in American Public Schools*, 37 SW. U. L. REV. 1, 3–4 (2008) (arguing that allowing the teaching of evolution in schools at the exclusion of other doctrines violates the Establishment Clause); Barry P. McDonald, *Getting Beyond Religion as Science: “Unstifling” Worldview Formation in American Public Education*, 66 WASH. & LEE L. REV. 587, 588 (2009) (offering a new approach to teaching human origins in public schools and arguing that it is constitutionally viable under the Establishment Clause); Ravitch, *supra* note 12, at 875 (noting the role of other First Amendment principles such as the “public forum doctrine” and “equal access concept” in the debate over intelligent

nesses” language was omitted from the 2009 version of Texas’ state science standards without having ever been challenged in the courts,⁷⁸ it foreshadowed the current campaign in Texas and elsewhere around the country to modify state science standards to combat evolution instruction and the resultant debate over the religious implications of those revisions.⁷⁹

III. THE DISTRIBUTIVE MODEL

The modern face of the evolution debate represents a new step in the historical development of evolution instruction policy. The “distributive model” for challenging the teaching of evolution is related to the “strengths and weaknesses” strategy insofar as it is a facially

design instruction); Kelly S. Terry, *Shifting out of Neutral: Intelligent Design and the Road to Nonpreferentialism*, 18 B.U. PUB. INT. L.J. 67, 67 (2008) (suggesting the emergence of the nonpreferentialist doctrine in Establishment Clause cases involving evolution instruction); Anita Y. Woudenberg, *Propagating A Lemon: How the Supreme Court Establishes Religion in the Name of Neutrality*, 7 FIRST AMENDMENT L. REV. 307, 308–09 (2009) (suggesting that the Establishment Clause should be narrowed in a number of cases, including some cases involving evolution instruction, and that the Free Speech Clause is better suited to resolve those cases). Even the rare example of commentary that does not focus on evolution instruction’s implications under the First Amendment tends not to consider alternative legal issues. See, e.g., Paul D. Carrington, *Freedom to Err: The Idea of Natural Selection in Politics, Schools, and Courts*, 17 WM. & MARY BILL RTS. J. 1, 2 (2008) (offering a legislative solution to the evolution debate). For reasons discussed below, it is the thesis of this Article that recent developments in antievolutionist policy-making counsels review from a broader perspective that includes questions of religious establishment, but that also allows for a wider array of legal and political issues to be explored in connection with these policies.

⁷⁸ See *A Setback for Science Education in Texas*, NAT’L CTR. SCI. EDUC., (Apr. 1, 2009), <http://ncseweb.org/news/2009/04/setback-science-education-texas-004710> (noting that, in passing the new state science standards in Texas, “creationists on the board were unsuccessful in inserting the controversial ‘strengths and weaknesses’ language from the old set of standards”); *Darwin’s in the Details*, *supra* note 1 (statement of Bob Garfield) (as saying “[t]he Texas Board of Education voted to do away with the ‘strengths and weaknesses’ clause”). In general, controversial revisions to state science standards come under close political scrutiny (and often reversal) before a legal challenge takes place. See, e.g., *Evolution Debate in Kansas (12/4/06)*, *supra* note 6 (noting that as of 2006, “[t]he science standards for public schools in Kansas have been rewritten five times in the past eight years”).

⁷⁹ See, e.g., *Darwin’s in the Details*, *supra* note 1 (statement of Eugenie Scott) (“[The new Texas standards] give[] a creationist teacher an opportunity to say, well, you know, perhaps you should just read Genesis. So it’s creationism by the back door.”); *id.* (statement of Casey Luskin) (“[T]eaching evolution in [a] manner that [in accordance with Texas’ new standards] allows students to ask hard questions and really investigate and analyze the issues is the best way to teach science.”); *Texas Improves on Strengths and Weaknesses Language in Science Standards on Teaching Evolution*, *supra* note 74 (“Under [Texas’] new standards, students will be expected to analyze and evaluate the scientific evidence for evolution, not religion.”); Slack, *Texas on Evolution*, *supra* note 75 (“Each of the amendments [to the Texas science standards] singles out an old creationist argument, strips it of its overtly ideological language, and requires teachers and textbook publishers to adopt it.”).

neutral policy focused on the development of state science standards that encourage educators to promote critical thinking about scientific theories, including evolution. Unlike prior antievolutionist policy, however, the distributive model seeks to shift virtually all responsibility for deciding how to address the evolution “controversy” to individual teachers in individual classrooms.⁸⁰ By empowering educators to determine how best to approach the evolution debate on a case-by-case basis, the distributive model represents a departure from not only the strengths and weaknesses strategy,⁸¹ but from every previous attempt to challenge evolution instruction. It is most often manifest in “academic freedom bills,”⁸² which have been proposed in several states⁸³ and closely resemble the Discovery Institute’s *Model Academic Freedom Statute on Evolution*.⁸⁴ Academic freedom bills create a plat-

80 The distributive model’s transfer of ultimate authority over how to teach evolution to individual educators, and not to a government agency like a school board, is significant for two reasons. First, it is an important departure from earlier evolution instruction policies, which relied on policy makers like legislatures or school boards. Second, it is critical to antievolutionists’ policy objectives for advancing the distributive model. If the distributive model only permitted school boards to make specific decisions about how teachers in a particular jurisdiction should teach evolution, those decisions would too closely resemble the type of prospective statements about evolution instruction that have already been found unconstitutional under the Establishment Clause. *See, e.g.,* *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707 (M.D. Pa. 2005) (striking down a school board’s efforts to require that an anti-evolution disclaimer be read to students in science class). Although perhaps not as effective a tool for combating evolution instruction, the distributive model’s delegation of policy-making authority to individual teachers represents a distinct advantage over broader policies promulgated by school boards because it permits prospective statements about evolution instruction to remain sufficiently general to avoid constitutional challenge. For further discussion of the difficulties in applying the Establishment Clause to the distributive model, see *infra* Part IV.C.

81 *See* discussion *infra* note 105 (explaining the significant differences between the strengths and weaknesses strategy and the distributive model).

82 *See* Bhattacharjee, *supra* note 5, at 1250 (describing the current evolution instruction debate by stating that “[b]esides periodic assaults on science standards as we recently saw in Texas, we are concerned about antievolution legislation in different states under the guise of academic freedom bills”).

83 *See id.* (“Just in the last few weeks, antievolution bills awaiting decisions in a number of states—Oklahoma, South Carolina, Alabama—died in committee.”); Rosenau, *supra* note 5, at 1 (“In the last two years alone, 18 bills [similar to academic freedom bills] in 10 states have targeted the teaching of evolution.”); *see also* “Academic Freedom” Bills by State & Year, NAT’L CTR. SCI. EDUC. (Mar. 20, 2009), <http://ncse.com/creationism/general/academic-freedom-bills-by-state-year> (listing academic freedom bills by state and year).

84 Perhaps the most well-known and influential challenger of evolution instruction is the Discovery Institute’s Center for Science and Culture. The Discovery Institute is an organization that, in its own words, “discovers and promotes ideas in the common sense tradition of representative government, the free market and individual liberty.” *About Discovery: Mission Statement*, DISCOVERY INST., <http://www.discovery.org/about.php> (last visited Oct. 9, 2010). The Institute’s Center for Science and Culture describes itself as a program designed to “support[] research by scientists and other scholars” into alternatives to

form for governments that want to limit, or present alternatives to, the teaching of evolution to respond to judicial rejection of evolution disclaimers and intelligent design without running afoul of the Establishment Clause.⁸⁵ The bills do this by stepping back somewhat from the policy debate and making broader, more general statements about the integrity of science—including evolution—instruction. These statements refer to endorsing academic treatment of “the full range of scientific views regarding biological and chemical evolution,”⁸⁶ but avoid any specific prescription regarding evolution instruction.⁸⁷ Instead they are permissive, encouraging educators to engage student inquiries about the controversy surrounding evolution, but refraining from mandating whether or how they should go about doing so.⁸⁸

Louisiana and Texas have adopted this new approach.⁸⁹ In June of 2008, Louisiana passed an academic freedom bill called the “Louisiana Science Education Act,” which requires the State Board of Secondary and Elementary Education to “allow and assist teachers” to help students think critically about “scientific theo-

Darwinian evolution and to “encourage[] schools to improve science education” by teaching students about the “scientific weaknesses” of evolutionary theory. See DISCOVERY INST. CTR. SCI. & CULTURE, *supra* note 58. The Institute’s *Model Academic Freedom Statute on Evolution* was published on September 7, 2007 and frames the discussion in terms of teacher and student rights. See DISCOVERY INST., MODEL ACADEMIC FREEDOM STATUTE ON EVOLUTION (2007), <http://www.academicfreedompetition.com/freedom.php>. It expressly protects the rights of teachers to “present scientific information pertaining to the full range of scientific views regarding biological and chemical evolution,” and of students to “subscribe to a particular position on any views regarding biological or chemical evolution.” *Id.* §§ 3, 5. It also states specifically that it is not to be “construed as requiring or encouraging any change in the state curriculum standards,” or as “promoting any religious doctrine.” *Id.* at §§ 6, 7.

⁸⁵ See Bhattacharjee, *supra* note 5, at 1250–51 (describing academic freedom bills as constituting “closet creationism being introduced through wording not obvious to those unfamiliar with the history of the controversy. . . . *ID* [Intelligent Design] proponents have repackaged *ID* and are promoting it as ‘evidence against evolution’”).

⁸⁶ MODEL ACADEMIC FREEDOM STATUTE ON EVOLUTION, *supra* note 84, § 3.

⁸⁷ *Id.* (providing that teachers in elementary and secondary schools “shall have the affirmative right and freedom to present scientific information pertaining to the full range of scientific views regarding biological and chemical evolution”).

⁸⁸ See H.B. 397 § 1, Gen. Assem., 10th Reg. Sess. (Ky. 2010), available at <http://www.lrc.ky.gov/record/10RS/HB397.htm> (stating that “[t]eachers, principals, and other school administrators are encouraged to create and foster an environment within public elementary and secondary schools that promotes critical thinking skills, logical analysis, and open and objective discussion of the advantages and disadvantages of scientific theories being studied [including evolution]”).

⁸⁹ See Louisiana Science Education Act, LA. REV. STAT. ANN. § 17:285.1.B(1) (2008). The full text of Texas’ revised state science standards is published in Chapter 112 of Title 19 of the Texas Administrative Code.

ries . . . including . . . evolution, the origins of life, global warming, and human cloning.”⁹⁰ The Act defines the assistance available to educators as “support and guidance for teachers regarding effective ways to help students . . . critique . . . scientific theories . . . including [evolution],”⁹¹ and expressly permits teachers, in addition to presenting the material in the standard textbook provided by the state board, to “use supplemental textbooks and other instructional materials to help students . . . critique . . . scientific theories.”⁹² The Act further states that it “shall not be construed to promote any religious doctrine,”⁹³ and calls for the promulgation of “rules and regulations necessary to implement” it.⁹⁴ As with other academic freedom statutes, however, Louisiana’s Act does not require educators to introduce any critiques of the material in the standard science textbooks, nor does it prescribe how educators who choose to take this approach should go about promoting such critical scientific thinking in the classroom.⁹⁵ The controversy surrounding the Act has been strong. Despite the fact that it refers to theories other than evolution, critics of the Act have, consistent with the doctrinal history of the evolution instruction debate,⁹⁶ focused almost exclusively on their perception that the Act functions as an invitation to teach creationism and other religiously-based explanations of human origins in science classes.⁹⁷ The

⁹⁰ Louisiana Science Education Act, LA. REV. STAT. ANN. § 17:285.1.B(1) (2008).

⁹¹ *Id.* § 17:285.1.B(2).

⁹² *Id.* § 17:285.1.C.

⁹³ *Id.* § 17:285.1.D.

⁹⁴ *Id.* § 17:285.1.E. A rule was published in the Louisiana Register on August 20, 2009, and, with the exception of some more explicit procedures for challenging an educator’s decision to utilize supplemental materials in the teaching of evolution, the language of the proposed rule echoes that of the Act. See Bulletin 741-Louisiana Handbook for School Administrators, Curriculum and Instruction, Science Education, 35:8 La. Reg. 1476 (Aug. 20, 2009).

⁹⁵ LA. REV. STAT. ANN. § 17:285.1.B(1), (2) (stating that the State Board of Education “shall *allow and assist* teachers . . . to create and foster an environment . . . that promotes critical thinking . . . of scientific theories,” including offering “support and guidance” for those efforts) (emphasis added).

⁹⁶ See *supra* Part II (discussing the doctrinal history of the evolution instruction debate).

⁹⁷ Editorial, *Louisiana’s Latest Assault on Darwin*, N.Y. TIMES, June 21, 2008, at A18 (“The state, after all, has a sorry history as a hotbed of creationists’ efforts to inject religious views into science courses. All that stands in the way of this retrograde step [via the Louisiana Science Education Act] is Gov. Bobby Jindal.”); Letter from Alan I. Leshner, Chief Exec. Officer, Am. Assoc. for the Advancement of Sci., to The Honorable Bobby Jindal, Governor of La. (June 20, 2008), http://lasciencecoalition.org/docs/AAAS_Jindal_veto_6.20.08.pdf (“[T]he Louisiana Science Education Act . . . appears designed to insert religious or unscientific views into science classrooms.”); Letter from Richard O’Grady, Ph.D., Exec. Dir., Am. Inst. of Biological Scis., to La. State Representatives (June 9, 2008), available at http://lasciencecoalition.org/docs/AIBS_Oppose_SB_733_6.9.08.pdf (criticizing the Louisiana statute as promoting “super-

Act's supporters also focus their arguments on the question of religious establishment, but describe the Act as a religiously-neutral move toward more intellectually honest and open-minded discussion of controversial scientific topics like evolution in our public schools.⁹⁸

Similarly, in March of 2009, the State Board of Education in Texas⁹⁹ adopted a new set of science standards.¹⁰⁰ The new standards seek to “encourage critical thinking” about the sciences by “expect[ing]” students to “analyze, evaluate, and critique scientific explanations . . . including examining all sides of scientific evidence of those scientific explanations” relating to evolution.¹⁰¹ More specifically, under the new standards students are “expected” to “analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record,”¹⁰² “analyze and evaluate scientific explanation concerning the complexity of the cell,”¹⁰³ and “evaluate the evidence concerning . . . current theories of the evolution of the universe, including estimates for the age of the universe.”¹⁰⁴ Texas’ new standards are analogous to the

natural” explanations of human origins in the classroom); Letter from Dena S. Sher, State Legislative Council, Ams. United for Separation of Church and State, to La. State Representatives (May 28, 2008), *available at* http://lasciencecoalition.org/docs/AU_Oppose_SB_733_5.28.08.pdf (stating that the Louisiana Science Education Act “would attempt[s] to introduce religion into science classrooms”).

