THE RACE TO GENEVA: RESISTING THE GRAVITATIONAL PULL OF THE WTO IN THE GMO LABELING CONTROVERSY

Daniel Schramm

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> I asked him if he saw any downside to biotechnology. Someone from Monsanto was with us at the table; Young's reply was a long time in coming, and the moment grew uncomfortable. What he finally said silenced the table, and made me think again about the image of mastery he'd projected—about the computer-controlled fields, the chemical distributorship, the miles of patented high-tech spuds framed in his living room's picture window, reaching clear to the horizon.

> "Oh, there is a cost all right," Young said darkly. "It gives corporate America one more noose around my neck."[1]

INTRODUCTION

In August of 2006, officials from the U.S. Department of Agriculture (USDA) announced that they had detected a strain of genetically engineered (GE) rice called "Liberty Link" not approved for human consumption in supplies of long-grain rice in Arkansas and Missouri.[2] That announcement triggered a chain reaction of regulatory decisions, trade negotiations, and class-action litigation that perfectly illustrates the complexity, risks, and regulatory conundrums of GE crops in the global agricultural market. The European Community (EC),[3] which in 2005 imported $72.7 million worth of U.S. rice,[4] responded within a week by establishing a new requirement

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1. MICHAEL POLLAN, THE BOTANY OF DESIRE 234–35 (2001); *see also* VANDANA SHIVA, BIOPIRACY: THE PLUNDER OF NATURE AND KNOWLEDGE 45 (1997) ("Biotechnology, as the handmaiden of capital in the postindustrial era, makes it possible to colonize and control that which is autonomous, free, and self-regenerative. Through reductionist science, capital goes where it has never been before. The fragmentation of reductionism opens up [new] areas for exploitation and invasion."). The relevance to this Note of the epigram and the above quote is in their expression of a fundamentally *socioeconomic* concern about the dangers of genetic engineering, rather than an *ecological* concern based in a scientific risk assessment.

2. Andrew Pollack, *In Error, Rice Crop is Mixed with an Unapproved Strain*, N.Y. TIMES, Aug. 19, 2006, at C4. Subsequent analyses have verified that "Liberty Link" rice does not pose a threat to human health if consumed. *See* Ronald Bailey, *Snap, Crackle, Poison? G.M. Rice Scare*, REASON, Feb. 1, 2007, at 8, *available at* http://www.reason.com/news/show/117880.html (calling foreign responses to the contamination "bogus" and "protectionist").

3. This Note discusses legal issues related to the EC, not the European Union (EU). The EC is the successor to the European Economic Community (EEC), one of three "communities" formed by treaties in 1951 and 1957 to encourage economic integration in post-war Europe. DAVID A. O. EDWARD & ROBERT C. LANE, EUROPEAN COMMUNITY LAW: AN INTRODUCTION 3–4 (2d ed. 1995). The EEC became the EC in 1992, when at Maastricht, Netherlands, the Treaty on European Union was signed, creating the EU and establishing the newly-named EC as one of its three "pillars" (along with foreign and security policy). *Id.* at 11–12. The EC in its present form has significantly expanded political powers as a result of a series of treaty amendments, most recently in the Treaty of Nice, which took force in February of 2003. Treaty of Nice, Amending the Treaty on European Union, the Treaties Establishing the European Communities and Certain Related Acts, Feb. 26, 2001, 2001 O.J. (C 80) 1, *available at* http://europa.eu.int/eur-lex/lex/en/treaties/dat/12001C/pdf/12001C_EN.pdf. *See generally* Eur-Lex, Process and Players, ¶ 1.1.3, http://eur-lex.europa.eu/en/droit_communautaire/droit_communautaire.htm (last visited Feb. 4, 2007) (describing the operation of the EU). Despite the close identity relation between the EU and the EC, the EC is technically a distinct "member" of the World Trade Organization (WTO) apart from its constituent member states. World Trade Organization, The European Communities and the WTO, http://www.wto.org/english/thewto_e/countries_e/european_communities _e.htm (follow the "more info" hyperlink) (last visited Feb. 4, 2007).

4. *U.S., EU Fight Over GMO Rice, Cooperate on Third-Country Barriers*, FDA WEEK, Oct. 27, 2006, *available at* 2006 WLNR 18664651.

that all shipments of long-grain rice from the United States over the next six months be certified free of genetically modified organisms (GMOs).[5] Japan banned rice shipments from the United States altogether.[6] In August of 2006, 229 U.S. rice farmers, representing 125,000 acres of farmland in the Midwest, filed twin class-action suits in federal courts in St. Louis and Arkansas against Bayer CropScience, the manufacturer of the "Liberty Link" rice strain.[7] They have alleged, among other things, that the contamination has already had a significant effect on the price of wholesale rice, that it has exposed rice farmers to enhanced regulatory burdens, and that the level of property loss due to the contamination threatens entire rice-farming operations.[8] The unauthorized presence of GMOs in crop exports to the EC countries, Japan, and other countries with strict regulations on GMOs is, in the words of one farmers' advocate, "economic suicide."[9]

