The Fuzzy Logic of Federalism

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I agree with much of Professor Nagel's paper, including his astute closing comment that those who perceive great changes in the Supreme Court's United States v. Lopez1 opinion "are looking for the future in the wrong place."2 I want to focus on the tension Professor Nagel identifies between the constitutional theory of a limited central government and the reality of enumerated powers capable of encompassing all behavior. I agree that this tension is central to both Lopez and the Court's Commerce Clause jurisprudence, but I want to suggest a new way of characterizing that stress. In recasting the Commerce Clause dilemma, I will draw upon a contemporary theory of mathematical sets called fuzzy logic.3

Conventional, boolean logic divides the world into sharply bounded sets. This lectern is furniture; my eyeglasses are not furniture. I am a professor; that student is not a professor. Ordering a pair of moccasins from the L.L. Bean catalogue is interstate commerce; wearing those moccasins at home is not interstate commerce.

Tutored in boolean logic, which lawyers adore, we approach the Commerce Clause confidently—expecting to find a crisply defined set of activities that constitute "Commerce . . . among the

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several States." Instead, as Professor Nagel tells us, we find a mess.\textsuperscript{5} Everything, it turns out, is commerce among the states. Even wearing moccasins in the privacy of my own home is interstate commerce. \textit{Wearing} moccasins, after all, is related to the \textit{demand} for moccasins—and we know from \textit{Wickard v. Filburn}\textsuperscript{6} that even small adjustments in consumer demand affect interstate commerce.\textsuperscript{7} So couldn't Congress pass a law forbidding individuals from wearing any pair of moccasins for more than six months? That would enhance demand for moccasins and increase interstate sales by L.L. Bean.

At this point, we may be tempted to think that the problem lies in the word “commerce.” Maybe the Framers just picked a poor word, a chameleon word that was capable of too many meanings. Imagine for a moment that we gave Congress the power to regulate “furniture” instead of “commerce.” Would that solve the problem of enumerated powers by restricting Congress to a well-defined set of regulations?

Under a furniture power, Congress might begin by regulating chairs and tables; those things surely are furniture. But we could also make a case for regulating mirrors and picture frames, and even bathtubs and kitchen faucets. A sink might be “furniture,” and a faucet is part of a sink, so surely it is “furniture” too.\textsuperscript{8} And if Congress were really going to control furniture, it would have to regulate things that are stored in or on top of furniture as well. When I put my eyeglasses on top of my desk, I sometimes scratch the surface of the desk. So now Congress can regulate my eyeglasses in order to preserve its plenary power over furniture.\textsuperscript{9} And I'm quite confident that Congress could regulate marriage pursuant to a furniture power, because when people get married they buy a lot of furniture. Encouraging marriage stimulates the production and purchase of furniture.\textsuperscript{10} Pretty soon, as with our interpretation of

\textsuperscript{4} U.S. CONST. art. I, § 8, cl. 3.
\textsuperscript{5} Nagel, \textit{supra} note 2, at 649.
\textsuperscript{6} 317 U.S. 111 (1942).
\textsuperscript{7} See id. at 124-29.
\textsuperscript{8} See Gregg Oden, \textit{Fuzziness in Semantic Memory: Choosing Exemplars of Subjective Categories}, 5 \textit{MEMORY} \& \textit{COGNITION} 198, 201 (1977) (describing an experiment in which subjects rated the extent to which chairs, mirrors, pictures, bathtubs, and other objects were “furniture”).
\textsuperscript{9} Cf. Lopez, 115 S. Ct. at 1629 (noting that the Court in \textit{Perez v. United States}, 402 U.S. 146, 150 (1971), held that Congress may regulate destruction of aircraft or other instrumentalities of interstate commerce).
\textsuperscript{10} Cf. William Van Alstyne, \textit{Federalism, Congress, the States and the Tenth Amend-
the word "commerce," Congress can regulate everything under the sun pursuant to a furniture power.

With a little creativity, in other words, every linguistic category is infinitely expandable. Constitutional law professors used to challenge students to think of some law that Congress couldn't pass under the Commerce Clause. *Lopez* has ended that bit of academic fun. I encourage law professors now to see if their students can craft some enumerated power that the Supreme Court couldn't eventually construe to confer plenary power on Congress.