- 98 Memorandum from Paul G. Pastorek, La. State Dep’t of Educ., to City, Parish, and other Local Sch. Superintendents *et al.* (Aug. 27, 2008) (defending the Louisiana Science Education Act as not “promot[ing] any religious doctrine”); John G. West, *Louisiana Confounds the Science Thought Police*, NAT’L REV. ONLINE (July 8, 2008), <http://article.nationalreview.com/?q=NjNjYTNjMTVhNmVhMmYxN2JkMWZhMzYzMG NjNzY4ZDE> (describing opposition to the Louisiana Science Education Act as a “disinformation campaign” based on “denouncing the bill as a nefarious plot to sneak religion into the classroom”); John G. West, *Questions and Answers About the Proposed Louisiana Science Education Act*, DISCOVERY INST. EVOLUTION NEWS & VIEWS (June 12, 2008), http://www.evolutionnews.org/2008/06/questions_and_answers_about_th.html (stating that the Louisiana Science Education Act would not “allow the teaching of creationism or other religious beliefs”).
- 99 Texas is a particularly important participant in the evolution debate because it is the Nation’s largest purchaser of school textbooks and therefore a significant influence over the content and direction of educational science texts. *See* Castro, *supra* note 73.
- 100 The full text of Texas’ revised state science standards is published in Chapter 112 of Title 19 of the Texas Administrative Code.
- 101 19 TEX. ADMIN. CODE § 112.34(c)(3)(A) (2009). The standards also seek to promote critical thinking about other politically controversial scientific issues such as global warming. *See id.* § 112.37(c)(9)(H) (explaining that the student “is expected to . . . analyze and evaluate different views on the existence of global warming”).
- 102 *Id.* § 112.34(c)(7)(B).
- 103 *Id.* § 112.34(c)(7)(G). Sudden appearance, stasis, and cellular complexity are all concepts used in support of non-evolutionary theories of human origins. *See* Slack, *Texas on Evolution*, *supra* note 75.
- 104 19 TEX ADMIN. CODE § 112.36(c)(4)(A) (2009).

approach taken in academic freedom bills like Louisiana's in that they make clear to educators that they have the opportunity to introduce criticisms or alternative explanations of human origins, but they do not go as far as mandating a method for doing so.¹⁰⁵ Also, like the Louisiana statute, opinions on both sides of the issue have been plentiful and passionate, and have focused almost exclusively on the question of whether the new standards will permit the introduction of religion into the classroom.¹⁰⁶ Detractors have accused the standards of intentionally creating opportunities for educators to introduce creationism in science class,¹⁰⁷ while proponents laud the changes as

¹⁰⁵ See, e.g., *id.* § 112.34(c)(7) (explaining that students are “expected to” think critically about evolutionary concepts, but not specifying which materials or methods should be used to promote such critical thinking). This feature of Texas’ new standards is not necessarily new in Texas. The “strengths and weaknesses” language from Texas’ prior standards could be read as a very similar strategic approach to Texas’ new standard emphasizing expectations of critical thought. Texas’ new language is nevertheless important to this discussion for at least two reasons. First, the “strengths and weaknesses” language failed to survive the regulatory process, indicating that the new standards are better reflective of the current movement to challenge traditional evolution instruction. Rather than expressly directing educators to introduce weaknesses of evolutionary theory, the new standards are potentially broader, in that they could be read to permit educators to decide the best way to help students think critically about evolution without necessarily focusing on specific weaknesses of evolution itself. For one instructor this may be to remind students of the definition of a scientific theory as potentially refutable. See, e.g., *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 735 (M.D. Pa. 2005) (citing expert testimony describing the scientific method as a “self-imposed convention of science, which limits inquiry to testable, natural explanations about the natural world . . . [and it] is a ‘ground rule’ of science today which requires scientists to seek explanations in the world around us based upon what we can observe, test, replicate, and verify”). For another, it may mean introducing competing ideas about human origins—like creationism—into a science class. By removing the word “weaknesses,” which seems to mandate a direct challenge to evolution on its own terms, and replacing it with language about critical analysis, Texas’ new standards represent precisely the same approach to the evolution instruction issue as academic freedom bills like the Louisiana Science Education Act, LA. REV. STAT. ANN. § 17:285.1 (2008). Second, and on a related note, Texas adopted its new standards in an environment in which academic freedom bills are the most popular policy measure for opponents of evolution instruction. See Rosenau, *supra* note 5, at 1 (“In the last two years alone, 18 bills in 10 states have targeted the teaching of evolution. These bills . . . authorize teachers to omit evolution or include creationism at their whim.”). This political environment is relevant in interpreting Texas’ regulatory approach and counsels in favor of reading Texas’ new standards as philosophically consistent with academic freedom bills.

¹⁰⁶ See, e.g., NAT’L CTR. FOR SCI. EDUC., A SETBACK FOR SCIENCE EDUCATION IN TEXAS (Apr. 1, 2009) (pointing to “creationists” on the board of education who sought to use the new science standards to “encourage[] the presentation of creationist claims”); Slack, *Texas on Evolution*, *supra* note 75 (describing the debate over new science standards in Texas as one between “scientists and creationists”).

¹⁰⁷ See *Darwin’s in the Details*, *supra* note 1 (statement of Eugenie Scott) (explaining that Texas’ new policy permits individual teachers to respond to student inquiries about evolution by saying “perhaps you should just read Genesis”); see also *id.* (statement of Christine Cas-

“progressive” and “a significant victory for scientists and educators in favor of teaching the scientific evidence for and against evolution.”¹⁰⁸

These examples of the current approach to combating evolution instruction are most interesting not for their specific language, but for their broader commonalities, which corroborate the emerging trend in the debate over teaching evolution. Louisiana and Texas’ enactments, along with the *Model Academic Freedom Statute on Evolution* and many other academic freedom bills that are pending or that failed in their respective states,¹⁰⁹ represent a movement away from sweeping legislative prescriptions for evolution instruction and toward a more diffuse policy approach that shifts decision making about the intricacies of teaching evolution from legislatures and regulators to individual educators.¹¹⁰ Previous methods of challenging evolution instruction involved generally applicable mandates in the form of prohibitions, requirements of balanced treatment, or mandatory disclaimers, and were all found invalid under the Establishment Clause.¹¹¹ Recent enactments, by contrast, seek to avoid this problem

tillo Comer, the former Director of Science for the Texas Education Agency, stating that Texas’ new science standards may bind teachers “to just have to teach any kind of pseudo-science” in response to student inquiries about evolution).

108 *Texas Improves on Strengths and Weaknesses Language in Science Standards on Teaching Evolution*, *supra* note 74.

109 In addition to successful measures in Louisiana and Texas, evolution opponents introduced similar measures in at least ten other States that were legislatively defeated. *See, e.g., “Academic Freedom” Bills by State & Year*, *supra* note 83 (reporting on the defeat of academic freedom bills in Alabama, Florida, Iowa, Kentucky, Maryland, Michigan, Missouri, New Mexico, Oklahoma, and South Carolina as of June 6, 2010).

110 This is confirmed by the enacted regulation implementing the Louisiana Science Education Act, 35:8 La. Reg. 1476 (Aug. 20, 2009). The rule, like the Act under which it was promulgated, states that the Board of Elementary and Secondary Education “shall, upon request . . . allow and assist teachers and school administrators to create and foster an environment that promotes critical thinking skills, logical analysis, and open and objective discussion of concepts, laws, principles, and scientific theories.” *Id.* It says nothing more about how educators are to go about encouraging students to be critical about scientific theories, nor does it go as far as the Act in specifying which theories are of particular concern.

111 *See, e.g., ARK. CODE ANN. §§ 80-1627, 80-1628 (1960)* (prohibiting public schools from teaching “the theory or doctrine that mankind ascended or descended from a lower order of animals”); Louisiana Balanced Treatment for Creation-Science and Evolution-Science in Public School Instruction Act, LA. REV. STAT. ANN. §§ 17:286.1–17:286.7 (1982) (forbidding evolution instruction in public school unless accompanied by instruction in creationism); *Selman v. Cobb Cnty. Sch. Dist.*, 390 F. Supp. 2d 1286, 1286 (N.D. Ga. 2005) (invalidating a mandatory disclaimer placed inside every science textbook in the district). There are also prior instances, like the “strengths and weaknesses strategy” employed in Texas’ former science standards, that do not require educators to engage in conduct that challenges or dilutes evolution instruction, but rather create an environment wherein individual educators could choose to challenge evolutionary theory. To the extent such policy measures existed before the distributive model, they have not been

by relying on vague statements about the value of critical thinking without taking any overt or official position as to how evolution should be taught. Instead, responsibility is distributed to individual educators to make that determination by acting as policy makers who are empowered to decide for themselves how to best resolve the issue on a case-by-case basis.¹¹²

This “distributive model” for addressing questions of evolution instruction has profound implications for the future of the evolution instruction debate and for the way in which policy measures based on that model are evaluated under the law. As explained above, the evolution instruction debate has historically been doctrinally one-dimensional; despite the dynamic nature of the policy measures impacting the debate—including the distributive model—these measures have all been evaluated solely in terms of their validity under the Establishment Clause.¹¹³ Regardless of whether religion is in fact the driving force behind the development of the distributive model,¹¹⁴ the model’s political and legal ramifications are too broad to be treated as a single constitutional issue or, for that matter, as solely a matter of constitutional law.¹¹⁵

challenged in the courts and nonetheless exhibit some distinct characteristics. For a full discussion of the relevant differences between the “strengths and weaknesses strategy” and the distributive model, *see supra* note 105.

112 *See* discussion *supra* note 80 (describing why the distributive model focuses policy-making authority on the individual level, rather than at the agency level through school boards). For example, if a science teacher is asked by a student whether evolution is a scientific “fact,” the distributive model says little or nothing about how the teacher should respond. The teacher could choose to do anything from pointing the student to the definition of a scientific theory, to mentioning that a scientific controversy exists surrounding evolution, to recommending alternative theories such as intelligent design, to suggesting that the student ask their parents or pastor for advice or look to sources like the Book of Genesis to explain human origins. Most, if not all, of these choices would fall within the range of conduct permitted by the distributive model, but none is mandated by it.

113 *See supra* note 77 and accompanying text.

114 *See* discussion *supra* notes 97–98, 107–08 and accompanying text (outlining the debate about whether academic freedom bills and Texas’ newly revised science standards implicate creationism).

115 A different approach would be to reconsider the scope of current Establishment Clause doctrine to ensure that it can accommodate concerns that even facially neutral policies like the distributive model are, at their core, merely attempts by lawmakers to facilitate the presentation of religious theories of human origins in science classes. While this approach may certainly be worthwhile, and has been addressed in previous publications by the author, *see* Louis J. Virelli III, *Making Lemonade: A New Approach to Evaluating Evolution Disclaimers Under the Establishment Clause*, 60 U. MIAMI L. REV. 423 (2006) [hereinafter Virelli, *Making Lemonade*], it is not mutually exclusive with the animating position of this Article, namely that the distributive model is better viewed in the broader context of principles of administrative law.

IV. THE DISTRIBUTIVE MODEL AND ADMINISTRATIVE LAW

A more comprehensive view of the distributive model, one that incorporates the model's political and legal complexities, is attainable only by stepping back from the traditional religious context for viewing evolution instruction policy and considering all of the distributive model's policy features. When treated in its entirety, the distributive model ceases to look like a one-dimensional legislative flirtation with religious establishment and begins to reveal itself for what it is—a complex public policy measure that raises a wide variety of political and legal, including constitutional, issues. Closer examination demonstrates that the most fruitful approach for addressing these issues is through application of principles associated with administrative law. This Article argues that a consideration of general principles germane to administrative law will empower us to ask more and better questions about the distributive model than would reliance on the Establishment Clause alone.

A. *Administrative Law Principles*

This new analytical approach to evolution instruction first requires an explanation of what is meant—for purposes of this discussion—by reference to “principles” of administrative law. Administrative law is the collection of political issues and legal doctrines surrounding the formation and conduct of administrative agencies.¹¹⁶ Without question, even under this definition, administrative law is not exclusive of constitutional questions. The constitutional validity of state action in the administrative context is no less subject to challenge—under the Establishment Clause, for instance—where the government conduct at issue is an administrative regulation or a statute.

¹¹⁶ There is little made in this discussion of the sometimes significant differences between federal and state administrative law. This is not due to a lack of recognition of those differences, but instead to the nature of the relevant inquiry. Although it is clear that the distributive model is an artifact of state law, and thus will be more directly impacted by state, as opposed to federal, administrative law, that distinction is rendered less important by the higher-level claim made herein. As will be discussed further in Part V, *infra*, the broad principles mentioned here are relevant to both federal and state administrative law and, as such, make that otherwise significant distinction less important to the instant analysis. To the extent later discussions of, for example, political legitimacy in the administrative context rely on the federal system as a reference, that is in the interest of simplicity and is neither meant to imply, nor does it in actuality represent, a relevant substantive difference between federal and state law in that area.

It does not follow, however, that administrative law is not in some ways unique, and indeed it is. Administrative law implicates questions of political legitimacy that are far less common in cases where power is exercised by a constitutionally-created branch of government.¹¹⁷ The powers of those branches are viewed as legitimate because they are expressly enumerated in the Constitution.¹¹⁸ The authority of agency action, by contrast, is far less clear as a matter of constitutional text and is more difficult to reconcile with accepted tenets of demo-

117 See Lisa Schultz Bressman, *Beyond Accountability: Arbitrariness and Legitimacy in the Administrative State*, 78 N.Y.U. L. REV. 461, 462 (2003) [hereinafter Bressman, *Beyond Accountability*] (“From the birth of the administrative state, we have struggled to describe our regulatory government as the legitimate child of a constitutional democracy. That is, we have sought to reconcile the administrative state with a constitutional structure that reserves important policy decisions for elected officials and not for appointed bureaucrats.”); Gary Lawson, *The Rise and Rise of the Administrative State*, 107 HARV. L. REV. 1231, 1231 (1994) (“The post-New Deal administrative state is unconstitutional, and its validation by the legal system amounts to nothing less than a bloodless constitutional revolution. . . . Faced with a choice between the administrative state and the Constitution, the architects of our modern government chose the administrative state, and their choice has stuck.” (citation omitted)).

118 See U.S. CONST. art. I–III; THOMAS C. MARKS, JR. & JOHN F. COOPER, *STATE CONSTITUTIONAL LAW IN A NUTSHELL* 190 (2d ed. 2003) (“[A]ll state governments are composed of three branches . . .”). This is not to say that there are never questions regarding whether the conduct of one of the three constitutionally-created branches of government is politically legitimate; some of the more interesting and complex issues in constitutional law involve questions about the scope and propriety of constitutionally-allotted government power. For example, questions about the extent of executive power during wartime and of judicial “policymaking” from the bench are common in current political discourse. See, e.g., *Boumediene v. Bush*, 128 S. Ct. 2229, 2240 (2008) (discussing the extent of presidential power to hold suspected terrorists during wartime); Jeffrey Rosen, *What’s Wrong with Judges Legislating from the Bench?*, TIME, July 16, 2009, <http://www.time.com/time/politics/article/0,8599,1910714,00.html> (“It’s too bad that neither [then-Judge] Sotomayor nor any of the Senators felt at liberty to say [during her Supreme Court confirmation hearing] what many scholars and court observers believe to be true: Justices often legislate from the bench, and sometimes that’s a good thing.”). The frequency and import of those questions to the functioning of tripartite government, however, is not as profound as in the administrative context. If questions about the political legitimacy of congressional or judicial action are not answered definitively by the text of the Constitution, they are nonetheless rarely if ever invoked to seriously question the democratic validity of the entire institution. By contrast, the political (i.e., democratic) legitimacy of the administrative state is a question that has persisted throughout our administrative history, and that is alive and well today in academic commentary about administrative law, see Cynthia R. Farina, *The Consent of the Governed: Against Simple Rules for a Complex World*, 72 CHI-KENT L. REV. 987, 987 (1997) (“Like an intriguing but awkward family heirloom, the legitimacy problem is handed down from generation to generation of administrative law scholars.”), as well as in law school curricula on the subject. See MICHAEL ASIMOW & RONALD M. LEVIN, *STATE AND FEDERAL ADMINISTRATIVE LAW* 10 (3d ed. 2009) (“Federal and state constitutions do not usually mention administrative agencies and agency heads are not elected As a result, many people question whether the exercise of . . . power by agencies is legitimate.”).

cratic government.¹¹⁹ As a result, the legitimacy of the administrative state has been a source of frequent and contentious debate since its inception.¹²⁰ Arguments about the value of expert and independent regulators tackling highly complex and technical problems of modern government have been countered by concerns over ossification and agency capture,¹²¹ and a complex doctrine of judicial review has developed to counter-balance the wide discretion granted to unelected administrators.¹²² As the size and authority of modern administrative government expands, these issues have only grown in significance.¹²³

Moreover, administrative law contemplates the blending of traditionally separate government functions into a single legal entity in a way that is otherwise alien to our democratic government. Constitu-

119 See Lawson, *supra* note 117, at 1231; see also Lisa Schultz Bressman, *Disciplining Delegation After Whitman v. American Trucking Ass'ns*, 87 CORNELL L. REV. 452, 485 (2002) [hereinafter Bressman, *Disciplining Delegation*] (“[Administrative law principles] require agencies in general to articulate a basis for their policy determinations and, in particular, to articulate the standards for those determinations.”); Cary Coglianese & Gary E. Marchant, *Shifting Sands: The Limits of Science in Setting Risk Standards*, 152 U. PA. L. REV. 1255, 1256 (2004) (“Administrative law aspires to bring reason to agency policymaking.”). The same legitimacy issues exist in the context of state administrative law. See ASIMOW & LEVIN, *supra* note 118, at 10.

120 See Bressman, *Beyond Accountability*, *supra* note 117, at 462.

121 See, e.g., Thomas O. McGarity, *Some Thoughts on “Deossifying” the Rulemaking Process*, 41 DUKE L.J. 1385, 1403–07 (1992) (discussing ossification in the rulemaking process); Thomas W. Merrill, *Capture Theory and the Courts: 1967-1983*, 72 CHI.-KENT L. REV. 1039, 1059-67, 1060 (1997) (describing the significance of agency capture, the theory that “the agency often becomes closely identified with and dependent upon the industry it is charged with regulating” in the development of administrative law).