The farmers' worst fears came to pass that same month when three barges of U.S. long-grain rice sitting at port in Rotterdam, Netherlands tested positive for the presence of the "Liberty Link" rice.[10] The barges, which the United States had certified to be free of the GE rice under the EC's new certification protocol, were forced to return to U.S. soil without unloading their cargo.[11] Because the United States had incorrectly certified the shipment GMO-free, the EC government in Brussels called for national regulators in Europe to do their own testing from then on, with costs borne by the exporters, undermining the competitiveness of U.S. rice on the European market.[12] The United States and the EC then held negotiations on the testing protocol, but could not reach agreement on the level and degree of accuracy of the testing.[13]

As of January 2007, the EC continues to keep in place mandatory testing for the presence of GMOs in U.S. rice.[14] In reality, however, the

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5. *World Business Briefing Europe: Restrictions on Rice Imports*, N.Y. TIMES, Aug. 24, 2006, at C4.

6. *Id.*

7. Allison Retka, *Contaminated Rice Crops Spur Twin Class Actions in Missouri*, MISSOURI LAWYER'S WEEKLY, Sept. 25, 2006.

8. *See In re* LLRice 601 Contamination Litigation, 466 F. Supp. 2d 1351 (E.D. Mo. 2006) (noting that the "twin" lawsuits were consolidated into one suit to be heard in Missouri).

9. Claire Konkes, *GE Rice Botch a Blow to Industry*, TASMANIAN COUNTRY, Oct. 20, 2006, at 2, *available at* 2006 WLNR 3622934.

10. Retka, *supra* note 7.

11. FDA WEEK, *supra* note 4.

12. Andrew Bounds, *U.S. Rice Exporters Face New Costs*, FT.COM (Oct. 19, 2006), http://search.ft.com/ftArticle?queryText=U.S.+Rice+Exporters+Costs&aje=true&id=061019002660, *available at* 2006 WLNR 18256025.

13. FDA WEEK, *supra* note 4.

14. *EU Keeps Mandatory Rice Testing, Lifts Testing Requirement on Corn*, INSIDE U.S. TRADE, Jan. 26, 2007, *available at* 2007 WLNR 1565802.

failure to reach agreement on testing has left an even greater burden on U.S. rice farmers: there are simply no longer any U.S. rice shipments to Europe.[15]

The sad saga of the "Liberty Link" rice—whose name ironically conjures memories of the great transatlantic alliance between Western Europe and the United States throughout the wars of the past century—illustrates the difference in regulatory attitude the United States and the EC have taken to biotechnology.[16] More specifically, it reveals the significant burdens the EC's current regime of GMO labeling and traceability (L&T) requirements continues to impose on U.S. exporters. The "Liberty Link" controversy demonstrates that the September 29, 2006, release of the final panel report (*Biotech Panel Report*)[17] of the World Trade Organization's (WTO) Dispute Settlement Body (DSB), which resolved claims by the United States, Canada, and Argentina challenging the EC's restrictions on GMO imports, will by no means mark the end of transatlantic dissension over GMO regulation. Indeed, before the ink was dry on the *Biotech Panel Report*,[18] the U.S. biotechnology and agriculture industries—smarting from the "Liberty Link" controversy—began clamoring for U.S. Trade Representative (USTR) Susan Schwab, to bring another complaint in the WTO, this time against the EC's current GMO L&T requirements, which took effect in 2003.[19]

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15. *Id.*

16. For discussion on the economic, social, cultural and historic reasons for differences between U.S. and EC GMO regulatory frameworks, see generally Lauran Beusam, *Biotechnology & Agriculture: Differences Between the United States and Europe*, 10 MICH. ST. UNIV.-DETROIT C. L.J. INT'L L. 53, 54–56 (2001) (highlighting America's risk-taking business culture and comfort with technological innovations in food production); Neil D. Hamilton, *Legal Issues Shaping Society's Acceptance of Biotechnology and Genetically Modified Organisms*, 6 DRAKE J. AGRIC. L. 81, 82–83 (2001) (illustrating U.S. focus on the economic advantages of biotechnology for the government and for farmers); George E.C. York, Note, *Global Foods, Local Tastes & Biotechnology: The New Legal Architecture of International Agriculture Trade*, 7 COLUM. J. EUR. L. 423, 434–35 (2001) (noting Europe's attention to processes of food production, whereas the U.S. has focused on the end product); Joanne Scott, *European Regulation of GMOs and the WTO*, 9 COLUM. J. EUR. L. 213, 219–24 (2003) (noting that the precautionary principle is the foundation of the EC's environmental policy).

17. Panel Report, *European Communities—Measures Affecting the Approval and Marketing of Biotech Products*, WT/DS291/R (U.S.), WT/DS292/R (Can.), WT/DS293/R (Arg.) (Sept. 29, 2006) [hereinafter *Biotech Report*].

18. The EC chose not to challenge the Panel Report in the Appellate Body. William Schomberg & Jeremy Smith, *EU Won't Appeal WTO Ruling on GMO Moratorium*, PLANET ARK, Nov. 22, 2006, http://www.planetark.com/dailynewsstory.cfm/newsid/39102/story.htm.