In sum, the word "commerce" doesn't create our difficulties in interpreting the Commerce Clause; the expectations of boolean logic produce those problems. We expect words to express sharp boundaries and are disappointed when they do not.1

Fuzzy logic recognizes that most sets, including linguistic sets, do not have clearly marked borders. Many objects belong partly to a class and partly outside that class. Rather than classifying objects as belonging to a set or its complement, fuzzy logic focuses on the degree to which an object belongs in a set.2 A fuzzy logician would say the following: chairs and tables are very much like furniture, they are near the center of that set; a picture frame is somewhat like furniture, but further from the center of that phenomenon; and a bathtub is only a little bit like furniture. Eyeglasses and marriage are hardly furniture at all, although even they can claim a small degree of membership in the set—especially if you have been to law school and learned to think like the Supreme Court.

Fuzzy logic is just as natural to our thought processes as boolean logic. In fact, psychologists find that subjects are quite comfortable taking a list of objects and ranking the degree to which they belong to a set.3 These rankings also show a high

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1. The Supreme Court occasionally recognizes the ambiguities inherent in the phrase "Commerce . . . among the several States," but seems mildly apologetic about that uncertainty. See, e.g., *Lopez*, 115 S. Ct. at 1634 ("These are not precise formulations, and in the nature of things they cannot be."); *Wickard v. Filburn*, 317 U.S. 111, 123 n.24 (1942) ("The criterion is necessarily one of degree and must be so defined. This does not satisfy those who seek for mathematical or rigid formulas.").


degree of consistency. We all agree that a chair is more furniture-like than a filing cabinet is; an apple is more of a fruit than an olive is; and a carrot is more vegetable-like than parsley or a pickle. We all think this way; we just haven’t realized that fuzzy logic is a useful way to think—an approach that can help us solve problems.

Now, how can this fuzzy logic help us solve the Commerce Clause dilemma that Professor Nagel identified? Fuzzy logic teaches us that we should stop asking, as the Supreme Court often has, “is this conduct ‘commerce’?” and “does the category of ‘commerce’ have any end?” Instead we should ask, “how much is this conduct like commerce?” and “how much like commerce must conduct be before Congress can regulate it?”

Phrasing the questions that way is somewhat scary, because it admits that the Supreme Court plays an active role in interpreting the Constitution. The Court is not simply enforcing a boundary called “commerce” that was drawn more than two hundred years ago. As scholars from many schools of thought have taught us, however, we can’t pretend that the Constitution’s text yields precise

\[\text{FREIBERGER, supra note 3, at 84-85.}\]

14. Rosch, supra note 13, at 111; see also Oden, supra note 8, at 201.

15. For engineers, fuzzy logic has proved remarkably fruitful in solving problems. Fuzzy logic has enabled engineers to design subway trains that start and stop more smoothly than trains driven by a human conductor, washing machines that automatically adjust the wash cycle to the dirtiness of the clothes, cameras that compensate for hand jitters, and a host of other consumer products. See McNeill & Freiberger, supra note 3, at 156; Kosko & Isaka, supra note 3, at 78-80.

16. The Lopez majority moved between these two types of analysis. The Court began by quoting Chief Justice Marshall’s famous definition of “commerce,” which suggests a fairly definite boundary to the activities denominated “commerce.” 115 S. Ct. at 1626-27 (quoting Gibbons v. Ogden, 22 U.S. (9 Wheat.) 1, 189-90 (1824)). The majority also showed intense concern over whether the Commerce Clause has any recognizable outer boundary. Id. at 1632-34. In the end, however, the Court recognized that “the question of congressional power under the Commerce Clause ‘is necessarily one of degree,’” id. at 1633 (quoting NLRB v. Jones & Laughlin Steel Corp., 301 U.S. 1, 37 (1937)), and concluded that attempts to define the limits of the commerce power yield no “precise formulations.” Id. at 1634. These statements are more akin to the fuzzy questions I pose in the text.

Resolution of Commerce Clause controversies depends, not only on the meaning of the word “commerce,” but on the meaning of “regulate” in the Commerce Clause and both “necessary” and “proper” in the Necessary and Proper Clause. See U.S. Const. art. I, § 8, cl. 18. For simplicity, I focus on the word “commerce” in the text. Expanding the inquiry to the meaning of “regulate,” “necessary,” or “proper” would not alter the analysis. These terms, like “commerce,” denote fuzzy sets. The Supreme Court must consider historical and normative values, like the ones I describe in the text, to define the breadth of those terms.
answers. Certainly the Commerce Clause does not yield a single, fixed answer—or, if it does, that answer is inconsistent with the Constitution's intent to confer limited powers upon Congress.\textsuperscript{17}

It is possible to identify guideposts for answering these "fuzzy" questions about commerce. In fact, the Supreme Court has laid much of the groundwork. Since the New Deal, the Court has acknowledged that elected legislators, rather than appointed judges, should set the economic and social goals in a democratic society.\textsuperscript{18} Congress is also more knowledgeable than the Court about the economic effects of legislation.\textsuperscript{19} A complex modern society, furthermore, demands national solutions to many problems.\textsuperscript{20} All three of these factors suggest that, as long as Congress says that an activity is "commerce," the activity does not have to be very much like commerce to survive Commerce Clause scrutiny.