122 See, e.g., 5 U.S.C. § 706 (2006) (outlining the various standards of judicial review for “agency action[s], findings, and conclusions”); FINAL REPORT OF THE ATT’Y GEN.’S COMM. ON ADMIN. PROCEDURE 91 (1941) (explaining that the depth of judicial review depends on “[t]he character of the administrative agency, the nature of the problems with which it deals, the nature and consequences of the administrative action, the confidence which the agency has won, the degree to which the review would interfere with the agency’s functions or burden the courts, the nature of the proceedings before the administrative agency, and similar factors”); LOUIS L. JAFFE, *JUDICIAL CONTROL OF ADMINISTRATIVE ACTION* 320 (1965) (“The availability of judicial review is the necessary condition . . . of a system of administrative power which purports to be legitimate, or legally valid.”).

123 See Steven P. Croley, *Theories of Regulation: Incorporating the Administrative Process*, 98 COLUM. L. REV. 1, 3 (1998) (“The sheer power wielded by the administrative state . . . immediately raises questions about its efficacy and even its political legitimacy.”); Mark Seidenfeld, *A Civic Republican Justification for the Bureaucratic State*, 105 HARV. L. REV. 1511, 1512 (1992) (“Over the past century, the powers and responsibilities of administrative agencies have grown to an extent that calls into question the constitutional legitimacy of the modern federal bureaucracy.”); see also Matt Welch & Nick Gillespie, Op-Ed., *What’s Next Mr. President—Cardigans?*, WASH. POST, July 19, 2009, at B09 (describing the federal government’s bailout of the auto industry as “illegal”).

tional law¹²⁴ often compartmentalizes government functions of making, executing, and applying the law as a means of maintaining the integrity of our political system.¹²⁵ This approach is not, however, a foundational feature of the administrative state.¹²⁶ Individual agencies are often microcosms of the tripartite government structure designed in the Constitution: a single legal entity (often with a single final decision maker) acts in a legislative (rulemaking), executive (investigation, enforcement) and judicial (adjudicative) capacity.¹²⁷ In

124 Constitutional law is used here as the foil for administrative law principles for the simple reason that the features of administrative law that are of most interest to this project are most closely analogous to issues commonly addressed in constitutional law, such as the source, formation, and power of government.

125 Taken literally, this statement is not uncontroversial. Although state law tends toward a more rigid definition of separation, *see* MARKS & COOPER, *supra* note 118, at 189 (explaining that state constitutions “allocate the state’s inherent power to [the] legislature, executive, and judiciary,” and that unlike the federal constitution, “most state constitutions also contain a specific mandate providing for the separation of powers”), the question with regard to the federal government is far less clear. Much has been said about whether the separation of powers at the federal level should be understood formalistically to prohibit one branch of government from intruding on the prerogatives of another (for example whether the judicial branch can “legislate” from the bench), *see* Peter L. Strauss, *The Place of Agencies in Government: Separation of Powers and the Fourth Branch*, 84 COLUM. L. REV. 573, 577 (1984) [hereinafter Strauss, *The Place of Agencies*] (explaining the formalist approach to tripartite government as “suppos[ing] that what government does can be characterized in terms of the kind of act performed—legislating, enforcing, and determining the particular application of law—and that for the safety of the citizenry from tyrannous government these three functions must be kept in distinct places”), or whether a more functionalist approach should be employed, whereby the three constitutional branches interact so as to maximize their ability to provide checks and balances against one or more branches’ attempts to unduly usurp the rightful authority of another branch. *See id.* at 578 (describing the functionalist argument for separation of powers as seeking to “protect the citizens from . . . tyrannical government by establishing multiple heads of authority in government, which are then pitted one against another in a continuous struggle; the intent of that struggle is to deny to any one (or two) of them the capacity ever to consolidate all governmental authority in itself”). The resolution of this debate, however, is not necessary to the present analysis. Regardless of how distinct the spheres of constitutional power among the three coordinate branches, the separation of powers at minimum “stresses the distinctness of the branches . . . in relation to their ‘core functions.’” Edward Susolik, Note, *Separation of Powers and Liberty: The Appointments Clause, Morrison v. Olson, and Rule of Law*, 63 S. CAL. L. REV. 1515, 1528 (1990) (quoting Peter L. Strauss, *The Place of Agencies in Government, supra* at 578).

126 *See* Peter L. Strauss, *Formal and Functional Approaches to Separation-of-Powers Questions—A Foolish Inconsistency?*, 72 CORNELL L. REV. 488, 495 (1987) [hereinafter Strauss, *Formal and Functional Approaches*] (“[T]he years since the *Marbury* decision have seen the emergence of administrative discretion exercised by agencies in *all* the characteristic forms of governmental action—legislative, executive, and judicial.”); *see also* William J. Pohlman, Comment, *The Continued Viability of Ohio’s Procedure for Legislative Review of Agency Rules in the Post-Chadha Era*, 49 OHIO ST. L.J. 251, 251 (1988) (“[A]dministrative agencies may have authority to exercise legislative functions, judicial functions, or both.”).

127 *See* THE PRESIDENT’S COMM. ON ADMIN. MGMT., REPORT OF THE COMMITTEE WITH STUDIES OF ADMINISTRATIVE MANAGEMENT IN THE FEDERAL GOVERNMENT 39, 40 (1937) (describ-

the context of administrative programs, this means that a program designed and administered by an agency could implicate legal issues that are unique to administrative law.

Delegation is among the most prominent of these issues. Delegation is the process whereby a constitutionally-mandated governmental entity acts within its authority to empower another entity to perform a function normally reserved to the former.¹²⁸ Although it centers on constitutional concerns about the separation of powers, delegation is generally not a prominent issue outside of the administrative law context because delegation between the three constitutionally-mandated branches of government¹²⁹—at least with regard to the “core functions” of those branches—is largely prohibited.¹³⁰ The legislature cannot, for example, empower itself to execute its own laws, nor can it empower the President to craft and enact legislation.¹³¹ Delegation is, however, a fundamental and (somewhat) controversial issue in administrative law that asks whether legislators or rule makers¹³² act

ing administrative agencies as “miniature independent governments”); *see also* Strauss, *Formal and Functional Approaches*, *supra* note 126, at 492–93 (“[A]gencies adopt rules having the shape and impact of statutes, mold governmental policy through enforcement decisions and other initiatives, and decide cases in ways that determine the rights of private parties.”).

128 *See, e.g.*, Peter H. Aranson, Ernest Gellhorn, & Glen O. Robinson, *A Theory of Legislative Delegation*, 68 CORNELL L. REV. 1, 3–4 (1982) (“The delegation doctrine also has a theoretical application to the transfer of any government power. The transfer of judicial power to executive agencies, of executive power to the legislature, or of legislative power to the executive provide examples of this application.” (citations omitted)).

129 For purposes of this discussion, the three constitutionally-mandated branches (legislative, executive, and judicial) are treated as distinct from the oft-described “fourth branch” of administrative agencies. THE PRESIDENT’S COMM. ON ADMIN. MGMT., *supra* note 127, at 39–40.

130 Susolik, *supra* note 125, at 1528 (quoting Peter L. Strauss, *The Place of Agencies in Government*, *supra* note 125, at 578).

131 *See, e.g.*, *Clinton v. City of New York*, 524 U.S. 417 (1998) (holding the Line Item Veto Act unconstitutional on the grounds that it violated the Presentment Clause); *Bowsher v. Synar*, 478 U.S. 714 (1986) (holding that the powers granted to the Comptroller General under the Balanced Budget and Emergency Deficit Control Act violated the Constitution’s command that Congress play no direct role in the execution of the laws).

132 Courts have acknowledged the differences between delegation at the legislative and regulatory levels, noting that delegation by agency regulators to another component of that agency is better understood through administrative, rather than purely constitutional, law:

Judge Williams [in *Whitman v. American Trucking Associations*] seemed to acknowledge that the application of the nondelegation doctrine to invalidate a regulation and remand it to the agency was unconventional. However, he stated, the Supreme Court no longer insists on the “strong” form of nondelegation review that requires invalidation of standardless statutes. Rather, he explained, the Supreme Court only demands an intelligible principle to set limits on the exercise of administrative discretion and facilitate judicial review. Although Congress ordinarily supplies the requisite principle, Judge Williams commented, the agency, in the

within their constitutional authority when they bestow policy-making power on administrative agencies.¹³³ Delegation incorporates basic questions about the legitimacy of administrative government and the role of separation of powers in our democracy.¹³⁴

In short, the choice to apply principles of administrative law in evaluating a policy decision reveals questions that are simply beyond the scope of the Establishment Clause analyses that have heretofore dominated the evolution instruction debate. Because issues of political legitimacy, governmental multitasking, and delegation of policy making authority all fit more comfortably into an administrative law paradigm, any policy review that includes one or more of these issues should be approached with administrative law principles in mind.

B. *Administrative Features of the Distributive Model*

The distributive model has a number of administrative features. First, of course, is the technical matter that the model can be prom-

exercise of its expert judgment, instead could limit its own discretion. This approach, he later observed, fits better with modern doctrines of deference to administrative decisions applied in cases like *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*

Bressman, *Disciplining Delegation*, *supra* note 119, at 456–57 (citations omitted). For an example of intra-agency delegation, see the recently revised Texas state science standards, the full text of which is published in Chapter 112 of the Texas Administrative Code.

133 For purposes of this discussion, delegation is meant in the broadest sense to include delegation of both legislative and judicial authority to agencies. See, e.g., *Fed. Mar. Comm'n v. S. C. State Ports Auth.*, 535 U.S. 743, 773 (2002) (Breyer, J., dissenting) (“The Court long ago laid to rest any constitutional doubts about whether the Constitution permitted Congress to delegate rulemaking and adjudicative powers to agencies. That, in part, is because the Court established certain safeguards surrounding the exercise of these powers.” (citations omitted)). The distinction between these two types of delegation will be explored more fully in Part V.B.2, *infra*.

134 See Gary Lawson, *Delegation and Original Meaning*, 88 VA. L. REV. 327, 332 (2002) (“The delegation phenomenon raises fundamental questions about democracy, accountability, and the enterprise of American governance.”). Compare DAVID SCHOENBROD, *POWER WITHOUT RESPONSIBILITY: HOW CONGRESS ABUSES THE PEOPLE THROUGH DELEGATION* 39 (1993) (citing developments that restricted delegation) and Lawson, *supra* note 117, at 1249 (“[T]he most fundamental constitutional problems with modern administrative governance—unlimited federal power, rampant delegations of legislative authority, and the combination of functions in administrators—are not even remotely close cases.”), with JERRY L. MASHAW, GREED, CHAOS AND GOVERNANCE: USING PUBLIC CHOICE TO IMPROVE PUBLIC LAW 134 (1997) (“Since . . . [A. L. A. Schechter Poultry Corp. v. United States, 295 U.S. 495 (1935)] the Supreme Court has not invalidated a single statute on the basis of excessive delegation. This result—surprising, of course, given the history of the doctrine—cannot be explained by improvement since 1935 in the drafting of statutes.”) and Lawrence Lessig & Cass R. Sunstein, *The President and the Administration*, 94 COLUM. L. REV. 1, 55 (1994) (claiming that, under an originalist interpretation of the Constitution, “Congress has wide discretion to vest . . . [administrative powers] in officers operating under or beyond the plenary power of the President”).

ulgated by administrative agencies, typically at the state and local level.¹³⁵ This in and of itself is not a significant departure from previous evolution policies, nor is it necessarily the case; there is nothing inherent in the distributive model that precludes it from being part of a statutory mandate, and in fact many of the policy measures incorporating the model are statutes.¹³⁶ At best, then, the fact that it could be the work of an administrative agency is instructive, but far from dispositive, in helping to comprehend why the distributive model is best understood through application of administrative law principles.

Another basis for thinking about the distributive model in administrative terms is its grounding in scientific conflict.¹³⁷ While it is a legislature's prerogative to legislate on any topic within its constitutional power,¹³⁸ it is a founding principle of administrative law that agencies staffed with experienced experts in a particular field are better equipped to make complex, technical judgments in that field.¹³⁹ In the case of evolution instruction and the distributive model in particular, there are overlapping areas of relevant expertise. Experience and technical knowledge must be brought to bear in the fields of education and science, with the latter requiring an understanding of the current state of scientific opinion about the origins of human beings on Earth.¹⁴⁰ While this may not be entirely beyond the capacity

135 The full text of Texas' revised state science standards is published in Chapter 112 of Title 19 of the Texas Administrative Code.

136 In fact, the Louisiana Science Education Act institutes the distributive model as a matter of state statutory law. See Louisiana Science Education Act, LA. REV. STAT. ANN. § 17:285.1.B(1) (2008). Although it does call for regulations to be promulgated to implement the provisions of the Act, see Bulletin 741-Louisiana Handbook for School Administrators, Curriculum and Instruction, Science Education 35:8 La. Reg. 1476 (Aug. 20, 2009), Louisiana's policy regime for evolution instruction is essentially a matter of state statute.

137 One commentator described the new Texas science standards as "expanding the attacks beyond evolution to include scientific expertise itself." Rosenau, *supra* note 5, at 1.

138 See, e.g., *Gibbons v. Ogden*, 22 U.S. 1, 197 (1824) ("[T]he sovereignty of Congress, though limited to specified objects, is plenary as to those objects.").

139 See JAMES M. LANDIS, *THE ADMINISTRATIVE PROCESS* 23 (1938) ("With the rise of regulation, the need for expertness became dominant . . ."); Robert L. Rabin, *Federal Regulation in Historical Perspective*, 38 STAN. L. REV. 1189, 1252 (1986) ("As in its initial phase, the New Deal continued its propensity to address particularized areas of unrest through regulation by experts . . ."); *id.* at 1266 ("With the final legitimation of the New Deal came the acceptance of a central precept of public administration: faith in the ability of experts to develop effective solutions . . ."). Recently, Professors Freeman and Vermeule have noted the Supreme Court's support for the importance of agency expertise. See Jody Freeman & Adrian Vermeule, *Massachusetts v. EPA: From Politics to Expertise*, 2007 SUP. CT. REV. 51, 52 (2007) (noting "the Court majority's [in *Massachusetts v. EPA*, 549 U.S. 497 (2007)] increasing worries about the politicization of administrative expertise").

140 See *supra* notes 97–98, 107–08 and accompanying text (outlining the current debate over the distributive model of evolution instruction, in which proponents of the distributive

of legislators, it certainly appears better suited to administrative, rather than legislative, treatment.¹⁴¹

Administrative law principles are also implicated by the distributive model's decision-making regime. The distributive model is distinct from the evolution instruction policies that preceded it because the distributive model does not provide educators with a wide-reaching mandate regarding how to approach questions of human origins.¹⁴² Instead, it states a series of principles about scientific examination and integrity in the classroom and shifts the ultimate decision of how to handle issues pertaining to the veracity or exclusivity of evolutionary theory to educators on a local, individualized basis.¹⁴³ This is an important change from prior evolution instruction policy and is perhaps the strongest support for treating the distributive model as an administrative endeavor. The generalized mandates that preceded the distributive model fit neatly into the legislative and/or rulemaking paradigm; prohibitions on teaching evolution, balanced treatment legislation, and evolution disclaimers were all generalized prescriptions regarding evolution instruction.¹⁴⁴

The distributive model, by contrast, operates entirely differently. It begins with a statutory or regulatory framework that transfers policy-making authority to individual educators, who are then expected

model contend that evolutionary theory is vulnerable to scientific critique, while its opponents argue that there is no legitimate scientific controversy regarding the veracity of Darwinian evolution).

141 Professor DelFattore contends that as early as the "middle of the nineteenth century," scientific questions accompanying evolutionary theory had become too technically complex for nonscientists (including talented leaders and politicians like Wilberforce and Gladstone) to debate on an even footing with scientists. DelFattore, *supra* note 18, at 32 (citing JAMES R. MOORE, *THE POST-DARWINIAN CONTROVERSIES: A STUDY OF THE PROTESTANT STRUGGLE TO COME TO TERMS WITH DARWIN IN GREAT BRITAIN AND AMERICA 1870-1900* 213 (1979); GEORGE E. WEBB, *THE EVOLUTION CONTROVERSY IN AMERICA* 1, 64 (1994)).