19. *See, e.g.*, Letter from House and Senate to USTR, Nov. 13, 2006 ("We urge you to exercise the United States' full rights under the WTO to ensure full compliance on the part of the EU with the findings of the dispute panel in this case."); *Agriculture, Trade Chairs Press USTR for Tough Line on EU GMO Case*, INSIDE U.S. TRADE, Nov. 17, 2006, *available at* 2006 WLNR 19972904 (noting further that the letter states that since no action has been taken on the moratorium, suppliers are outsourcing to companies outside the US); *see also Agriculture, Trade Chairs Press USTR for Tough Line on EU GMO*

It remains unclear whether the United States will bring a second case.[20] However, a future WTO challenge is a real possibility because of the "Liberty Link" controversy and larger biotech concerns within U.S. agribusiness. [21] Those concerns stem from the EC's current GMO regulations and their potential to provide a potent regulatory model for other countries.[22]

This Note will analyze the legal arguments on which the EC could base a jurisdictional defense of its GMO L&T requirements in the event of a WTO complaint against them by the United States or another WTO member. Part I provides an overview of the environmental and political controversies that surround biotechnology, the WTO's ongoing dilemma in adjudicating trade disputes involving environmental and health regulations, and a short synopsis of the key holdings of the *Biotech Panel Report.* Part II examines the *Biotech* Panel's jurisdictional definition of "measures" covered by the WTO's *Agreement on the Application of Sanitary and Phytosanitary Measures* (*SPS Agreement*) and the Panel's subsequent analysis of the GMO L&T requirements the EC had in place at the time the *Biotech* dispute was brought before the WTO. Those regulations will be compared with current EC GMO regulations and a recommendation made for amendment of the new regulations' statements of purpose.

Part III presents a recommendation for how the WTO's Dispute Settlement Body (DSB) should resolve future disputes that implicate laws serving purposes both inside and outside the jurisdictional coverage of a WTO agreement. By clarifying that GMO labeling serves valid purposes related to consumer autonomy that go beyond environmental and public health concerns, the EC may be able to resist the powerful gravitational pull of the WTO's trade-tilted dispute settlement process; it may slow down the race to the WTO's "courthouse door" in Geneva, Switzerland. Conversely, if the WTO exercises jurisdiction to invalidate laws intended to give effect

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Case, FDA WEEK, Nov. 24, 2006, *available at* 2006 WLNR 20268415 [hereinafter *Chairs Press USTR*] (citing the letter's concerns about the negative impacts to U.S. agricultural trade of labeling and traceability requirements).

20. *See Soy Bean Growers Fail to Win USTR Support for GMO Case Against EU*, FDA WEEK, Aug. 25, 2006, *available at* 2006 WLNR 14748250 [hereinafter *Bean Growers*] (noting that USTR officials were not convinced they could win under the "relatively untested" requirements of the TBT Agreement); *Chairs Press USTR*, *supra* note 19 (noting USTR's hesitancy to bring a claim out of diplomatic interest in retaining the EU's cooperation in the "lagging Doha round of WTO negotiations").

21. *See* STUART SMYTH ET AL., REGULATING THE LIABILITIES OF AGRICULTURAL BIOTECHNOLOGY 137 (2004) ("At present, over twenty-eight countries plus the EU have either developed or publicly declared their intent to introduce mandatory labeling legislation for [GMOs]."); *Bean Growers*, *supra* note 20 (citing Chile as a country that might soon follow the EC's lead on GMO labeling).

22. SMYTH ET AL., *supra* note 21, at 137.

to the moral concerns of individual consumers—a ruling that would be inconsistent with the Panel's reasoning in *Biotech*—the WTO's *SPS Agreement* jurisprudence will become an ultra vires *golem*,[23] taking the WTO well beyond the mandate given to it by its member countries.

I. OVERVIEW OF THE ISSUES SURROUNDING GMO LABELING

A. Genetically Modified Organisms

Genetically modified organisms (GMOs), also known as "biotechnology," "biotech," or "agbiotech,"[24] remain a relatively new and untested technological development in methods of agricultural production.[25] GMOs are essentially "crops contain[ing] specific gene sequences artificially inserted into their genome."[26] Genetic engineering (GE), the development and manufacture of GMOs, can exponentially accelerate the development of new crop varieties (compared to traditional methods of crop breeding) to exhibit desired traits such as resistance to diseases, pests, pesticides, herbicides, drought, and other environmental conditions.[27] GE varieties of major staple crops such as corn, potatoes, rice, and soy are already in widespread use, particularly in the United States, Canada, and Argentina.[28]

But the very newness of GMO technology has sparked both political and scientific controversies over their use.[29] Environmentalists, farmers'

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23. In Jewish mythology, a "golem" is a being created by man to accomplish some charitable deed, which then grows beyond the control of its creators, wreaking unforeseen chaos and destruction. The golem figure is often interpreted as a metaphor for hubris. Monstropedia.com, Golem, http://www.monstropedia.org/index.php? title= Golem (last visited Feb. 4, 2007).

24. *See* R.E. EVENSON & V. SANTANIELLO, *Editor's Introduction* to THE REGULATION OF AGRICULTURAL BIOTECHNOLOGY, at xv (R.E. Evenson & V. Santaniello eds., 2004) (noting that the "agbiotech revolution [has] stalled" since the first GMO products were introduced onto the market in 1996).