On the other hand, as Lopez reminds us, both the structure and text of the Constitution imply some limits on congressional power.\textsuperscript{21} Commitment to the values of a federal system conveys the same message.\textsuperscript{22} These factors suggest that, although the Commerce Clause does not demand much commerce-likeness, it requires something more than zero.

As I noted at the beginning, this is just another way of char-

\textsuperscript{17} Some scholars have argued that the words of the Commerce Clause define a narrow, clearly marked set of activities. Richard Epstein, for example, suggests that "commerce" means "shipping and navigation, and the contracts regulating buying and selling." Richard A. Epstein, The Proper Scope of the Commerce Power, 73 VA. L. REV. 1387, 1394 (1987). Justice Thomas adopted much the same tone in his concurring opinion in Lopez. Further examination of Epstein's and Thomas's arguments, however, reveal that they reject broader definitions of "commerce" for normative reasons: these definitions would conflict with the Tenth Amendment or structural assumptions of federalism. These arguments do not rest on the simple assertion that "commerce" is a sharply defined set of activities. Epstein's final definition of interstate commerce, moreover, is distinctly fuzzy: "interstate transportation, navigation and sales, and the activities closely incident to them." Id. at 1454 (emphasis added).


\textsuperscript{19} Lopez, 115 S. Ct. at 1658 (Breyer, J., dissenting); Hodel, 452 U.S. at 277-80; Perez v. United States, 402 U.S. 146, 155-57 (1971).

\textsuperscript{20} See, e.g., United States v. Darby, 312 U.S. 100, 122 (1941); NLRB v. Friedman-Harry Marks Clothing Co., 301 U.S. 58, 59 (1937).

\textsuperscript{21} 115 S. Ct. at 1626 ("We start with first principles. The Constitution creates a Federal Government of enumerated powers."); see also Friedman-Harry Marks Clothing Co., 301 U.S. at 37 (stating that the scope of Congress's commerce power "must be considered in the light of our dual system of government").

acterizing the Commerce Clause dilemma that Professor Nagel painted. Rather than seeing two horns of a dilemma, however, I see hydraulic forces pushing in opposite directions to fix the point at which the Supreme Court will say, "Yes, this conduct is enough like commerce that Congress may regulate it."23

_Lopez_ is quite consistent with the latter view. Possession of a gun within 1000 feet of a school is, to some extent, commerce. In fact, like everyone else with perfect hindsight, I'm sure that I could have won the _Lopez_ case for the Government.24 But this conduct was less like commerce than any other behavior the Court had considered in its Commerce Clause rulings: the conduct was noncommercial, it touched on an area traditionally subject to local regulation, it occurred outside the workplace, it did not evoke dangers demanding national control, and Congress had chosen to regulate the behavior without adopting a jurisdictional element or making findings.25 _Lopez_ simply found a point at which the forces pushing against congressional regulation prevailed, and the Court said "this isn't enough like commerce for the statute to stand."

I think Professor Nagel's concept of successive validation is quite helpful in describing both _Lopez_ and other constitutional decisions.26 But I would complement that characterization with a description of _Lopez_ that recognizes the fuzziness of commerce as a category—and celebrates that fuzziness. We don't need to shrink from the fact that everything is at least a little bit commerce-like. We can learn to ask how much an activity must be like commerce before Congress can regulate it.

The Supreme Court may be stumbling slowly towards that

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23. Fuzzy logic cannot determine the exact location of that equilibrium point. Finding the equilibrium is a normative judgment shaped by factors like the ones described above. Fuzzy logic is simply a way of characterizing the process by which the Supreme Court might arrive at that decision.

24. If the Government had discarded its arguments that gun possession in schoolyards might raise insurance rates or discourage interstate travel—claims that trivialized the Commerce Clause with their tenuousness—and had focused on its productivity argument (that guns disrupt education, thus reducing workforce skills), the Court might have been more sympathetic to the Government's case. In addition, the Government should have admitted that the Court had not previously applied the productivity rationale to conduct occurring outside the workplace, and should have reassured the Justices that this theory could be narrowly extended to schools because educational institutions bear a unique relationship to productivity. See Merritt, supra note 3, at 687-89.