142 See discussion *supra* Part III (describing the distributive model).

143 See discussion *supra* notes 87–88, 110–11 and accompanying text.

144 See, e.g., *Epperson v. Arkansas*, 393 U.S. 97, 98 & n.3 (1968) (invalidating "Initiated Act No. 1, Ark. Acts 1929; Ark. Stat. Ann. §§ 80-1627, 80-1628 (1960 Repl. Vol.)," which prohibits "a teacher in any state-supported school or university 'to teach the theory or doctrine that mankind ascended or descended from a lower order of animals,' or 'to adopt or use in any such institution a textbook that teaches' this theory"); see also *Edwards v. Aguillard*, 482 U.S. 578, 581 (1987) (invalidating the Louisiana Balanced Treatment for Creation-Science and Evolution-Science in Public School Instruction Act, LA. REV. STAT. ANN. §§ 17:286.1–17:286.7, which "forbids the teaching of the theory of evolution in public schools unless accompanied by instruction in 'creation science'"); *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 708 (M.D. Pa. 2005) (striking a requirement that school officials read a statement to ninth grade science students that evolution is "not a fact," and that "[g]aps in the theory exist for which there is no evidence").

to apply generalized legislative or regulatory instructions to reach more specific conclusions about how to educate their students about evolution. This form of policy making displays a common feature of administrative law: it empowers educators to operate on a continuum between quasi-legislative (regulatory) and quasi-judicial (adjudicative) policy making that is generally not permitted in any of the three constitutionally-mandated branches of government.¹⁴⁵ Put another way, the distributive model is best understood by reference to administrative law doctrine because it implicates the fundamental relationship in administrative law between rules and orders.¹⁴⁶

Although important to our understanding of administrative law, the distinction between rulemaking and adjudication can be difficult to identify in practice.¹⁴⁷ Rules are defined in federal and state administrative law as prospective, generally-applicable prescriptions that

¹⁴⁵ See discussion *supra* note 131 and accompanying text.

¹⁴⁶ See 5 U.S.C. § 551(4), (6) (2006) (originally enacted as Administrative Procedure Act of 1946, ch. 324, 60 Stat. 237) (defining rules and orders under the federal Administrative Procedure Act); MODEL STATE ADMIN. PROCEDURE ACT, 1981 ACT, § 1-102(5), (10) (1990). Professor Fuchs recognized the importance of the distinction between rules and orders at the outset of the administrative state:

Administrative rule-making is one type of function performed by administrative agencies. The procedural problems attending the exercise of this function are to some extent distinct from those which surround the performance of other administrative acts, such as decisions and orders addressed to particular individuals . . . Rule-making, sometimes referred to as "administrative legislation," and a companion function, often called "administrative adjudication," have become primary categories in the study of administrative law.

Ralph F. Fuchs, *Procedure in Administrative Rule-Making*, 52 HARV. L. REV. 259, 259 (1938). He went on to explain that:

The most obvious definition of rule-making . . . asserts simply that it is the function of laying down general regulations as distinguished from orders that apply to named persons or to specific situations. Most acts of legislatures . . . establish rights and duties with respect either to people generally or to classes of people or situations that are defined but not enumerated. Conversely, the judgments of courts usually are addressed to particular individuals or to situations that are definitely specified. Similarly, administrative action can be classified into general regulations, including determinations whose effect is to bring general regulations into operation, and orders or acts of specific application.

Id. at 263 (citations omitted).

¹⁴⁷ The characterization of administrative activity as rulemaking or adjudication has been a source of consistent controversy among courts and commentators. See, e.g., JOHN DICKINSON, *ADMINISTRATIVE JUSTICE AND THE SUPREMACY OF LAW IN THE UNITED STATES* 19–20 (1927) ("The whole discussion [about the rule-order distinction] should go to demonstrate the futility of trying to classify a particular exercise of administrative power as either wholly legislative or wholly judicial. The tendency of the administrative procedure is to foreshorten both functions into a continuous governmental act."); PETER L. STRAUSS, TODD D. RAKOFF & CYNTHIA R. FARINA, *GELLHORN & BYSE'S ADMINISTRATIVE LAW: CASES AND COMMENTS* 248–251 (10th ed. 2003) (collecting materials "that bear on the question of how the [rule-order] distinction is, as a general matter, to be drawn, and on the difficulties in doing so").

are developed in accordance with procedures designed to promote public participation and transparency.¹⁴⁸ Orders, by contrast, are the product of adjudication, are dispositions “of particular applicability determining the rights of specific parties on the basis of their special circumstances,” and are understood as binding only those parties.¹⁴⁹ Depending on how it is put into action, the distributive model represents a range of administrative activity that can at times be described as either rulemaking or adjudication. An examination of two permissible yet very different approaches to implementing the distributive model demonstrates this point.

In the first approach, a teacher responds to a specific request from a student asking her to address some part of the evolution debate by being critical of evolutionary theory. The teacher’s decision in this example is ad hoc, retrospective, and designed to affect only a particular group of people. It fits nicely within the definition of an order and has the added benefit of satisfying our instinctive understanding of an adjudicative decision in that it is focused on a specific, pre-existing conflict or inquiry.

The second approach, however, demonstrates the difficulty in classifying the distributive model as purely regulatory or adjudicative. In this approach, a teacher decides on her own initiative—without encountering any inquiries or concerns from students about the veracity of evolutionary theory—to design a lesson plan highlighting the “weaknesses” in evolutionary theory and to implement that lesson plan in her science classes from that point on. On its face, her decision looks like a rule: it is prospective, applicable to all current and future students, and is not aimed at an existing conflict. On the other hand, the decision could be said to fail as a rule, and thus be better described as an order, for a number of reasons. Although it is technically prospective, the decision remains so primarily in the mind of the individual instructor. She has no explicit authority under the model to promulgate any lasting, formal changes to the curriculum, in her classroom or otherwise, going forward. Her decision is also generally applicable only in context; it affects only those students in her classroom, and only while they are required to be in her class-

148 See ASIMOW & LEVIN, *supra* note 118, at 192–94; see also 5 U.S.C. §§ 551(4), 553 (defining a “rule” and describing informal rulemaking procedures under the federal Administrative Procedure Act); MODEL STATE ADMIN. PROCEDURE ACT § 1-102(5) (defining rules for use in state administrative law systems).

149 See Arthur Earl Bonfield, *State Administrative Policy Formulation and the Choice of Lawmaking Methodology*, 42 ADMIN. L. REV. 121, 122 (1990); see also ASIMOW & LEVIN, *supra* note 118, at 8 (discussing adjudication in state and federal administrative law); MODEL STATE ADMINISTRATIVE PROCEDURE ACT, 1981 ACT, §1-102(10) (1990) (defining orders).

room. The characterization of the teacher's decision as generally applicable thus depends on whether the decision's impact is measured in relation to the teacher's own jurisdiction, her classroom, or a larger group of students in, for example, the school as a whole, the school district, or the entire state. Moreover, although the process by which the teacher arrived at her hypothetical decision was the product of a procedurally valid statute or regulation, it does not itself contain any of the procedural protections associated with even informal—let alone formal—rulemaking under the APA and similar state statutes.¹⁵⁰ In short, this second approach to implementing the distributive model leaves much room for debate as to whether a teacher's decision is better described as a rule or an order.

These two examples are not intended to resolve the question of whether the distributive model represents a primarily regulatory or adjudicative regime, but instead to demonstrate that, while the implementation of the distributive model may not represent a paradigmatic example of either adjudication or rulemaking in every instance, the range of decision-making authority available to teachers under the model at minimum reflects the multi-dimensional nature of policy making that is endemic to administrative law.

Still another relevant feature of the distributive model is its delegation of authority by legislators or regulators to individual educators to act as local, relatively autonomous evolution instruction policy makers.¹⁵¹ The Discovery Institute's *Model Academic Freedom Statute* grants "every K-12 public school teacher . . . or instructor . . . the affirmative right and freedom to present scientific information pertaining to the full range of scientific views regarding biological and chemical evolution,"¹⁵² but nowhere suggests how, or whether those rights should be exercised. Similar language appears in the Louisiana and Texas enactments,¹⁵³ and confirms that the distributive model is a delegation of decision making authority from the state legislature or

150 See 5 U.S.C. § 553, 556–57 (describing procedures for formal and informal rulemaking under the federal APA); MODEL STATE ADMINISTRATIVE PROCEDURE ACT § 3-101 *et seq.* (describing rulemaking procedures).

151 See, e.g., Louisiana Science Education Act, LA, REV. STAT. ANN. § 17:285.1(B)(1) (2008) (requiring only that the State Board "allow and assist" teachers to promote "critical thinking" about evolution in their classrooms).

152 MODEL ACADEMIC FREEDOM STATUTE ON EVOLUTION, *supra* note 84, § 3.

153 See LA. REV. STAT. ANN. § 17:285.1.B(2) (defining the assistance available to educators as "support and guidance for teachers regarding effective ways to help students . . . critique . . . scientific theories . . . including [evolution]"); 19 TEX. ADMIN. CODE § 112.34(c)(7) (2009) (explaining that students are "expected to" think critically about evolutionary concepts, but not specifying which materials or methods should be used to promote such critical thinking).

education board to individual science teachers to determine how specific issues regarding the teaching of evolution will be resolved in specific instances.¹⁵⁴ Where authority is delegated from one administrative entity to another, such as in Texas' new standards, the case for treating the issue in terms of its relationship with administrative law is even more compelling.¹⁵⁵

C. *The Distributive Model and the Establishment Clause*

The argument for viewing the distributive model through the lens of administrative law is not only based on the positive correlation between the two. It is also supported by the fact that the Establishment Clause—the traditionally exclusive vehicle for judicial review of evolution instruction issues¹⁵⁶—is somewhat ill-equipped to perform that function with respect to the distributive model. The standards used by federal courts to analyze evolution instruction cases under the Establishment Clause depend upon identifying a religious purpose or effect within the statute or policy measure under review. The *Lemon* test, which is still the primary authority cited by courts in evolution instruction cases,¹⁵⁷ invalidates only those statutes with a solely sectarian purpose or a primary religious effect.¹⁵⁸ The legislative motiva-

¹⁵⁴ Delegation in this case is used to refer broadly to delegation of legislative as well as judicial authority to administrative actors. Further discussion of delegation in the distributive model is taken up in Part V.B.2, *infra*.

¹⁵⁵ Professor Bressman noted that the appellate court thought as much in *Whitman v. American Trucking Ass'ns*:

Judge Williams [in *Whitman*] seemed to acknowledge that the application of the nondelegation doctrine to invalidate a regulation and remand it to the agency was unconventional. . . . Although Congress ordinarily supplies the requisite principle, Judge Williams commented, the agency, in the exercise of its expert judgment, instead could limit its own discretion. This approach, he later observed, fits better with modern doctrines of deference to administrative decisions

Bressman, *Disciplining Delegation*, *supra* note 119, at 456–57.

¹⁵⁶ See discussion *supra* note 113 and accompanying text.

¹⁵⁷ *McCreary Cnty. v. ACLU of Ky.*, 545 U.S. 844 (2005) (declining to abandon the *Lemon* test as the primary doctrinal framework in applying the Establishment Clause); see also Pager, *supra* note 15, at 32 (describing the *Lemon* test as the “dominant framework for analyzing school-religion interactions under the First Amendment”). But see *id.* at 890 (Scalia, J., dissenting) (describing the *Lemon* test as “discredited”).

¹⁵⁸ See *Lemon v. Kurtzman*, 403 U.S. 602, 612–13 (1971) (holding that in order to survive Establishment Clause scrutiny, a statute must (1) have a secular purpose; (2) have a principle or primary effect that neither advances nor inhibits religion; and (3) not foster excessive government entanglement with religion).

The excessive entanglement prong of the *Lemon* test is not discussed further here for two reasons. First, it has been described by various members of the Court in recent opinions as being reduced to “an aspect of the inquiry into a statute’s effect,” *Agostini v. Felton*, 521 U.S. 203, 233 (1997), and as being “recast . . . as simply one criterion relevant to determining a statute’s effect.” *Mitchell v. Helms*, 530 U.S. 793, 807–08 (2000) (Thomas,

tion standard, which played a prominent role in balanced treatment cases,¹⁵⁹ depends upon a showing that lawmakers' primary purpose was to promote religion.¹⁶⁰ The endorsement test was the courts' preferred standard in more recent cases dealing with facially neutral evolution disclaimers and the intelligent design debate, and is thus the standard most likely to be applied in reviewing the distributive model.¹⁶¹ It prohibits statutes that create the appearance, in the eyes of a reasonable objective observer, of government endorsement of religion or favoritism toward religious believers.¹⁶² These standards are

J., writing for plurality). By that account, discussion of the effects prong of *Lemon* is sufficient. Second, even if excessive institutional entanglement with religion were still treated as dispositive under the *Lemon* test, the distributive model is too indeterminate to meet this standard. Because it says nothing on its face about religion and does not require that the state do anything with regard to evolution instruction, it is virtually impossible to depict the permissive language of the distributive model as entangling the state with anything, let alone doing so excessively and with respect to religion. Where unconstitutional entanglements have been found, they have frequently been in cases where religious institutions received government funding and conditions on receipt of government funds or compliance reviews associated with the granting of those funds resulted in intimate government involvement with a religious institution. See Stephen M. Feldman, *Divided We Fall: Religion, Politics, and the Lemon Entanglements Prong*, 7 FIRST AMEND. L. REV. 253, 269 (2009) ("Even in those first years after *Lemon* . . . administrative entanglement quickly assumed a position of prominence, as the justices focused on governmental surveillance and control over religious schools in a variety of public funding scenarios."). That is simply not the case with the distributive model.

159 See, e.g., *Edwards v. Aguillard*, 482 U.S. 578 (1987) (invalidating Louisiana's balanced treatment statute); *McLean v. Ark. Bd. of Educ.*, 529 F. Supp. 1255 (E.D. Ark. 1982) (invalidating Arkansas' balanced treatment statute).

160 See, e.g., *Edwards*, 482 U.S. at 587, 591–93 & nn.12–14 (citing in support of its decision to invalidate Louisiana's balanced treatment statute language in the legislative history indicating that the promotion of the biblical account of creationism was the motivating force behind the act); *McLean*, 529 F. Supp. at 1261, 1263 (invalidating balanced treatment statute because the statute was found to be part of a "religious crusade . . . motivated by [an] opposition to the theory of evolution and [a] desire to see [creationism] taught in the public schools").

161 *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707, 745 (M.D. Pa. 2005); *Selman v. Cobb Cnty. Sch. Dist.*, 390 F. Supp. 2d 1286 (N.D. Ga. 2005); see *Freiler v. Tangipahoa Parish Bd. of Educ.*, 975 F. Supp. 819 (E.D. La. 1997), *aff'd*, 185 F.3d 337 (5th Cir. 1999), *reh'g denied*, 201 F.3d 602 (5th Cir.), *cert. denied*, *Tangipahoa Parish Bd. of Educ. v. Freiler*, 530 U.S. 1251 (2000).

162 See, e.g., *Selman*, 390 F. Supp. 2d at 1305 (describing the endorsement test as prohibiting any statement that, when viewed by a reasonable observer who is familiar with the statement's historic and cultural context, conveys a message of government endorsement of religion (citing *Lynch v. Donnelly*, 465 U.S. 668 (1984))). But see Kristi L. Bowman, *Seeing Government Purpose Through the Objective Observer's Eyes: The Evolution-Intelligent Design Debates*, 29 HARV. J.L. & PUB. POL'Y 417, 461 (2006) (contending that the Supreme Court in *McCreary County* conflated the purpose and effects test of *Lemon* and "adopted the perspective of the reasonable observer to evaluate not only whether a statute or policy has the effect of creating an apparent endorsement of religion, but also whether that statute or policy was motivated by an impermissible government purpose").

not only substantively limited in their ability to deal with facially neutral, indeterminate policies like the distributive model,¹⁶³ but are unable to accommodate the breadth of political and constitutional issues that the model implicates.

Antievolutionist policies have become increasingly secular in their language and their stated purpose,¹⁶⁴ and the distributive model is no exception. In addition to remaining facially neutral with regard to religion, the model incorporates a lesson from recent evolution disclaimer cases of limiting its stated purpose and legislative history to discussions of scientific complexity and uncertainty.¹⁶⁵ Despite being supported by organizations that are veterans of antievolutionist politics and, in many cases, creationists,¹⁶⁶ the distributive model does not make any positive mention of religion¹⁶⁷ and in fact is careful to explain that its only motivation is to promote scientific integrity, not the

163 In a previous article, I argued that Establishment Clause doctrine is consistently under-inclusive, over-inclusive, or both in its treatment of facially neutral, indeterminate policies like the distributive model. See Virelli, *Making Lemonade*, *supra* note 115.