25. *See id.* at xv–xvi (discussing the failure of major research institutions as well as regulatory systems to adequately respond to the new challenges posed by biotech); SMYTH ET AL., *supra* note 21, at 4–5 (dating the beginning of "genetically based innovations" to 1985 and placing them in historical context as the third "wave" of agricultural developments in the 20th Century, following mechanization (1930s–1960s) and the explosion in use of chemicals (1950s–1990s)).

26. Robert L. Paarlberg et al., *Regulation of GM Crops: Shaping an International Regime*, *in* THE REGULATION OF AGRICULTURAL BIOTECHNOLOGY, *supra* note 24, at 3.

27. *Id.*

28. For example, by 2001, GM maize had grown to 46% of total production in major corn-growing countries; GM soybeans represented 59% of total production; and GM tobacco represented 38% of total production in China. SMYTH ET AL., *supra* note 21, at 63 tbl.5.3.

29. Paarlberg et al., *supra* note 26, at 1.

advocates, and others opposed to the use of GMO technology have based their criticism on the potential threats GMOs pose to human health and the environment, as well as the global socio-economic implications of their use.[30] Defenders of the biotech industry counter that fears over GMOs are unscientific,[31] self-defeating,[32] and elitist,[33] and that the EC's restrictive laws on GMOs reflect little more than the economic self-interest of protectionist European agriculturalists.[34]

Recently, the biotech industry and its supporters have begun emphasizing the humanitarian benefits of GMOs. For example, the Donald Danforth Plant Science Center in Creve Coeur, Missouri, has undertaken a major research project to develop a GE cassava plant resistant to a type of virus that is destroying the crop throughout Central Africa.[35] The Danforth Center is a nonprofit organization whose stated goal is to develop and "freely license" varieties of biotech crops that would be unprofitable in the private sector due to their primary application in developing countries.[36] Nonetheless, a series written on the cassava project in the *St. Louis Post-Dispatch* failed to note that the Danforth Center is literally across the street from the world headquarters of Monsanto,[37] one of the major corporate players in the biotech industry. The Center receives the bulk of its funding in direct corporate gifts from its for-profit "partner" on the other side of Olive Boulevard.[38]

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30. *See, e.g.*, BRIAN HALWEIL, EAT HERE: RECLAIMING HOMEGROWN PLEASURES IN A GLOBAL SUPERMARKET 72 (2004) (emphasizing food security risks of large-scale crop monocultures); MICHAEL WOODIN & CAROLINE LUCAS, GREEN ALTERNATIVES TO GLOBALISATION: A MANIFESTO 169–70 (noting the ecological risks of cross-pollination of GM crops with their undomesticated relatives).

31. SMYTH ET AL., *supra* note 21, at 40 (citing two studies of GMO ecological impacts based on what the authors call "incomplete science" that have led to costly regulations).

32. Robert A. Hillman, *The Rhetoric of Legal Backfire*, 43 B.C. L. REV. 819, 819–20 (2002) ("Consumer protection laws are said to increase prices and confuse consumers instead of arming them with legal rights.").

33. *See* Kim JoDene Donat, Note, *Engineering Akerlof Lemons: Information Asymmetry, Externalities, and Market Intervention in the Genetically Modified Food Market*, 12 MINN. J. GLOBAL TRADE 417, 451 (2003) ("In the balance between the right of culinary sovereignty and the rights of individuals to be free from hunger, the rights of the hungry must be given greater weight.") (footnotes omitted).

34. *Trade—Caution Needed*, ECONOMIST, Feb. 5, 2000, at 69 ("[T]he Biosafety Protocol opens up a loophole for protectionists. European governments, for instance, could use it to protect inefficient farmers from American competition on the pretext of protecting consumer health.").

35. Eric Hand, *A St. Louis Team Fights a Crop Killer*, ST. LOUIS POST-DISPATCH, Dec. 10, 2006, at A1.

36. *Id.*

37. The author has personal knowledge of this fact, having grown up in West St. Louis County about a mile from the Monsanto Campus.

38. In 2004, $14.9 million of the Center's $21 million budget came from "corporate/foundation gifts." DONALD DANFORTH PLANT SCIENCE CENTER, ANNUAL REPORT 2004, at 20, *available at* http://www.Danforthcenter.org/media/scireport/annual_report_2004.pdf. The report does not list which

Another case study in the use of GE technology to advance humanitarian ends is the successful effort of professors Peter Beyer and Ingo Potrykus, working in Germany and Switzerland respectively, to develop a strain of rice with increased levels of beta-carotene.[39] This GE rice could be used to stave off chronic vitamin deficiency in developing parts of the world.[40] While such scientific advances betoken promising humanitarian applications on their face, the response of the environmental community to this alleged "miracle" marks well the contours of the political battle the "Biotech Revolution" has joined. This response is captured in the popular literature by journalist Peter Pringle, who writes:

> The two scientists were corporate dupes, trapped in the folly of "industrial agriculture." Certainly, if golden rice were ever to be an effective weapon against malnutrition, it would have to be grown on millions of acres. Such monocultures, the critics argued, encouraged crop failure, destroyed traditional varieties, favored the rich at the expense of poor farmers, and put the production of the world's food supply into the hands of a few. The spectacular failures of monocultures were well known. More than a million people starved to death in Ireland in 1845 because of the blight that rotted an entire season's monoculture crop of potatoes. More than a century later, another blight hit the cornfields of America when certain widely used hybrids in 1970 produced a scant half of the projected yields. Monoculture encouraged farmers to abandon their traditional varieties and plant 'miracle' crops; the practice threatened the survival of seeds that had been carefully cultivated over centuries. Without these *landraces*, or heritage seeds, it would also be impossible to pump new genetic life into crops to fight off plagues and pests.[41]

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corporations made gifts; however, a $15 million infusion of funds made by Monsanto to the Center in September of 2006 makes clear that the bulk of those gifts are indeed from Monsanto. Press Release, Monsanto Co., Monsanto Fund Provides Support to Danforth Plant Science Center (Sept. 5, 2006), http://monsanto.mediaroom.com/ index.php?s=43&item=380.

39. PETER PRINGLE, FOOD, INC.: MENDEL TO MONSANTO, THE PROMISES AND PERILS OF THE BIOTECH HARVEST 19 (2003).

40. *Id.* at 21.

41. *Id.* at 22.

While the response to each new genetically engineered product has been visceral among many environmentalists, farmers, and governments, it is less clear what the appropriate regulatory response should be.

Mandatory GMO L&T requirements—which are the basis of the current EC regulatory framework discussed in this Note—are regarded by many as an effective compromise between those who demand outright bans on GMOs and those who believe they require no special regulatory attention at all.[42] The EC's L&T requirements, however, have become a thorn in the side of the U.S. biotech industry, which complains they serve no valid purpose and impose high, unnecessary costs.[43] Indeed some estimates suggest the compliance costs of the EC requirements currently in place would be more than the exports themselves are worth.[44] But consumers throughout the industrialized world appear to be overwhelmingly in favor of such labels.[45] There are indeed a host of important policy goals undergirding mandatory GMO L&T requirements. These include the right of consumers to make informed choices, the political use of market transactions by consumers to express socioeconomic

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42. The "no special regulatory attention" position has been staked out by the U.S. government. In a 1992 Statement of Policy, the Food and Drug Administration (FDA) hewed to the "substantial equivalence" doctrine first developed by the Organization for Economic Cooperation and Development (OECD), which holds that methods of food production are not "material" such that a consumer label is required if there is no significant difference in the characteristics of the end product. Exercise of Federal Oversight Within Scope of Statutory Authority: Planned Introductions of Biotechnology Products into the Environment, 57 Fed. Reg. 6753, 6760 (Feb. 27, 1992); *see also* ORG. FOR ECON. CO-OPERATION & DEV., SAFETY EVALUATION OF FOODS DERIVED BY MODERN BIOTECHNOLOGY: CONCEPTS AND PRINCIPLES 14–16 (1993) (outlining the theory of "substantial equivalence"); Douglas A. Kysar, *Preferences for Processes: The Process/Product Distinction and the Regulation of Consumer Choice*, 118 HARV. L. REV. 525, 557–62 (2004) (noting that federal agencies continue to regulate GMOs "under a pastiche of existing statutes"); Peter Burchett, *A Castle in the Sky: The Illusory Promise of Labeling Genetically Modified Food in Europe*, 23 PENN. STATE INT'L L. REV. 173, 182 (2004) (maintaining that the equivalence doctrine "prevent[s] deception").

43. *U.S. Pressures Europe to Drop GMO Labeling Rules*, ENVTL. NEWS SERVICE, Jan. 16, 2002, http://www.ens-newswire.com/ens/jan2002/2002-01-16-04.asp (quoting Monsanto's position statement that "[p]roducts from biotechnology crops do not pose any new or unique risks . . . . [Labels] could mislead consumers by implying that there is a risk"). *See also* Burchett, *supra* note 42, at 192–93 (arguing that segregation and labeling requirements would impose unacceptably heavy costs throughout the supply chain). For an unfavorable critique of ecolabeling generally, see JULIAN MORRIS, THE INSTITUTE OF ECONOMIC AFFAIRS, GREEN GOODS? CONSUMERS, PRODUCT LABELS AND THE ENVIRONMENT (1997).

44. Paarlberg et al., *supra* note 26, at 7.

45. Peter W.B. Phillips & Heather McNeill, *Labelling for GM Foods: Theory and Practice*, *reprinted in* VITTORIO SANTANIELLO ET AL., MARKET DEVELOPMENT FOR GENETICALLY MODIFIED FOODS 246 (2002) (citing an OECD study finding that 94% of consumers in the UK, 74% in the EU, 91% in Australia and New Zealand, 83–99% in Canada, and 45–93% in the U.S. (depending on the phrasing of the question) were in favor of labeling). *But see* SMYTH ET AL., *supra* note 21, at 50 (citing one study purportedly proving that, "unprompted, only 2% of citizens in surveys call for mandatory GMO labeling").

values,[46] the inequitable result of shifting costs onto non-GMO producers to label their products as such, and the value of GMO labeling as a balanced precautionary approach that achieves environmental protection in a manner not unduly restrictive of trade. This Note's defense of the EC's mandatory GMO L&T requirements on legal grounds is thus more fundamentally rooted in a normative premise that such laws serve an important democratizing function in the increasingly obscure power structures of global food networks.