25. For further discussion of these and other factors distinguishing the _Lopez_ case, see Merritt, supra note 3, at 693-712.

question. I disagree with Professor Nagel on a point related to this.\textsuperscript{27} I think that the Supreme Court did apply a substantial effects test in \textit{Lopez}, but with a different meaning than the one we had been taught to expect. Most observers, like Justice Breyer, understood the substantial effects test as a quantitative measure.\textsuperscript{28} As long as Congress could point to a dollar effect on commerce that was “substantial,” it could regulate the conduct generating that effect. Under this quantitative version of the “substantial effects” test, neither the manner in which the effect was transmitted nor the length of the causal chain mattered. As long as the conduct had a “but for” effect on a substantial amount of interstate commerce, the test was satisfied.

A few Supreme Court opinions used the phrase “substantially affects” in this manner,\textsuperscript{29} but others retained a more complex meaning of substantiality. These opinions used the phrase “substantially affects” to convey the meaning we ascribe to “proximate cause” in tort law. The notion of proximate cause asks whether a defendant’s negligence was “close enough” to the plaintiff’s injury to justify shifting the plaintiff’s costs to the defendant.\textsuperscript{30} In the same way, this second meaning of “substantially affects” asks whether the conduct is “close enough” to interstate commerce to justify congressional regulation. \textit{Lopez} revived this meaning of “substantial effects” from a long slumber, but the concept had never entirely disappeared from the Court’s jurisprudence.\textsuperscript{31}

\begin{footnotes}
\footnotetext[27]{Nagel, \textit{supra} note 2, at 651 (arguing that the “substantial effects” test was discussed in \textit{Lopez}, but not applied).}
\footnotetext[28]{See, e.g., \textit{Lopez}, 115 S. Ct. at 1663 (Breyer, J., dissenting) (“The Court believes the Constitution would distinguish between two local activities, each of which has an identical [dollar] effect upon interstate commerce, if one, but not the other, is ‘commercial’ in nature.”).}
\footnotetext[29]{See, e.g., Katzenbach v. McClung, 379 U.S. 294, 304 (1964); Wickard v. Filburn, 317 U.S. 111, 125 (1942).}
\footnotetext[30]{See, e.g., \textit{W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS} § 42, at 273 (5th ed. 1984).}
\footnotetext[31]{See, e.g., Heart of Atlanta Motel v. United States, 379 U.S. 241, 255 (1964) (explaining that the determinative test is “whether the activity sought to be regulated . . . has a real and substantial relation to the national interest”); United States v. Darby, 312 U.S. 100, 117 (1941) (finding that “the validity of the prohibition turns on the question whether the employment . . . is so related to the commerce and so affects it as to be within the reach of the power of Congress to regulate it.”); NLRB v. Jones & Laughlin Steel Corp., 301 U.S. 1, 37-38 (1937) (recognizing that Congress may regulate activities that have “a close and substantial relation to interstate commerce,” or that enjoy a “close and intimate relation” to commerce, or that have a “close and intimate effect” on commerce).}
\end{footnotes}
Once we understand the “substantial effects” test as a limit akin to proximate cause, it is clear why the Court in Lopez “pause[d] to consider the implications of the Government’s arguments,” immediately after announcing this test. That is exactly what judges say in a negligence case when they are about to rule that the defendant’s conduct was not a proximate cause of the plaintiff’s injury. The purpose of proximate cause is to cut off liability before a defendant becomes responsible for every injury that can be traced to her conduct. The very fact that a plaintiff’s arguments would subject the defendant to liability for every but-for result of her actions is relevant to the proximate cause inquiry.

In the same way, the purpose of the substantial effects test is to cut off Congress’s power to regulate “commerce” before the Commerce Clause loses its meaning as an enumerated power. This meaning of “substantial” includes quantitative effects, but it incorporates a host of other factors as well. One of those factors is whether the government’s argument is so all-encompassing that it sweeps all conduct within congressional control.

I hasten to add that this shift in the meaning of substantial effects, like the Lopez decision itself, will have very little practical effect. Lopez says that conduct must be a little more like commerce than the acts depicted by the government in that case, but that isn’t saying very much. The Supreme Court has already sent many signals that Lopez is at or near the high water mark of its Commerce Clause revival. In addition to the cases mentioned by

proximate cause occurs in Justice Cardozo’s concurring opinion in A.L.A. Schechter Poultry Corp. v. United States, 295 U.S. 495 (1935). Cardozo explained,

There is a view of causation that would obliterate the distinction between what is national and what is local in the activities of commerce. Motion at the outer rim is communicated perceptibly, though minutely, to recording instruments at the center. . . . The law is not indifferent to considerations of degree. Activities local in their immediacy do not become interstate and national because of distant repercussions. What is near and what is distant may at times be uncertain.