164 See *supra* Parts II.B, III. This is in large part the result of a series of judicial decisions invalidating policy measures advocated by evolution opponents. See discussion *supra* Part II.A. (describing the development of evolution instruction policy); see also Ravitch, *supra* note 12, at 852 (explaining that the Court's decision in *Epperson* "led to the 'creation science' movement," and "[a]s creationism begat creation science, creation science would soon beget a much more powerful offspring, Intelligent Design"); *id.* at 896 ("The form that the current [Intelligent Design] movement has taken is primarily a response to cases decided under the Establishment Clause.").

165 See, e.g., MODEL ACADEMIC FREEDOM STATUTE ON EVOLUTION, *supra* note 84, § 7 ("Nothing in this act shall be construed as promoting any religious doctrine, promoting discrimination for or against a particular set of religious beliefs, or promoting discrimination for or against religion or non-religion."); *Texas Improves on Strengths and Weaknesses Language in Science Standards on Teaching Evolution*, *supra* note 74 ("Texas now has the most progressive science standards on evolution in the entire nation Contrary to the claims of the evolution lobby, absolutely nothing the Board did promotes "creationism" or religion in the classroom. Groups that assert otherwise are lying, plain and simple." (quoting Dr. John West, Senior Fellow at the Discovery Institute)); Memorandum from Paul G. Pastorek, La. State Dep't of Educ., to City, Parish, and other Local Sch. Superintendents *et al.*, *supra* note 98 ("The legislative intent is explicitly stated that [the Louisiana Science Education Act] shall not be construed to promote any religious doctrine, promote discrimination for or against a particular set of religious beliefs, or promote discrimination for or against religion or non-religion.").

166 The model academic freedom bill is the work of the Discovery Institute's Center for Science and Culture. See MODEL ACADEMIC FREEDOM STATUTE ON EVOLUTION, *supra* note 84.

167 Indeed, the Model Statute explicitly states that "[n]othing in this act shall be construed as promoting any religious doctrine, promoting discrimination for or against a particular set of religious beliefs, or promoting discrimination for or against religion or non-religion." *Id.* § 7; see also Louisiana Science Education Act, LA. REV. STAT. ANN. § 17:285.1.D (2008) (stating that the Act "shall not be construed to promote any religious doctrine").

advancement of any religious doctrine.¹⁶⁸ Independent of whether the distributive model's claim of religious neutrality is sincere, the reality for reviewing courts is that facially neutral statutes—in particular those, like the distributive model, that are careful to maintain the appearance of neutrality not just in the final statutory or regulatory language but throughout all phases of the legislative process—present greater complications under the Establishment Clause than facially sectarian ones. As a result, the distributive model's omission of religious language from not only the text of the enactment but from any supporting discussion thereof helps distance the model from the reach of existing Establishment Clause doctrine.¹⁶⁹

A far greater problem than the distributive model's facial neutrality for reviewing courts under the Establishment Clause is the model's lack of determinacy. It is this lack of determinacy that represents the distributive model's greatest departure from previous antievolutionist policies regarding evolution instruction, including the facially neutral disclaimers in *Selman* and *Kitzmiller*. Unlike those disclaimers, which mandated how certain statements about evolution were to be presented to students, the distributive model is premised on being permissive; it facilitates local educators' ability to confront evolution questions at their own (presumably antievolutionist) discretion.¹⁷⁰ This approach further removes the distributive model from the range of analysis reasonably available under the Establishment Clause. Because the distributive model does not require a particular outcome in the treatment of evolution questions, it becomes exceedingly difficult

168 Even the distributive model's primary advocate, the Discovery Institute's Center for Science and Culture, has changed its publicly stated purpose for taking issue with evolution education. In 1999, the Discovery Institute's Center for Science and Culture produced a document outlining a five-year strategy for combating evolution instruction in which it described as its purpose "to reverse the stifling dominance of the materialist worldview [including evolution theory], and to replace it with a science consonant with Christian and theistic convictions." See DISCOVERY INST., *Wedge Strategy*, *supra* note 58, at 2. Ten years later, the same organization describes its mission as "encourag[ing] schools to improve science education by teaching students more fully about the theory of evolution, including the theory's scientific weaknesses as well as its strengths." DISCOVERY INST. CTR. SCI. & CULTURE, *supra* note 58.

169 See Virelli, *Making Lemonade*, *supra* note 115 (arguing that modern Establishment Clause doctrine cannot adequately accommodate facially neutral evolution instruction policies); Charles Kitcher, Note, *Lawful Design: A New Standard for Evaluating Establishment Clause Challenges to School Science Curricula*, 39 COLUM. J.L. & SOC. PROBS. 451, 492–93 (2006) (contending that "the best hope of passing constitutional muster . . . would be a curriculum measure that did not go beyond requiring a critical presentation of evolution").

170 See discussion *supra* note 80 and accompanying text (describing the importance to the distributive model of decision making by individual educators, rather than agencies such as school boards).

to ascribe any particular purpose or consequence to it or its drafters, let alone a religious one. It is likewise very hard to measure the model's overall effect on the community when its application in the classroom remains uncertain. Facial Establishment Clause challenges to the model will thus be difficult to sustain. Even as-applied challenges to the distributive model are problematic under the Establishment Clause, as the challenge of determining whether an individual educator introduced an alternative to evolution in the classroom for a religious or other purpose remains, at best, elusive. Unlike policy measures formulated on the record through a deliberative political process, the decisions of individual educators will likely not be accompanied by documented comments or arguments supporting a particular conclusion. Absent an admission by the educator that she was religiously motivated, the only sources of information for a court entertaining an as-applied Establishment Clause challenge to an educator's decision under the distributive model will be circumstantial evidence of motive, which is by definition difficult to decipher,¹⁷¹ or a hypothetical exercise in deductive reasoning to determine what conclusions a reasonable observer would make as to the decision's impact on the community.¹⁷² Beyond the fact that determining the objective impact of a decision on an entire community relies on a number of highly subjective factors such as defining the reasonable observer and the depth of information attributable to that observer,¹⁷³ the use of as-applied challenges to the distributive model is significantly more costly and time-consuming than a single facial challenge, making the Establishment Clause an even less attractive vehicle for plaintiffs challenging the policy on an as-applied basis.

171 See, e.g., *McLean v. Arkansas Bd. of Educ.*, 529 F. Supp. 1255 (E.D. Ark. 1982) (applying the legislative motivation standard to an issue of evolution instruction).

172 *Selman v. Cobb Cnty. Sch. Dist.*, 390 F. Supp. 2d 1286, 1306 (N.D. Ga. 2005) (applying the endorsement test to invalidate an evolution disclaimer because it conveyed the message that those who "oppose evolution for religious reasons . . . are favored members of the political community"). There is also the unlikely possibility that a student or some other witness will provide first-hand evidence of a teacher's motivations, for instance via taping (which would require a significant amount of foresight and planning on behalf of the witness) or testifying to specific statements made by the instructor that betray their reasons for introducing information critical of evolution in the classroom. Although perhaps more likely than a confession, the probability that a religiously motivated teacher would admit as much in the classroom is too small to render an Establishment Clause challenge an effective way to address potentially problematic policy decisions by individual educators.

173 See *Schuneman*, *supra* note 6, at 215–16 (noting inherent weaknesses of the endorsement test in dealing with evolution instruction issues); *Virelli, Making Lemonade*, *supra* note 115, at 443 & n.99 (outlining "the weaknesses in the endorsement test").

This is not to say that the Establishment Clause or, more specifically, the endorsement test is rendered obsolete or otherwise inapposite by the distributive model; courts are not likely to simply abandon their recent practice of applying the endorsement test in cases involving evolution instruction, and in certain factual circumstances (where, for example, a sectarian motivation is clearly evident in the model's legislative history) that approach could prove perfectly adequate for revealing constitutional infirmities. It is nevertheless important to note that the distributive model's approach to evolution instruction has the affect of muddying the relevant Establishment Clause analyses such that additional analytical tools for evaluating the model are needed.

As a consequence of evolution instruction policies becoming increasingly removed from an explicit conflict between evolution and creationism, courts attempting to evaluate those policies under the Establishment Clause have been forced to try and fit the square peg of facially neutral legislation defended on scientific grounds into the round holes of religious purpose and effect.¹⁷⁴ Although this dilemma has yet to persuade a court to uphold an antievolutionist measure,¹⁷⁵ it has created a situation where a dynamic and broadening area of public policy is being reviewed through a relatively static and narrow lens. Apart from whether religion is in fact the driving force behind the ongoing evolution instruction debate,¹⁷⁶ the political and legal contexts in which that debate is actually conducted are too broad to be treated as a single constitutional issue.¹⁷⁷

174 See discussion *supra* notes 163–169 and accompanying text.

175 See, e.g., Casey Luskin, *Does Challenging Darwin Create Constitutional Jeopardy? A Comprehensive Survey of Case Law Regarding the Teaching of Biological Origins*, 32 *HAMLIN L. REV.* 1, 5 (2009) (noting “that the courts have . . . ‘consistently supported the teaching of evolution’”).

176 See *supra* Part II (discussing the doctrinal history of the evolution instruction debate as focusing solely on the issue of religious establishment).

177 One possible approach would be to reconsider the scope of current Establishment Clause doctrine to accommodate concerns that even the distributive model is at its core the product of attempts by lawmakers to facilitate the presentation of religious theories of human origins in science classes. While this approach may certainly be worthwhile, and has been addressed in previous publications by the author, see Virelli, *Making Lemonade*, *supra* note 115, it is not mutually exclusive with the animating position for this Article, namely that the distributive model is better viewed in the context of administrative law principles.

V. NEW ISSUES UNDER THE DISTRIBUTIVE MODEL

After decades of legal battles waged on the familiar ground of the Establishment Clause, evolution instruction policy has diversified from straightforward conflicts about religion in public school classrooms. The new face of antievolutionist policy, the distributive model, is better analogized to a complicated regulatory regime than a legislative prescription. This is significant not only because it constitutes a sea-change in perspective on the evolution instruction debate, but also because it avoids the analytical brambles presented by efforts to confront questions relating to administrative law on purely religious grounds. Approaching the distributive model in its natural habitat as an administrative measure captures new and important political and legal issues at no expense to considerations of the Establishment Clause, whatever its continuing relevance.

A. *Political Legitimacy*

The first of these issues is the political legitimacy of the distributive model, both at the statutory/regulatory level where authority is transferred to individual educators to make decisions about what should be taught and in the classrooms where those decisions are actually made.¹⁷⁸ Political legitimacy depends on agencies and their

¹⁷⁸ At the statutory level, access to accurate and reliable technical information about the current scientific understanding of human origins is important to standard-setting; the very idea of encouraging educators to promote critical thinking about any scientific proposition can only be legitimate where a legitimate *scientific* critique is available, i.e., if a dispute about human origins exists that is grounded in a scientific discipline. Where reasonable scientists each employ the scientific method to reach distinct conclusions, then legislation or regulation relying on the existence of such a conflict can be considered—at least in terms of its scientific features—legitimate. By contrast, where policy positions based on presenting students with a scientific critique of evolution cannot be explained by reference to reliable scientific information advocating for such a policy, its legitimacy naturally falls into question. By the same token, the legitimacy of decisions by individual educators in individual classrooms depends on those educators having access to reliable scientific information in order to validate their specific decisions regarding how to promote critical thinking about evolution. Those decisions are rendered arbitrary, and thus illegitimate, where their critique fails to reflect sound science. Therefore, although the implications of these individual determinations being made in a politically illegitimate way are far less severe than those at the legislative, standard-setting level, the legitimacy of individual educators' policy making function must nonetheless also depend on the quality of the technical information informing those decisions. Due to the fact that political legitimacy in both the legislative and classroom contexts of the distributive model depends on the reliability of scientific information being used to support those policy decisions, a broader discussion of the model's political legitimacy is possible without continuing reference to these two distinct levels of policy making. This does not mean that the potential safeguards against illegitimate application of the distributive model do not vary

representatives providing reasoned explanations for their decisions.¹⁷⁹ In the case of the distributive model, the explanations provided in support are all based on claims of scientific uncertainty regarding the capacity of evolution to explain human origins.¹⁸⁰ Detractors suggest that no such uncertainty exists and that supporters' reliance on a scientific controversy is a pretext for inserting religious ideology into the classroom.¹⁸¹ Regardless of which side has the better of the debate, the dispute about the strength of the explanation for the distributive model invites a question about the model's political legitimacy that is distinct from whether it represents an unconstitutional establishment of religion.¹⁸²

This broad question about the distributive model's legitimacy can be subdivided into questions of how to determine whether the policy as it exists is legitimate and, if not, how to make it so. The foundational principles affecting administrative legitimacy are expertise, accountability, efficiency, and consistency.¹⁸³ Each is strongly impli-

based on whether the model's legislative or individual policy-making feature is at issue, but only that we may assume, for present purposes, that the political legitimacy of every application of the distributive model depends on the reliability of the scientific knowledge informing that process.

179 See Bressman, *Disciplining Delegation*, *supra* note 119, at 485 (“[Administrative law principles] require agencies in general to articulate a basis for their policy determinations and, in particular, to articulate the standards for those determinations.”); Cary Coglianese & Gary E. Marchant, *supra* note 119, at 1256 (“Administrative law aspires to bring reason to agency policymaking.”); see also Jerry L. Mashaw, *Small Things Like Reasons Are Put in a Jar: Reasons and Legitimacy in the Administrative State*, 70 *FORDHAM L. REV.* 17, 24 (2001).

180 See *supra* notes 85–86 and accompanying text.

181 See *supra* notes 97–107 and accompanying text.

182 If the scientific controversy explanation is found to be adequate to support the distributive model, there is still room to contend that the policy, although not necessarily designed solely to promote religion, could run afoul of another standard under the Establishment Clause, such as the endorsement test. See *Cnty. of Allegheny v. ACLU*, 492 U.S. 573, 597 (1989) (defining the endorsement test: “when evaluating the effect of government conduct under the Establishment Clause, we must ascertain whether ‘the challenged governmental action is sufficiently likely to be perceived by adherents of the controlling denominations as an endorsement, and by the nonadherents as a disapproval, of their individual religious choices.’” (quoting *Sch. Dist. v. Ball*, 473 U.S. 373, 390, (1985))). On the other hand, if the explanation is found to be inadequate to support the distributive model as a legitimate exercise of government power under the separation of powers, the question of establishment of religion is moot, but not resolved. In either event, an inquiry into the legitimacy of the distributive model is independent, and in no way exclusive, of Establishment Clause concerns.

183 See Jost Delbrück, *Exercising Public Authority Beyond the State: Transnational Democracy and/or Alternative Legitimation Strategies?*, 10 *IND. J. GLOBAL LEGAL STUD.* 29, 34 (2003) (“[W]e find several elements and criteria that are held to contribute to the legitimacy of the exercise of public authority. . . . [S]uch criteria are transparency and efficiency of government (or more broadly, public authority), and actions and accountability Finally, we

cated in policy environments like the distributive model where scientific issues are central to the policy's political justification. Agency expertise is necessary to make the scientific judgment about the reliability of evolutionary theory that drives the distributive model's policy outcome.¹⁸⁴ Accountability, which includes as a prerequisite transparency,¹⁸⁵ refers to the public's ability to retain control over its government by judging its representatives' performance in office.¹⁸⁶

may add expertise as a factor that can contribute to the acceptability of acts of public authorities.”); *see also* JERRY L. MASHAW, *DUE PROCESS IN THE ADMINISTRATIVE STATE* 102–103 (1985) (pointing to the courts' due process analysis after 1970 as promising “transparency, generality, and simplicity . . . it made the guarantee of due process a guarantee of accurate and cost-effective decision making”); CASS R. SUNSTEIN, *AFTER THE RIGHTS REVOLUTION: RECONCEIVING THE REGULATORY STATE* 242–44 (1990) (stating that “political accountability” is a foundational constitutional principle with regard to statutory interpretation); Harold J. Krent, *Reviewing Agency Action for Inconsistency with Prior Rules and Regulations*, 72 *CHI-KENT L. REV.* 1187, 1212 (1997) (“First, when agencies have limited their own discretion, review can help ensure that the agency treat similarly situated individuals equivalently, a fundamental principle of public law. Review for consistency furthers the ideal of agency legitimacy.”); Lessig & Sunstein, *supra* note 134, at 94 (“The Vesting Clause of Article II—by placing the executive in one rather than many presidents—embodied this judgment. It is therefore clear that the constitutional text and structure reflect commitments to the unitary virtues of coordination, accountability, and efficiency in government.”).