B. The WTO and the Trade-Environment Dilemma

The WTO is an international organization that came into existence on January 1, 1995, at the completion of the Uruguay Round of Negotiations (1986–1994) between the 128 signatory nations to a predecessor treaty, the General Agreement on Tariffs and Trade (GATT).[47] In its own words, the WTO is "the only international organization dealing with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably and freely as possible."[48] The WTO, with its foundation in the GATT legal framework, imposes a collection of *disciplines* on its members to encourage international economic exchange and discourage domestic economic protectionism in order to optimize efficiency in the global economy.[49]

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46. Kysar, *supra* note 42, at 598 (defending the right of individual consumers to make "moral objections to extraterritorial conditions, none of which tangibly impact a domestic nation's environment or threaten physical harm to its citizens, but many of which might viscerally impact the willingness of consumers in that nation to accept imported goods").

47. WTO, What is the WTO?, http://www.wto.org/english/thewto_e/whatis_e/whatis_e.htm (last visited Dec. 3, 2007). The foundational document of the WTO is the *Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations*, Apr. 15, 1994, 33 I.L.M. 1125.

48. World Trade Organization, The WTO in Brief, http://www.wto.org/english/thewto_e/whatis_e/inbrief_e/inbr00_e.htm (last visited Dec. 3, 2007). The WTO, like the GATT before it, is founded upon the theory of "comparative advantage," a concept first articulated by the English economist David Ricardo nearly 200 years ago. DAVID RICARDO, ON THE PRINCIPLES OF POLITICAL ECONOMY AND TAXATION (1817). This theory, which still enjoys popularity among economists, holds that the unique circumstances of each country give it an advantage over other countries in producing certain products. Because each country is better at producing one type of product rather than another, it is mutually beneficial for all countries to specialize their economy and trade with other countries for their specialized products. By allocating production tasks to the countries able to accomplish them without sacrificing more valuable productive activity (that is, with the lowest opportunity cost), efficiency is maximized, and each trade partner becomes commensurately wealthier. *See generally* CHRIS WOLD ET AL., TRADE AND THE ENVIRONMENT: LAW AND POLICY 25–35 (2005) (explaining the theory and discussing its strengths and weaknesses); P.K. RAO, THE WORLD TRADE ORGANIZATION AND THE ENVIRONMENT 6–15 (2000) (surveying the development of the theory and discussing late 20th Century scholarship establishing that empirical data reveal deficiencies in its predictive force).

49. The basic trade rules enforced by the WTO are set forth in the GATT 1947. General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194 [hereinafter GATT

These rules operate similarly to the Dormant Commerce Clause of the United States Constitution.[50] That is, they create a loose type of "customs union" within which member states may not impose tariffs or other barriers to commerce in order to protect domestic interests. Not unlike the jurisprudence of the dormant Commerce Clause in the United States, however, these rules against protectionism can have a downward-ratcheting effect on public health and environmental regulations.[51] A WTO member upset that another member may be imposing trade barriers to protect domestic constituencies has legal recourse under the WTO's Dispute Settlement Understanding (DSU) to challenge the law—referred to as a "measure" in WTO parlance—as a violation of WTO trade rules and may gain the right to impose trade sanctions on the other member equal to the "nullification and impairment" of trade rights suffered by itself.[52] However, when the alleged trade barrier is a public health or environmental protection law, rules to protect the public welfare end up exposed to a rigorous level of scrutiny in the WTO. As some have wryly observed, there is no reciprocal approach in any international forum when it comes to the environmental impact of economic policies.[53]

1947], *available at* http://www.wto.org/english/docs_e/legal_e/gatt47_01_e.htm. These obligations must be read in conjunction with subsequent modifications, especially GATT 1994, which supersedes GATT 1947. All significant WTO agreements, official texts and documents are available at the WTO website. WTO Legal Texts, http://www.wto.org/english/docs_e/docs_e.htm (last visited Nov. 6, 2007).

50. U.S. CONST., art. I, § 8, cl. 3; *see also* WOLD ET AL., *supra* note 48, at 252–64 (providing excerpts from three well-known Dormant Commerce Clause cases); City of Philadelphia v. New Jersey, 437 U.S. 617 (1978) (holding New Jersey's ban on waste imported from out of state invalid under the Commerce Clause); Chem. Waste Mgmt., Inc. v. Hunt, 504 U.S. 334, 339–40 (1992) ("No state may attempt to isolate itself from a problem common to the several States by raising barriers to the free flow of interstate commerce."); Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456, 470–74 (1981) (upholding state law that did not discriminate on its face between in-state and out-of-state interests, even though it would be of benefit to in-state producers).