Id. at 554. The majority cited this language in Lopez, 115 S. Ct. at 1633-34, underscoring the proximate cause nature of its analysis.

32. 115 S. Ct. at 1632; see also Nagel, supra note 2, at 651.

33. See, e.g., KEETON, supra note 30, at 273 (explaining that proximate cause refers “to those more or less undefined considerations which limit liability even where the fact of causation is clearly established”)

34. For further discussion of those factors, as well as the notion of “substantial effects” as an analog to proximate cause, see Merritt, supra note 3, at 677-82.

35. Merritt, supra note 3, at 685-90, 712.

36. See Merritt, supra note 3, at 728-38 (discussing the future of Commerce Clause
Professor Nagel, I would add the extremely cautious concurring opinion of Justices Kennedy and O'Connor in *Lopez,* the carjacking and arson cases that the Court held pending its *Lopez* decision but then declined to remand for reconsideration in light of *Lopez* and *Allied-Bruce Terminix Cos. v. Dobson,* a case decided just a few months before *Lopez* in which the Court enforced the Federal Arbitration Act against a local homeowner. *Terminix* provided a much more explosive opportunity to rework the Commerce Clause if the Court had wanted to seize it. But the Justices failed to recognize the opportunity.

In the end, *Lopez* may tell us more about constitutional theory, and how the Court interprets constitutional text, than it tells us about what Congress can regulate. As a practical matter, *Lopez* has deprived Congress of very little power. Professor Nagel, howev-

jurisprudence as reflected in such recent cases as United States v. Robertson, 115 S. Ct. 1732 (1995), in which the Court held that an Alaskan gold mine that transported fifteen percent of its product outside the state was engaged in interstate commerce under the Racketeer Influenced and Corrupt Organizations Act (RICO), and *Allied-Bruce Terminix Cos. v. Dobson,* 115 S. Ct. 834 (1995), discussed infra notes 39-40 and accompanying text).

Although the courts are unlikely to strike many statutes by holding that under *Lopez* Congress lacked a rational basis for concluding that the regulated conduct substantially affected interstate commerce, other aspects of the Supreme Court's federalism jurisprudence may enjoy more vigor. The autonomy principle articulated in *New York v. United States,* 505 U.S. 144 (1992), constrains congressional power to demand action by state governments. And the Court's recent application of the Eleventh Amendment in *Seminole Tribe of Florida v. Florida,* 116 S. Ct. 1114 (1996), will affect federal court enforcement of federal statutes against state governments.

37. 115 S. Ct. at 1634 ("The history of the judicial struggle to interpret the Commerce Clause . . . gives me some pause about today's decision.").

38. *See* *Overstreet v. United States,* 115 S. Ct. 1970 (1995); *Osteen v. United States,* 115 S. Ct. 1825 (1995); *Ramey v. United States,* 115 S. Ct. 1838 (1995); *Moore v. United States,* 115 S. Ct. 1838 (1995). *See generally* Merritt, *supra* note 3, at 735-38 (noting that by denying certiorari in these cases, as opposed to remanding for further consideration, the Supreme Court might have been "content to retreat from the Commerce Clause once *Lopez* had been decided").


40. In *Terminix,* the Court enforced a provision of the Federal Arbitration Act, 9 U.S.C. § 2 (1994), against a homeowner who purchased services from a local franchise with interstate connections. From the homeowner's point of view, the transaction was completely local. A Court intent on restricting the scope of the Commerce Clause might have used the case to distinguish regulation of businesses operating in interstate commerce from regulation of customers (especially private homeowners) patronizing those businesses. None of the Justices, however, expressed any interest in such a distinction. *See* Merritt, *supra* note 3, at 733-35 (concluding that when federal legislation relates to any sort of commercial activity, the court is unwilling to restrict Congress's expansive legislative activity).

41. For a detailed analysis of congressional power in multiple settings after *Lopez,* see
er, uses *Lopez* to illuminate one important facet of the Court’s constitutional decisionmaking and I have attempted to provide a slightly different outlook on that process. That, I suspect, will constitute *Lopez’s* major contribution: a decision that stimulates thoughtful judicial and academic commentary on the nature of constitutional decisionmaking.42


42. In addition to the excellent contributions to this symposium, see Calabresi, supra note 41; Daniel A. Farber, *The Constitution’s Forgotten Cover Letter: An Essay on the New Federalism and the Original Understanding*, 94 MICH. L. REV. 615 (1995); Fried, supra note 41; Pollak, supra note 41; H. Jefferson Powell, *Enumerated Means and Unlimited Ends*, 94 MICH. L. REV. 651 (1995); Regan, supra note 41.