184 *Int'l Harvester Co. v. Ruckelshaus*, 478 F.2d 615, 652 (D.C. Cir. 1973) (Bazelon, C.J., concurring) (noting the existence of “cases of great technological complexity” in administrative law); Lessig & Sunstein, *supra* note 134, at 99–100 (“To be sure, many insist on technocratic rationality—on the importance of expertise in helping people to make informed judgments about the relations between means and ends. This is an enduring theme in administrative law. . . . [T]he absence of expertise, or the distortion of expert judgment through anecdote and interest-group power, is an important obstacle to a well-functioning system of regulatory law.” (citations omitted)). Although most pronounced in the technocratic model of administrative law that arose during the New Deal, *see* LANDIS, *supra* note 139, at 23 (“With the rise of regulation, the need for expertness became dominant . . .”); Rabin, *supra* note 139, at 1252 (“As in its initial phase, the New Deal continued its propensity to address particularized areas of unrest through regulation by experts . . .”), expertise remains a critical feature of any theory of administrative governance. Even public choice or “civic republican” theory, which relies on the resolution of competing interests and viewpoints rather than the opinions of particular experts to set policy, requires access to reliable information to better inform those interests and positions. *See generally* Croley, *supra* note 123; Seidenfeld, *supra* note 123, at 1512.

185 Molly Beutz, *Functional Democracy: Responding to Failures of Accountability*, 44 *HARV. INT'L L.J.* 387, 428 (2003) (describing transparency as a “precondition” to accountability and explaining that “[t]ransparency and access to information facilitate accountability because citizens need information to know when to hold which leaders accountable for what decisions”); Mark Fenster, *The Opacity Of Transparency*, 91 *IOWA L. REV.* 885, 899 (2006) (“The most significant consequences [of government transparency] flow from the public's increased ability to monitor government activity and hold officials . . . accountable for their actions.”).

186 Professor Bressman describes the principle of accountability as follows:

Perhaps the best understanding of accountability is not that it requires elected officials to make policy decisions simply because they are responsive to the people.

In order for the public to make that judgment in the administrative context, it must be privy to an administrative policy maker's explanations for their exercise of authority, and those explanations must be rational and well-informed. This is especially true where, as with the distributive model, the explanations are scientific in nature; technical explanations are more difficult for the lay public to evaluate on their own and thus must be accurate and reliable in order to foster true agency transparency and accountability. The efficiency principle acknowledges the importance of responsive, timely government.¹⁸⁷ This is important with respect to decisions based on scientific information because scientific inquiries are often complex and aimed at addressing time-sensitive issues of public policy.¹⁸⁸ It is especially so for education policies like the distributive model, which must be implemented so as not to interfere with the structure of individual classes or the academic calendar as a whole. Finally, consistency, the requirement that like cases be treated alike, is a fundamental feature of

Rather, it requires elected officials to make policy decisions because they are subject to the check of the people if they do not discharge their duties in a sufficiently public-regarding and otherwise rational, predictable, and fair manner. Thus, accountability can be understood to enable voters not only to consider whether elected officials have maximized popular preferences in making or executing the law, but also, and equally importantly, whether those officials have inappropriately favored narrow interests in doing so.

Bressman, *Beyond Accountability*, *supra* note 117, at 499 (citing Rebecca L. Brown, *Accountability, Liberty, and the Constitution*, 98 COLUM. L. REV. 531, 565–71 (1998)); *see also* SUNSTEIN, *supra* note 183, at 187 (“The principle of political accountability has an unmistakable foundation in Article I of the Constitution, and it is an overriding structural commitment of the document. The principle has foundations as well in assessments of institutional performance. At the same time, it operates to counteract characteristic failures in the regulatory process.”); Lessig & Sunstein, *supra* note 134, at 94 (“Accountability and avoidance of factionalism, then, are two central values of the framers’ original executive.”); *id.* at 119 (arguing that a unitary executive “fits well with important political and constitutional values, including the interests in political accountability”). *See generally* Steven G. Calabresi, *Some Normative Arguments for the Unitary Executive*, 48 ARK. L. REV. 23 (1995) (noting the constitutional importance of accountability). In administrative law, this typically involves voters expressing their dissatisfaction with elected officials who supported particular administrators.

187 Glen O. Robinson, *The Making of Administrative Policy: Another Look at Rulemaking and Adjudication and Administrative Procedure Reform*, 118 U. PA. L. REV. 485, 516 (1970) (“The goal of efficiency needs no explanation or defense. If it cannot be considered an ultimate concern of administrative law that tasks be accomplished with the minimum expenditure of time and resources, it is nevertheless a matter of large importance.”).

188 *See* SHEILA JASANOFF, *THE FIFTH BRANCH: SCIENCE ADVISERS AS POLICYMAKERS* 77–78 (1990); J.B. Ruhl & James Salzman, *In Defense of Regulatory Peer Review*, 84 WASH. U. L. REV. 1, 30–31 (2006) (“Indeed, the deadlines . . . frequently placed on agency decisionmaking acknowledge the pressing need in many cases to intervene on policy problems. Agencies already have difficulty meeting those deadlines . . .”).

rational decision making, impartiality, and fairness, and in turn is essential to administrative legitimacy.¹⁸⁹

Considered against the backdrop of these principles, the distributive model demonstrates significant weaknesses. The most obvious and oft-discussed is the problem of agency expertise. The overwhelming majority of current scientific experts support Darwinism as the only scientifically sound explanation of human origins,¹⁹⁰ and opponents of evolution instruction have yet to present an alternative to Darwinism that survives scrutiny under the scientific method.¹⁹¹ Re-

189 Professor Dotan described the impact of consistency on administrative legitimacy as follows:

The requirement of consistency . . . that like cases be treated alike—is fundamental both for bureaucratic decisionmaking and for legal systems at large. It has strong intuitive appeal to our sense of justice, and is intertwined with the notion of fairness. It is a due process value. It is fundamental to the notions of prompt administrative order, rationality in administrative decisionmaking, and impartiality in adjudicative proceedings. Under the idea of the rule of law, administrative decisions are expected to be made with reference to a system of clearly stated, previously established, and publicly promulgated set of legal rules and principles—in a fashion that preserves the coherence and predictability of the process of decisionmaking. Inconsistency in administrative decisionmaking (that is, where agencies fail to treat similar cases alike) defies the values of the rule of law. Such inconsistency may signal serious flaws in the administrative process and provide several grounds for judicial intervention to rectify such flaws. Inconsistent administrative decisions may point to improper motives on behalf of the decisionmaker, discriminatory bias in favor or against some participants, or, at the very least, a lack of proper management and coherent implementation of agency law. There is hardly any more suitable reason to label the administrative process as ‘arbitrary and capricious’ than in the case of a process that treats like cases differently. In addition, consistency in decisionmaking serves as a vital precondition for guaranteeing public faith in government. Finally, consistency in administrative decisionmaking is congruent with the need to protect reasonable expectations and reliance interests on behalf of the members of the public.

Yoav Dotan, *Making Consistency Consistent*, 57 ADMIN. L. REV. 995, 1000–01 (2005); see also Edward L. Rubin, *Due Process and the Administrative State*, 72 CAL. L. REV. 1044, 1105 (1984) (“Nothing leaves a state agent as much room for venality, hatred, caprice, or carelessness as the power to ignore the applicable rules.”).

190 Richard O’Grady, the Executive Director of the American Institute of Biological Sciences, made this point in a letter objecting to the Louisiana Science Education Act:

The scientific community has long ago reached consensus on evolution. Scientists from many fields of study agree that evolutionary processes are the accepted scientific explanation for the history and diversity of life on Earth. Evolution . . . developed through a rigorous scientific process Scientific scrutiny has not disproved the theory of evolution . . . it has strengthened and refined the theory

Letter from Richard O’Grady, PhD., Exec. Dir., Am. Inst. of Biological Scis. to Members of the Bd. of Elementary and Secondary Educ. (June 4, 2009), http://www.aibs.org/position-statements/20090604_aibs_submits_co_1.html; see Letter from Richard O’Grady, PhD., Exec. Dir., Am. Inst. of Biological Scis. to La. State Representatives, *supra* note 97 (“Supernatural explanations for [evolution] are not scientifically testable and are not science.”).

191 This is perhaps most evident in the policy move by antievolutionists from intelligent design to the distributive model, which focuses not on presenting alternatives *per se*, but in-

ardless of whether a scientific revolution is on the horizon, the scientific debate about human origins does not appear sufficiently robust in its current form to legitimize a policy decision based on encouraging students to confront that very debate in public school science classes.¹⁹²

With this expertise problem comes a corresponding accountability issue. By relying on the existence of a scientific controversy over evolution to support the distributive model, policy makers leave the lay public with little choice but to evaluate the merits of the decision on the policy makers' own scientific terms; the public must either accept that a scientific dispute about evolution exists or engage the scientific issue on their own. In neither case are policy makers accountable for their decision, as the public is forced to either accept at face value the existence of a scientific controversy involving evolution and, in turn, the legitimacy of the distributive model, or to engage in an independent scientific investigation of the matter that is likely beyond its technical competence.

In short, the political legitimacy of the distributive model depends in no small part on the accuracy and reliability of the scientific information and conclusions used to inform that policy decision.¹⁹³ This in turn raises questions about how to best promote scientific quality in decisions about science education. A widely-used and popular approach to dealing with scientific reliability issues related to policy making is the use of independent peer review.¹⁹⁴ Peer review involves the consideration by independent experts in the relevant

stead on introducing students to a wide range of views about evolution. *See* MODEL ACADEMIC FREEDOM STATUTE ON EVOLUTION, *supra* note 84, § 3 (providing that teachers in elementary and secondary schools "shall have the affirmative right and freedom to present scientific information pertaining to the full range of scientific views regarding biological and chemical evolution").

192 The analysis may very well be different where the controversy over evolution is presented in non-science classes, *see* Wexler, *supra* note 5, at 787, but that is not the goal of the distributive model or its supporters; the model is specifically targeted at finding ways to introduce uncertainty about evolution into science instruction. *See, e.g.*, Louisiana Science Education Act, LA. REV. STAT. ANN. § 17:285.1.B(1) (2008) (focusing on promoting critical thinking in science classes, in particular with regard to "scientific theories . . . including . . . evolution, the origins of life, global warming, and human cloning").

193 *See* Louis J. Virelli III, *Scientific Peer Review and Administrative Legitimacy*, 61 ADMIN. L. REV. 723, 754–56 (2009) [hereinafter Virelli, *Scientific Peer Review*] (discussing how reliable scientific information is crucial to ensuring the expertise necessary to foster legitimacy in agency policy decisions).

194 *See, e.g.*, U.S. GEN. ACCOUNTING OFFICE, GAO/RCED-99-99, FEDERAL RESEARCH: PEER REVIEW PRACTICES AT FEDERAL SCIENCE AGENCIES VARY 18–70 (1999) [hereinafter GAO PEER REVIEW REPORT] (describing varying peer review practices at twelve federal agencies); Jasanoff, *supra* note 188, at 84–180 (describing scientific advisory processes of the EPA and FDA).

field of the scientific “inputs” on which the policy—in this case the distributive model—is based.¹⁹⁵ In addition to questions of peer review’s general utility in this context, there are related issues of what form of peer review is best suited to promote scientific accuracy and reliability in evolution instruction policy.¹⁹⁶

In cases where the political position at issue was a decision by an individual educator as to how to approach the evolution debate in the classroom, questions of scientific reliability and accuracy are equally important, but the second-order issues of how to address the problem change. Rather than using scientific peer review to evaluate each individual decision by an educator, legitimacy issues at that level may necessitate additional policy measures requiring specific training either in the details of the scientific controversy, the legal limitations on classroom dialogue about topics like creationism, or both. Without these protective measures, scientific reliability and accuracy could suffer in ways that may bring the legitimacy of the entire distributive model into question.

In addition to problems centered on scientific reliability and accuracy, there are accountability concerns arising from the distributive model’s procedural regime that pose potential problems for its legitimacy. While the drafters of the model’s statutory or regulatory framework may be elected officials¹⁹⁷ who are operating under procedural requirements to ensure transparency and public participation in the drafting process, the final decision regarding how to teach the concept of human origins is left to individual teachers in individual classrooms.¹⁹⁸ The distributive model does not include any generally-

195 See, e.g., J.B. Ruhl, *Prescribing the Right Dose of Peer Review for the Endangered Species Act*, 83 NEB. L. REV. 398, 402 (2004) (“Peer review is generally described as a scientifically rigorous review and critique of a study’s methods, results, and findings that is conducted by others in the relevant field who have the requisite training and expertise, who have no pecuniary or other disqualifying bias with respect to the topic, and who are independent of the persons who performed the study.”); see also GAO PEER REVIEW REPORT 4 (explaining that although there is “no written definition of peer review that applies across the federal government . . . all of the agencies’ definitions . . . contained the fundamental concept of a review of technical or scientific merit by individuals with sufficient technical competence and no unresolved conflict of interest.”).

196 Even where peer review programs exist to support science education policy, questions of *how* peer review should be employed remain highly relevant to the broader question of the policy’s political legitimacy. See generally Virelli, *Scientific Peer Review*, *supra* note 193.

197 See ASIMOW & LEVIN, *supra* note 118, at 373 (explaining that some state constitutions expressly create administrative agencies or allow for the direct election of administrators).

198 See, e.g., Louisiana Science Education Act, LA. REV. STAT. ANN. § 17:285.1.B(1), (2) (2008) (stating that the State Board of Education “shall *allow and assist* teachers . . . to create and foster an environment . . . that promotes critical thinking . . . of scientific theories,” including offering “support and guidance” for those efforts (emphasis added)).

applicable guidelines for how teachers should approach the topic of evolution instruction, and for reasons motivated by judicial treatments of previous evolution instruction policies under the Establishment Clause, such generally-applicable statements by lawmakers are no longer considered a viable part of antievolutionist policy.¹⁹⁹

The result is that the accountability of policy makers under the distributive model is lacking in two ways. The first is their public accountability prior to making a decision about evolution instruction. Even before confronting an evolution issue in the classroom, the principle of accountability requires that the inputs of educators into the policy-making process be transparent to the public. These inputs would include whatever sources of information and knowledge each individual educator may have that is germane to their decision making regarding evolution instruction. Under the distributive model, however, teacher training and knowledge relevant to the problem is, at best, unclear. Public training programs will almost certainly not be available, as they would run afoul of the very purpose of the distributive model—to enable criticism of evolutionary theory within public school science classes without taking any specific position as to how human origins must or should be taught.²⁰⁰ Without such training, any representations about teachers' personal understanding of the relevant legal issues should be viewed skeptically. It is unrealistic to think that elementary and secondary education science teachers can become experts in the constitutional issues surrounding evolution instruction even with, let alone without, some measure of formal training in the area. As a result, pre-decisional accountability is lacking from the distributive model.

Post-decisional accountability is no more prevalent. Decisions about how to treat the controversy over evolution instruction are made on an ad hoc basis under the distributive model by educators who are not obligated to record or report their decisions and whose only audience is a classroom of children. Although a particularly diligent constituency could seek ways to make a classroom more open to the public, or at least to the students' guardians, there are no guarantees that this approach would provide an accurate or adequate account of classroom conduct, nor is it without negative educational consequences. Relying on the diligence of the local community

199 See discussion *supra* Part II (describing the movement in antievolutionist policy away from legislative proscriptions regarding evolution in response to federal court rulings invalidating these policy measures under the Establishment Clause); see also discussion *supra* note 111 and accompanying text.

200 See discussion *supra* Part II.

without government mandates supporting transparency is not only unreliable as a means of classroom monitoring, but may lead to negative pedagogical consequences that either diminish or outweigh the benefits of teachers being made more accountable. In sum, accountability is a problem under the distributive model and is only made readily apparent by viewing evolution instruction as a challenge to be addressed by reference to administrative law principles.