51. *Compare City of Philadelphia*, 437 U.S. at 631 (Rehnquist, J., dissenting) (declaring that the majority's holding forces New Jersey to make a "Hobson's choice" between prohibiting "*all* landfill operations" or accepting "waste from every portion of the United States, thereby multiplying the health and safety problems which would result if it dealt only such wastes generated within the State") (emphasis in original), *with* Panel Report, *United States—Restrictions on Imports of Tuna (Tuna/Dolphin I)*, ¶ 5.15, DS21/R (Sept. 3, 1991) (unadopted), *reprinted in* 30 I.L.M. 1594 (finding the United States in violation of the GATT for discriminating between tuna caught in a dolphin-safe manner and tuna caught in a manner that kills dolphins, because the end product was the same).

52. Understanding on Rules and Procedures Governing the Settlement of Disputes, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 2, Legal Instruments—Results of the Uruguay Round, 33 I.L.M. 1125 [hereinafter DSU], *available at* http://www.wto.org/english/docs_e/legal_e/28-dsu_e.htm; *id.* art. 3.8 (defining prima facie case for "nullification and impairment"); *id.* arts. 21, 22 (outlining procedures for redress and compensation of aggrieved members).

53. *See* Steve Charnovitz, *Improving the Agreement on Sanitary and Phytosanitary Standards*, *in* TRADE, ENVIRONMENT, AND THE MILLENNIUM 185–86 (Gary P. Sampson & W. Bradnee Chambers

Considering the emphasis on warding off protectionist discriminatory measures in the basic WTO trade disciplines, a complaint against the EC's GMO L&T requirements under those trade rules alone would probably not prevail.[54] Despite the fact that the EC's L&T regulations tend to benefit European farmers who do not use GMOs, and they hinder farmers in the U.S. and elsewhere who do use GMOs, the regulations are not discriminatory on their face. They do not single out U.S. GMO crops or foreign GMO crops due to their place of origin but on the basis of their being genetically modified.

In this respect, the GMO controversy resembles the situation in one of the classic dormant Commerce Clause cases, *Minnesota v. Clover Leaf Creamery Co.*[55] In that case, the Supreme Court upheld a state law enacted to promote resource conservation that banned the use of non-returnable plastic milk containers.[56] Even though the law would clearly prove beneficial to many in-state pulpwood firms (who produced permitted milk containers) and hurt out-of-state plastic milk container manufacturers, the Court refused to treat the law as a protectionist measure. The Court stated that "the Commerce Clause 'protects the interstate market, not particular interstate firms, from prohibitive or burdensome regulations.' A nondiscriminatory regulation serving substantial state purposes is not invalid simply because it causes some business to shift from a predominantly out-of-state industry to a predominantly in-state industry."[57] Likewise, in adjudicating any claims against the GMO labeling requirements, a panel should consider that just because benefits accrue to

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eds., 2d ed. 2002) ("Aside from the *SPS Agreement* and the review of environmental measures under GATT article XX, the scientific basis for government regulations is not being scrutinized elsewhere in the WTO system . . . . Is there a scientific basis for the WTO to require governments to issue patents for at least 20 years?"). *But see* Jeffrey L. Dunoff, *Resolving Trade-Environment Conflicts: The Case for Trading Institutions*, 27 CORNELL INT'L L.J. 607, 608 (1994) ("[T]he GATT is not equipped to become involved in the tasks of reviewing national environmental priorities, setting environmental standards or developing global policies on the environment.") (quoting the Report by Ambassador Hidetoshi Ukawa, Chairman, Group on Environmental Measures and International Trade, 49th Session of the GATT Contracting Parties, at 2 (Feb. 2, 1994)).

54. *See* GATT 1947, *supra* note 49, art. I.1 (according Most Favored Nation treatment to all "like products"), art. III.1 (forbidding legal barriers that afford protection to domestic production), art. III.2 (requiring "treatment no less favourable than that accorded to like products of national origin").

55. Minnesota v. Clover Leaf Creamery Co, 449 U.S. 456 (1981).

56. *Id.* at 470–73.

57. *Id.* at 474 (quoting Exxon Corp. v. Maryland, 437 U.S. 117, 127–28 (1978) (citations omitted)).

domestic firms through operation of a nondiscriminatory measure, such benefits do not prove *ipso facto* protectionism.[58]

Indeed, a GATT panel made a similar determination in 1991 in the only dispute involving food labeling tried under the GATT disciplines, *U.S.—Restrictions on Imports of Tuna*.[59] The question arose from a voluntary labeling scheme the United States implemented in conjunction with its import ban on tuna caught in a manner that killed significant numbers of dolphins.[60] The U.S. measure, the Dolphin Protection Consumer Information Act,[61] forbade use of a "Dolphin Safe" label for tuna not caught according to dolphin protective fishing methods.[62] Applying the disciplines of GATT 1947, the panel found no violation of the marking requirements of article IX:1, which obligates members to apply the same marking standards for "like" products "no less favorable than the treatment accorded to 'like' products of any third country."[63] The panel did not find any intention to discriminate against the complainant, Mexico, or any other country, but only an intention to save dolphins.[64] In addition, the panel noted, "[A]ny advantage which might possibly result from access to this label depends on the *free choice by consumers* to give preference to tuna carrying the 'Dolphin Safe' Label."[65]

The *Tuna/Dolphin* dispute was resolved under GATT 1947. It predates the WTO and two additional agreements adopted at the end of the Uruguay negotiating round in 1995: the *Agreement on the Application of Sanitary and Phytosanitary Measures* (*SPS Agreement*)[66] and the *Agreement on Technical Barriers to Trade* (*TBT Agreement*).[67] These two agreements

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58. *But see id.* at 476 n.2 (Powell, J., concurring in part and dissenting in part) ("Under the Commerce Clause, a court is empowered to disregard a legislature's statement of purpose if it considers it a pretext.").