The third consideration pertaining to political legitimacy, efficiency, is less of a concern for the distributive model, but may still prove problematic. By empowering individual educators to make decisions about evolution instruction in real time, the distributive model is potentially as efficient as fact-specific policy making could conceivably be. To the extent each issue pertaining to the teaching of evolution that arises in a science classroom is unique, then transferring authority to decision makers who are intimately familiar with the issue is a highly efficient way to address the problem. Where issues begin to recur, however, inconsistent decisions could create problems for the efficient operation of the entire policy-making regime. Inconsistent results could lead to confusion among the teachers as well as information contamination from students across classrooms that could frustrate the educational effectiveness of not only the model, but of the science class as a whole.²⁰¹ Where the distributive model threatens its own consistency, it likewise threatens its ability to function efficiently and, in turn, legitimately.

Consistent decision making within the distributive model is a foundational feature of its legitimacy independent from its effect on administrative efficiency.²⁰² Absent some attempt to unify educators' approach to deciding questions of evolution instruction—an approach that the distributive model seeks to avoid for constitutional reasons²⁰³—there are no safeguards within the distributive model to ensure even a threshold level of consistency in those decisions. The

201 Intra-classroom uniformity is preferred because the prospect of some students in a classroom being taught something substantively different about human origins than other students in the same classroom could lead, at a minimum, to a pedagogically absurd result.

202 See Dotan, *supra* note 189, at 1000–01 (describing the impact of consistency on administrative legitimacy); Krent, *supra* note 183, at 1212 (“First, when agencies have limited their own discretion, review can help ensure that the agency treat similarly situated individuals equivalently, a fundamental principle of public law. Review for consistency furthers the ideal of agency legitimacy.”).

203 See discussion *supra* Part II (describing the movement in antievolutionist policy away from explicit treatment of religion in response to federal court rulings invalidating these policy measures under the Establishment Clause); see also discussion *supra* note 111 and accompanying text.

distributive model is premised on the transfer of authority over evolution instruction directly to the classroom level, without any guiding principle beyond the desire to promote “critical thinking” about the sciences.²⁰⁴ Unless a rational (i.e., legitimizing) explanation can be provided for why a potentially random series of pedagogical choices is desirable, a lack of decisional consistency threatens the model’s viability.

These potential difficulties with the political legitimacy of the distributive model highlight the importance of adopting an administrative perspective in evaluating the model. The application of administrative law principles increases the likelihood that questions of legitimacy will be included within the analysis of the distributive model in the first instance, and provides a useful platform from which to guide the development of evolution education policy as it moves beyond the blunt approach of Establishment Clause challenges.

B. Additional Questions

There are a number of other important issues triggered by the decision to view the distributive model in light of administrative law principles. Although none of these is as foundational as the question of political legitimacy, each provides fuel for future discussion grounded in the understanding that the distributive model cannot be adequately evaluated, as its predecessors were, solely under the Establishment Clause.

1. Judicial Review

Viewing the distributive model from an administrative vantage point raises important questions about its treatment in the courts. Administrative pronouncements are subject to a complex system of judicial review in which agency determinations of law, fact, and policy

²⁰⁴ See, e.g., Louisiana Science Education Act, LA. REV. STAT. ANN. § 17:285.1.B(1), (2) (2008) (stating that the State Board of Education “shall *allow and assist* teachers . . . to create and foster an environment . . . that promotes critical thinking . . . of scientific theories,” including offering “support and guidance” for those efforts (emphasis added)); see also *supra* note 80 (discussing the importance of individual teachers, rather than administrative entities such as school boards, acting as policy makers under the distributive model).

are all subject to standards of review that are potentially different from one another and from their counterparts in Article III courts.²⁰⁵

The most important of these standards for the distributive model is the arbitrary and capricious (or abuse of discretion) standard.²⁰⁶ The distributive model's most controversial feature is its grant of power to individual teachers to exercise their discretion in promoting critical thinking about the sciences. More precisely, the features of the distributive model most likely to be challenged are the higher-level statutory or regulatory decisions to promote critical thinking about evolution in science classes and the second-order decisions of individual teachers as to how to achieve that goal in the classroom. Neither of these determinations will likely raise purely legal issues (other than Establishment Clause challenges, which are subject to *de novo* review),²⁰⁷ as the model's statutory or regulatory framework gives teachers wide latitude to promote critical thinking about evolution.²⁰⁸

205 See *supra* note 122 and accompanying text. But see David Zaring, *Reasonable Agencies*, 96 VA. L. REV. 135 (2010) (arguing that judicial review of administrative actions is better described and performed through a reasonableness standard).

206 ASIMOW & LEVIN, *supra* note 118, at 567 (describing the arbitrary and capricious and abuse of discretion standards as “interchangeable”); see *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971) (“Section 706(2)(A) requires a finding that the actual choice made was not ‘arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.’ To make this finding the court must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment.” (citation omitted)); see also 5 U.S.C. § 706 (2006) (originally enacted as Administrative Procedure Act of 1946, ch. 324, 60 Stat. 237) (describing the standards of review under the federal Administrative Procedure Act); MODEL STATE ADMIN. PROCEDURE ACT § 15 (“The court may reverse or modify the decision [of the agency] if . . . the administrative findings, inferences, conclusions, or decisions are . . . arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion.”). “[T]he [administrative procedure] acts of most states are based on the 1961 MSAPA.” Bonfield, *supra* note 149, at 123 n. 5.

207 See, e.g., 5 U.S.C. § 706(2)(B) (requiring courts to overturn “agency action, findings, and conclusions found to be—contrary to constitutional right, power, privilege, or immunity”).

208 In cases where a student does challenge either the regulatory structure of the distributive model as outside its statutory mandate or a decision by an individual teacher on the grounds that it is not permitted by the governing statute or regulation, different questions of judicial review may arise. See, e.g., *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984) (outlining a two-step test for judicial review of an agency's interpretation of its enabling statute in a rulemaking proceeding); ASIMOW & LEVIN, *supra* note 118, at 526–27 (providing an overview of state law dealing with judicial review of agency interpretations of statutes, and stating that most states employ a less deferential approach to administrative interpretations of statutes than was prescribed for federal courts in *Chevron*); see also *United States v. Mead Corp.*, 533 U.S. 218 (2001) (addressing the question of judicial review of an agency's interpretation of a statute in the context of an informal adjudication); *Auer v. Robbins*, 519 U.S. 452 (1997) (holding that an agency's interpretation of its own regulation in an informal adjudication deserves judicial deference).

Regardless of whether they are treated as factual or policy-related, each of these determinations is subject to arbitrary and capricious review.²⁰⁹ As a result, the distributive model will most likely be challenged on grounds that require judicial scrutiny under the arbitrary or capricious standard.²¹⁰

The impact of arbitrary and capricious review on the distributive model could be felt on at least two levels. First is the consideration of the model's broader policy objective of promoting critical thinking about evolution in science classes.²¹¹ As an initial matter, where this broader statement takes the form of a statute, arbitrary and capricious review will likely not apply, as legislative policy choices are tradi-

²⁰⁹ The arbitrary and capricious standard may be applied to review agency findings of fact in informal proceedings, *see* Motor Vehicle Mfrs. Ass'n of U.S. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29 (1983) (reviewing a regulation promulgated by informal rulemaking procedures under the arbitrary and capricious standard), and is largely indistinguishable from the substantial evidence standard used to review fact finding in formal adjudications. *See also* Ass'n of Data Processing Serv. Orgs. v. Bd. of Governors of the Fed. Reserve Sys., 745 F.2d 677 (D.C. Cir. 1984) (downplaying the distinction between "substantial evidence" and "arbitrary and capricious" review of agency fact-finding); ASIMOW & LEVIN, *supra* note 118, at 567. In the case of the distributive model, then, the arbitrary and capricious standard is most significant because it applies not only to policy determinations associated with the model, but to challenges based on fact finding by the agency in drafting the model's regulatory framework.

²¹⁰ Arbitrary and capricious review may not be the only standard, however, that will impact the distributive model. As discussed *supra* at note 208, different questions of judicial review may arise, for example, in cases where a student challenges either the regulatory structure of the distributive model as outside its statutory mandate, or a decision by an individual teacher on the grounds that it is not permitted by the governing statute or regulation. Moreover, there is a remote possibility that an individual teacher's authority under the distributive model could be interpreted to be so broadly discretionary as to lie outside the realm of judicial review altogether. *See* 5 U.S.C. § 701(2) (exempting from judicial review agency actions "committed to agency discretion by law"). *But see* Webster v. Doe, 486 U.S. 592, 600 (1988) (explaining that agency administrative action is only unreviewable on the basis that it has been committed to agency discretion where the "statute is drawn [so that a] court would have no meaningful standard against which to judge the agency's exercise of discretion"); ASIMOW & LEVIN, *supra* note 118, at 634 (describing state law on whether a decision is committed to agency discretion as reflecting "many of the same tensions that appear in federal cases"). In the case of the distributive model, the stated purpose to promote critical thinking, although a broad grant of discretion, is not so subjective as to be immune from meaningful judicial review.

Regardless of the precise standards that would apply in every conceivable challenge to the distributive model, it is sufficient for purposes of this discussion to highlight two facts pertaining to the distributive model and judicial review. First is that policy and/or factual decisions by administrators and individual teachers under the model are likely to be subject to arbitrary and capricious review. Second is that judicial review presents important issues for the distributive model, and that these important questions of judicial review are only made apparent when the model is considered in connection with principles of administrative law.

²¹¹ *See, e.g.*, Louisiana Science Education Act, LA. REV. STAT. ANN. § 17:285.1.B(1), (2) (2008).

tionally not subject to judicial review.²¹² Where the same statement originates or, as in Louisiana, is essentially duplicated in an administrative regulation,²¹³ judicial review as understood in the administrative context—including arbitrary and capricious review—applies.²¹⁴ In those cases, although still not likely to run afoul of the arbitrary and capricious standard, it is possible that a reviewing court could conclude that the current state of scientific thought is not adequately balanced on both sides of the evolution debate to justify the promotion of “critical thinking” about the subject at the elementary and secondary education levels.²¹⁵

212 See, e.g., John F. Duffy, *Administrative Common Law in Judicial Review*, 77 TEX. L. REV. 113, 116 (1998) (“[A]t least under classical schools of interpretation, courts deciding statutory cases are bound to follow commands and policies embodied in the enacted text—commands and policies that the courts did not create and cannot change.”); Frank H. Easterbrook, *The Supreme Court 1983 Term—Foreword: The Court and the Economic System*, 98 HARV. L. REV. 4, 60 (1984) (“Judges must be honest agents of the political branches. They carry out decisions they do not make.”); Cass R. Sunstein, *Interpreting Statutes in the Regulatory State*, 103 HARV. L. REV. 405, 415 (1989) (“According to the most prominent conception of the role of the courts in statutory construction, judges are agents or servants of the legislature. . . . The judicial task is to discern and apply a judgment made by others, most notably the legislature.”).

213 See Bulletin 741-Louisiana Handbook for School Administrators, Curriculum and Instruction, Science Education, 35:8 La. Reg. 1476 (Aug. 20, 2009).

214 As discussed *supra* note 210, review of a regulation employing the higher-level policy statements of the distributive model will also be available for its compliance with the statutory mandate that empowered the rulemaking in the first place. As an initial matter, this is a very different question on judicial review than the question of whether the policy decision to encourage critical thinking about evolution is arbitrary and capricious; the issue of whether the agency enacted a rule within its statutory mandate depends on the specific language of the statute as well as the reasonableness of the agency’s interpretation of the statutory language. See, e.g., *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984). Moreover, as a practical matter, in instances in which the distributive model has originated as a statute—like Louisiana’s Science Education Act, for instance—the language of the statute and regulation have been nearly identical, thereby making clear that the regulation is within statutory boundaries. See 35:8 La. Reg. 1476.

215 This represents an additional, but slightly different, evaluation of the scientific underpinnings of evolution than that employed in the analysis of the distributive model’s political legitimacy. See discussion *supra* Part V.A.

It is far less objectionable to focus on scientific debates that may, like evolution, appear one-sided with more sophisticated audiences at, for example, the collegiate or graduate level. But where elementary and secondary school students are involved, there is a strong argument for avoiding discussions of controversies outside the scientific mainstream for fear of confusing students without the educational tools or experience to process conflicting information. A study of critical thinking among college and graduate students indicates a similar conclusion with regard to post-secondary students, let alone elementary and high school students:

The college seniors . . . did not consistently base their arguments on evidence and did not demonstrate an understanding of the role of evidence in making interpretations and judgments. Their . . . assumption [was] that because there are many possible answers to every question and no absolutely certain way to adjudicate between competing answers, knowledge claims are simply idiosyncratic to the indi-

A far greater potential problem created by arbitrary and capricious review of the distributive model is the impact of judicial scrutiny on the model's choice to empower individual educators in individual classrooms to make decisions regarding how to teach evolution.²¹⁶ While there is nothing inherently arbitrary or capricious about these decisions, it is unlikely that there will be any administrative record or other documentation supporting each individual educator's determination, thereby making such decisions increasingly vulnerable to arbitrariness review.²¹⁷ Moreover, the sheer magnitude and variety of these decisions invites significant intrusion by the judiciary into the daily operations of public school science classes. This intrusion could not only cause profound confusion among teachers and students, but may also prove to have little benefit to the participants, as students who have been exposed to an unprincipled account of the scientific underpinnings of human origins may or may not be present to experience the effects of a judicial remedy. Finally, from a wider political perspective, the threat of legal challenges to specific decisions may cause teachers to refrain from pursuing the model's mandate altogether. In short, viewing the distributive model as an administrative enactment reveals issues pertaining to judicial review of the model that are important to its effectiveness and viability, and that are not readily apparent when the model is perceived solely in the Establishment Clause context.

2. *Delegation*

Delegation is a concept that is most prevalent in administrative law, but is founded on constitutional concerns. In order to accom-

vidual. In other words, an answer to an ill-structured problem is seen as merely an opinion. . . . The graduate students . . . also fell short The logic at this stage is that different perspectives (e.g., different academic disciplines) have different rules of inquiry and thus yield different but equally legitimate interpretations. Beliefs are strictly relative to a particular perspective. Students holding these assumptions often cannot identify criteria by which to judge one interpretation as being more adequate or useful than another.

Patricia M. King et al., *Critical Thinking Among College and Graduate Students*, 13 REV. OF HIGHER EDUC. 167, 179 (1990).

216 See discussion *supra* note 80 (explaining why the distributive model shifts policy-making authority to individual teachers rather than, for example, administrative agencies like school boards).

217 See, e.g., *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 420 (1971) (concluding that arbitrariness review required judicial consideration of the "full administrative record" before the agency at the time of its decision, and that if the "bare record" did not "disclose the factors that were considered" by the agency in rendering its decision, "it may be necessary for the District Court to require some explanation").

moderate the expansion of administrative government, courts on both the state and federal level have developed delegation doctrines designed to set standards for determining when a transfer of power from a constitutionally-mandated branch of government to an administrative agency exceeds the boundaries set by the principle of separation of powers.²¹⁸ This is an important question for the distributive model because one of its most powerful policy features—and a strong source of its appeal to antievolutionists²¹⁹—is derived from its delegation of policy-making authority from legislators or traditional regulators to individual educators.

To the extent that the model delegates primarily adjudicative²²⁰ power to public school teachers, it raises questions about whether those teachers' decisions about evolution instruction must be brought, as a constitutional matter, in the courts. Because the current form of the distributive model employs informal adjudication, rather than trial-like adversarial proceedings to set evolution instruction policy,²²¹ neither federal nor state law in the area points to a serious concern about the delegation of judicial power.²²²

If the distributive model is treated as a legislative delegation,²²³ a different analysis is required. At the federal level, the legislative non-delegation doctrine has been interpreted exceedingly broadly, permitting delegations to agencies in every instance in which Congress has articulated an “intelligible principle” to guide those agencies in exercising their newly-acquired discretion.²²⁴ The Court has applied the intelligible principle standard equally broadly, causing some to

218 See ASIMOW & LEVIN, *supra* note 118, at 374 (“The [legislative] nondelegation doctrine invokes both separation of powers and checks and balances arguments.”). Some state constitutions expressly create administrative agencies or allow for the direct election of administrators. In these instances, delegation is far less of a concern, if at all. See *id.* at 373.

219 See discussion *supra* note 80 (explaining the importance to the distributive model of using individual teachers as policy makers).

220 For a discussion of the adjudicative and regulatory features of the distributive model, see *supra* notes 145–50 and accompanying text.

221 See discussion *supra* notes 145–50 and accompanying text (discussing the adjudicative features of the distributive model).

222 See, e.g., *Commodity Futures Trading Comm’n v. Schor*, 478 U.S. 833, 834–35 (1986) (outlining the relevant factors in evaluating whether agency adjudication unconstitutionally interferes with the operation of the federal courts); ASIMOW & LEVIN, *supra* note 118, at 404 (addressing state law doctrine of adjudicative delegation).

223 See discussion *supra* notes 145–50 and accompanying text.

224 See, e.g., *Whitman v. Am. Trucking Ass’ns*, 531 U.S. 457, 458 (2000) (applying the intelligible principle standard to uphold an air quality standard promulgated by the EPA against a delegation challenge).

describe the federal delegation doctrine as virtually a dead letter.²²⁵ Individual states, however, have been much more restrictive in permitting legislative delegation.²²⁶ While the distributive model's stated goal of promoting critical thinking appears adequate to meet the federal standard, the model is much more likely to be enacted at the state level, where the wider variation of standards and attitudes about delegation increases the possibility that legitimate questions will arise concerning the model's delegation of power.

Even if the distributive model does not run afoul of existing state or federal delegation doctrine, delegation offers a unique and useful window into the distributive model. In a case like the distributive model where delegation is such a critical feature of the policy, it is useful to maintain a perspective that encourages the ongoing consideration of the role that delegation plays in the model. Perhaps even more important, however, is the fact that continuing to focus on the distributive model's delegation of power to individual educators highlights still more important questions that may otherwise have been overlooked.

a. Procedural Due Process

The distributive model's delegation of authority to individual teachers sheds light on the possible relevance of another constitutional issue—whether students' and/or parents' procedural due

225 See David Schoenbrod, *Politics and the Principle That Elected Legislators Should Make the Laws*, 26 HARV. J.L. & PUB. POL'Y 239, 249 (2003) (describing *Whitman v. American Trucking Ass'n* as "seeming to forswear any intention to block delegation to administrative agencies"); *id.* at 250 ("One way to read the modern delegation cases is that the delegation doctrine is now only a ghost."); see also *Nat'l Broad. Co. v. United States*, 319 U.S. 190, 192 (1943) (holding that the Communications Act of 1934 was not an unconstitutional delegation of legislative authority because its instructions to the Federal Communications Commission to act in the "public interest, convenience, or necessity" constituted a constitutional intelligible principle); Richard W. Murphy, *Separation Of Powers and the Horizontal Force of Precedent*, 78 NOTRE DAME L. REV. 1075, 1083 (2003) ("The courts have . . . ceded almost plenary authority to Congress to delegate as much discretionary power as it sees fit. The nondelegation doctrine's current, dead-letter form suggests that it would be almost impossible for Congress to grant the courts an unconstitutional amount of power . . ." (citation omitted)).

226 See Gary J. Greco, *Standards or Safeguards: A Survey of the Delegation Doctrine in the States*, 8 ADMIN. L.J. AM. U. 567, 578 (1994) ("The state supreme courts historically have used the delegation doctrine to a greater extent than the U.S. Supreme Court to strike down legislative delegations of power. Traditionally, while the federal government almost always has found broad delegations constitutional, the state courts have upheld broad delegations of power more reluctantly." (citations omitted)); see also ASIMOW & LEVIN, *supra* note 118, at 391 ("The nondelegation doctrine has much greater practical significance at the state level than at the federal level.").

process rights have been violated by an educator's decision to present information that is critical of, or constitutes an alternative to, evolution.²²⁷ The distributive model is at least potentially understood as an adjudicative policy-making regime;²²⁸ it empowers individual educators to make contemporaneous decisions about what it means to think critically about evolution and how to introduce students to this critical approach.²²⁹

This adjudicative feature of the model implicates procedural due process protections—the right to be notified and heard before being deprived of a constitutionally-protected interest²³⁰—that do not exist in a legislative or rule-making context.²³¹ The Court in *Mathews v. Eldridge*²³² articulated a three-part test for determining whether procedural due process requirements are met. The *Mathews* test weighs the individual's protected interest against the risk of erroneous deprivation of that interest and the government's interest in maintaining the existing procedural regime.²³³ Under that test, the distributive model appears to trigger some significant due process concerns. For example, any decision by a teacher to engage the evolution debate by reference to the biblical or any other religiously-based explanation of human origins could trigger the students' First Amendment liberty interest in being free from government establishment of religion.²³⁴

227 This issue was addressed in greater detail in an earlier publication by the author. See Louis J. Virelli III, *Evolutionary Due Process*, 104 NW. U. L. REV. COLLOQUY 251 (2010), <http://www.law.northwestern.edu/lawreview/colloquy/2010/2/LRColl2010n2Virelli.pdf>.

228 For a more detailed explanation of the distributive model's adjudicative features, see *supra* notes 145–50 and accompanying text.

229 See *supra* Part III (describing the distributive model).

230 “For more than a century the central meaning of procedural due process has been clear: ‘Parties whose rights are to be affected are entitled to be heard; and in order that they may enjoy that right they must first be notified.’” *Fuentes v. Shevin*, 407 U.S. 67, 80 (1972) (quoting *Baldwin v. Hale*, 68 U.S. (1 Wall.) 223, 233 (1863)).

231 See *Bi-Metallic Inv. Co. v. State Bd. of Equalization*, 239 U.S. 441, 446 (1915) (distinguishing between legislative conduct and that in which a “relatively small number of persons was concerned, who were exceptionally affected, in each case upon individual grounds, and it was held that they had a right to hearing.”).

232 424 U.S. 319 (1976).

233 See *id.*

234 See, e.g., *Ingraham v. Wright*, 430 U.S. 651, 672 (1977) (defining a “liberty interest” under procedural due process as, *inter alia*, any “interest within the protection of the Fourteenth Amendment”); *Everson v. Board of Educ.*, 330 U.S. 1 (1947) (incorporating the Establishment Clause into the Due Process Clause of the 14th Amendment). It is important to remember that the presence of a constitutionally-protected interest does not mean that a constitutional violation has occurred. As discussed *supra* Part IV.C, the facially-neutral and indeterminate nature of the distributive model renders it more difficult to evaluate (and thus invalidate) under the Establishment Clause. That does not mean, however, that Establishment Clause challenges to the distributive model or its implementation by

Moreover, when the decision as to how to engage the evolution debate is made by individual teachers, the risk of erroneous deprivation of that interest is significant; individuals who are untrained in the Constitution and are asked to make contemporaneous decisions about how to address questions of evolution instruction are highly likely to overstep their constitutional bounds without the presence of procedural protections.²³⁵ Finally, the government has little if any interest in allowing these decisions to be made without any process.²³⁶ The distributive model is generally silent with regard to how a student or parent may pursue an Establishment Clause challenge to an educator's approach to evolution instruction,²³⁷ and there is no obvious reason why such decisions must be made quickly and without prior deliberation. Delaying a teacher's treatment of the evolution debate may be inconvenient in terms of the lesson plan for that class and may pose additional administrative costs,²³⁸ but when weighed against the students' liberty interests and the high probability that those interests will be threatened without additional process, at least some opportunity for pre-decisional legal process in the form of notice and a hearing is constitutionally required.

The likelihood of success of due process challenges to educational decisions under the distributive model, in conjunction with the facts that such challenges are available to students every time an educator chooses to engage the evolution debate and that even a successful defense does not insulate a school or educator against a subsequent Es-

individual educators will cease, nor does it say anything about whether those challenges—meritorious or not—are constitutionally entitled to some measure of process beyond what the school or school district has already made available.

²³⁵ See, e.g., *Mathews*, 424 U.S. at 343 (“Central to the evaluation of any administrative process is the nature of the relevant inquiry.”); *id.* at 343–44 (finding additional procedural protections necessary where “a wide variety of information may be deemed relevant, and issues of witness credibility and veracity often are critical to the decisionmaking process”).

²³⁶ See *Cleveland Bd. of Educ. v. Loudermill*, 470 U.S. 532, 542 (1985) (“An essential principle of due process is that a deprivation of life, liberty, or property ‘be preceded by notice and opportunity for hearing appropriate to the nature of the case.’” (quoting *Mul-lane v. Cent. Hanover Bank & Trust Co.*, 339 U.S. 306, 313 (1950))).

²³⁷ The regulations accompanying the Louisiana Science Education Act make some provisions for challenging the use of supplemental materials by science teachers, but are silent with regard to what process is available for students or parents challenging a teacher's classroom presentation about evolution. Bulletin 741-Louisiana Handbook for School Administrators, Curriculum and Instruction, Science Education, 35:8 La. Reg. 1477 (Aug. 20, 2009) (outlining procedures by which “[a]ny Louisiana citizen may challenge [supplemental] materials used” to teach about human origins).

²³⁸ See, e.g., *Mathews*, 424 U.S. at 347 (“In striking the appropriate due process balance the final factor to be assessed is the public interest. This includes the administrative burden and other societal costs that would be associated with requiring, as a matter of constitutional right, [additional procedures].”).

establishment Clause or other substantive action, may deter educators from engaging in a scientific critique of evolution where the possibility of only a substantive challenge would not. At minimum, acknowledging the distributive model's relationship with administrative law principles is significant because it highlights the importance of the model's delegation of decisional authority to individual educators, which in turn exposes the specter of procedural due process challenges to the exercise of that authority.

b. Municipal Liability and Qualified Immunity

The delegation of policy-making in the distributive model could also have consequences in civil rights suits against individual educators and school boards relating to the teaching of evolution. Because the distributive model delegates policy-making authority to individual teachers in individual classrooms, as opposed to school boards or legislatures,²³⁹ the model could place teachers and their municipal employers in an unusual and potentially detrimental position. Government officials generally retain qualified immunity in suits against them (personally or in their official capacity) for damages.²⁴⁰ Qualified immunity applies where an official did not violate any "clearly established statutory or constitutional rights of which a reasonable person would have known."²⁴¹ There is no reason to believe that the standard or its application to individual teachers will change based on whether the teacher is acting under the distributive model or some other evolution instruction policy; if a teacher violates a student's rights under the Establishment Clause, she runs the risk of being liable to that student for equitable relief and damages, regardless of the educational policy regime they are operating within.

²³⁹ See discussion *supra* note 80 (explaining the importance to the distributive model of using individual teachers as policy makers).

²⁴⁰ Injunctive relief is also available in these cases and, in many instances, may be a more common remedy for Establishment Clause violations, but damages are nonetheless a viable remedy under § 1983, *see, e.g.,* *Pierce ex rel. Pierce v. Sullivan* W. Cent. Sch. Dist., 379 F.3d 56 (2d Cir. 2004) (deciding claim for damages under 42 U.S.C. § 1983 for alleged Establishment Clause violations), and are a more compelling topic for discussion in relation to the distributive model. In cases under the distributive model, where the violation takes the form of a specific decision by an individual teacher, the value of injunctive relief may be seriously compromised; once a teacher has engaged in certain conduct, an order preventing her from repeating that conduct does little to erase existing damage. For that reason, and because damage claims are more limited in § 1983 suits than equitable remedies, this discussion focuses on damage claims against teachers or school boards based on conduct performed under the distributive model.

²⁴¹ *Harlow v. Fitzgerald*, 457 U.S. 800, 818 (1982).

The analysis becomes very different, however, when we consider municipal liability for the conduct of a teacher under the distributive model. Municipalities are largely immune from claims based on alleged violations by municipal employees.²⁴² Teachers' status as policy makers under the distributive model, however, could dramatically change the scope of their municipal employers' (school board's) immunity. Municipalities are not immune from allegedly unconstitutional conduct that "implements or executes a policy statement, ordinance, regulation or decision officially adopted and promulgated by that body's officers,"²⁴³ regardless of whether the individual employee qualifies for immunity in her personal capacity.²⁴⁴ Moreover, whether a government official is a policy maker is defined by reference to state law.²⁴⁵ In the case of the distributive model, any alleged damage to students²⁴⁶ would be the result of decisions by individual teachers, who are not only empowered, but encouraged, to set evolution instruction policy in their own classrooms.²⁴⁷ By empowering individual teachers to act as policy makers as a matter of state law, school boards may weaken their claims to immunity against suits based on a teacher's conduct under the distributive model. This weakened immunity, in conjunction with the high number of independent policy makers acting under the distributive model, greatly increases a school board's exposure to damage suits.

The distributive model's policy-making regime also creates a potential immunity problem for school boards in the context of suits for a failure to train teachers that, according to the model, are permitted

242 See *Monell v. Dep't of Soc. Servs.*, 436 U.S. 658 (1978) (holding that municipalities are subject to suits for damages only where the alleged violation is the result of a municipal policy).

243 *Id.* at 690.

244 See *Owen v. City of Independence*, 445 U.S. 622, 638 (1980) (finding that a municipality cannot assert the good faith of its employees as a grounds for qualified immunity from suit under § 1983).

245 See *Jett v. Dallas Indep. Sch. Dist.*, 491 U.S. 701, 737 (1989) ("[W]hether a particular official has 'final policymaking authority' is a question of *state law*." (quoting *St. Louis v. Praprotnik*, 485 U.S. 112, 123 (1988))).

246 Damages may be difficult to prove for an Establishment Clause violation, but that does not mean they are unavailable. See, e.g., *Pierce ex rel. Pierce v. Sullivan W. Cent. Sch. Dist.*, 379 F.3d 56, 58 (2d Cir. 2004) (entertaining allegations of damages based on, *inter alia*, humiliation resulting from an alleged violation of the Establishment Clause); *Doe v. Santa Fe Indep. Sch. Dist.*, 168 F.3d 806, 824 (5th Cir. 1999) (requiring a showing of "compensable harm" before damages may be awarded for an Establishment Clause violation).

247 See, e.g., Louisiana Science Education Act, LA. REV. STAT. ANN. § 17:285.1.B(1), (2) (2008) (stating that the State Board of Education "shall *allow and assist* teachers . . . to create and foster an environment . . . that promotes critical thinking . . . of scientific theories," including offering "support and guidance" for those efforts) (emphasis added).

to exercise wide discretion in making decisions pertaining to evolution instruction. Although suits based on a failure to train require a showing that the supervisory body demonstrated deliberate indifference to the alleged constitutional harm in its failure to train,²⁴⁸ the structure of the distributive model makes this standard relatively easy to meet. The model does not require any training of teachers with regard to the evolution debate, but it also specifically avoids providing any detailed guidance to teachers for the very purpose of encouraging independence and maximizing discretion.²⁴⁹ This approach looks very much like deliberate indifference and, when coupled with the high number of largely unconstrained actors employed throughout the school system, could lead to a high number of failure to train suits against school boards.

The delegation issue associated with the distributive model is thus important not solely because of the significant delegation of power employed by the model, but because acknowledging the significance of the model's delegation of power to individual teachers expands the landscape against which the model itself may be evaluated. This in turn leads to other questions that, although not exclusive to administrative law, are significant to the distributive model's viability and are far more difficult to identify without administrative principles guiding the analysis.

In sum, the political legitimacy of the distributive model and the potential impact of judicial review and delegation on the model's function and viability are just a few examples of issues that are not readily apparent when the policy is considered from a purely religious and constitutional vantage point. By viewing this new generation of evolution instruction policy in light of administrative law principles, we are able to recognize significant questions beyond the Establishment Clause issues that have traditionally dominated the evolution instruction debate.

VI. CONCLUSION

The controversy over evolution education in America has focused on the potential for religious doctrines and ideas to infiltrate public school science classrooms. More specifically, this debate has concen-

²⁴⁸ See *City of Canton v. Harris*, 489 U.S. 378, 388 (1989) ("We hold today that the inadequacy of police training may serve as the basis for § 1983 liability only where the failure to train amounts to deliberate indifference to the rights of persons with whom the police come into contact.").

²⁴⁹ See discussion *supra* note 80.

trated on whether attempts to curtail or otherwise challenge evolutionary theory in science classrooms constitute an unconstitutional establishment of religion under the First Amendment. Although that question is still an important one, as the religious underpinnings of the debate are undeniable, recent policy measures surrounding the debate—specifically, the distributive model of evolution instruction—suggest that a broader perspective is necessary to avoid being blinded by Establishment Clause concerns to other, potentially more significant issues.

This Article contends that administrative law principles provide a more helpful context for evaluating the distributive model. A perspective rooted in administrative law is broad enough to include inquiries about the model's religious character under the Establishment Clause, while also highlighting other important features of the distributive model, such as its status as a scientific policy measure and its dynamic use of rulemaking and adjudication. These other features beg critical questions of political legitimacy and separation of powers that are beyond the scope of the Establishment Clause. Only through an analytical perspective that appreciates the significance of administrative law does the full panoply of issues raised by the distributive model come into view, and is the full range of the model's consequences able to be adequately understood.