59. *Tuna/Dolphin I*, *supra* note 51, ¶¶ 5.41–5.44; *see also generally* Kysar, *supra* note 42, at 541–46 (discussing the questionable product/process distinctions underlying the panel's decision in *Tuna/Dolphin I*).

60. Kysar, *supra* note 42, at 548–49.

61. Dolphin Protection Consumer Information Act, Pub L. No. 101-627, § 901, 104 Stat. 4465 (1990) (codified as amended at 16 U.S.C. § 1835 (2006)).

62. *Id.* § 1385(d)(1).

63. GATT 1947, *supra* note 49, art. IX:1.

64. *Tuna/Dolphin I*, *supra* note 51, ¶ 5.43.

65. *Id.* ¶ 5.42 (emphasis added).

66. *Agreement on the Application of Sanitary and Phytosanitary Measures*, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, Legal Instruments—Results of the Uruguay Round, 33 I.L.M. 1125 (1994) [hereinafter *SPS Agreement*]; *see also* ARTHUR APPLETON, ENVIRONMENTAL LABELLING PROGRAMMES: INTERNATIONAL TRADE LAW IMPLICATIONS 135 (1997) (noting that an earlier version of the *SPS Agreement* drawn up during the Tokyo Round was not binding on all parties to GATT 1947).

67. *Agreement on Technical Barriers to Trade*, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, Legal Instruments—Results of the Uruguay

took the WTO's disciplines governing domestic, environmental, and public health regulations beyond the relatively narrow concern of preventing economic protectionism and interposed new bases for WTO invalidation: (1) whether an allegedly trade-restrictive public health measure was grounded in objective science; and (2) whether it conformed to internationally recognized health standards.[68] If not, the measure would be subject to WTO invalidation through the dispute settlement process.

The GATT contained its own short but powerful provisions to protect laws for public health, morals, and the environment. GATT article XX(b) provides an exception for domestic laws that would otherwise be invalidated under other GATT provisions to the extent they are "necessary to protect human, animal or plant life or health."[69] Article XX(a) exempts from WTO invalidation those laws "necessary to protect public morals."[70] And article XX(g) protects laws "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production and consumption."[71]

The *SPS Agreement* was intended to supplement article XX's provisions with more details on the scope of permissible public health and environmental regulations.[72] In reality the *SPS Agreement* has done little more than set stricter standards for what types of public welfare regulations are acceptable in the WTO, meanwhile eclipsing and eviscerating the article XX exceptions on which it is based.[73]

Round, 33 I.L.M. 1125 (1994) [hereinafter *TBT Agreement*]. The *TBT Agreement* may be implicated in the WTO's adjudication of a future dispute involving GMOs. A full analysis of whether GMO L&T regulations would be covered by that Agreement, and if so, whether they would be valid under it, is outside the scope of this Note.

68. *See* Kysar, *supra* note 42, at 550–51 ("[W]hereas previously countries did not violate GATT rules 'as long as product standards [were] applied nondiscriminatorily,' now such standards must conform to the dictates of the *TBT* and *SPS Agreements* even when they are applied in a nondiscriminatory manner.") (quoting John J. Barcelo III, *Product Standards to Protect the Local Environment—the GATT and the Uruguay Round Sanitary and Phytosanitary Agreement*, 27 CORNELL INT'L L.J. 755, 761 (1994)); *see also* David Winickoff et al., *Adjudicating the GM Food Wars: Science, Risk, and Democracy in World Trade Law*, 30 YALE J. INT'L L. 81, 122 (2005) (questioning the ability of the WTO to make sound scientific evaluations of domestic public health and environmental laws and recommending as a "proper direction for judicial doctrine [in the WTO] . . . enhance[ing] the sensitivity of judicial tools for detecting protectionism masquerading as health and environmental values, while preserving cultural autonomy in important societal domains").

69. GATT 1947, *supra* note 49, art. XX(b).

70. *Id.* art. XX(a).

71. *Id.* art. XX(g).

72. Hal S. Shapiro, *The Rules that Swallowed the Exceptions: The WTO SPS Agreement and its Relationship to GATT Articles XX and XXI: The Threat of the EU-GMO Dispute*, 24 ARIZ. J. INT'L & COMP. L. 199, 201 (2007).

73. Hal Shapiro, who served as Associate General Counsel to USTR, writes:

The *SPS Agreement* applies to sanitary and phytosanitary (SPS) measures, laws passed by WTO members for the *purpose* of protecting plant, animal, or human life or health.[74] Note that SPS measures are defined in part by their purpose. This is significant, for as discussed below, this forced the *Biotech* Panel—for the first time in the Dispute Settlement Body's (DSB's) *SPS Agreement* jurisprudence—to analyze the extent of its jurisdiction over domestic regulations like the EC's GMO directives, which arguably serve *multiple* purposes, some relating to the environment and public health but others not.[75] The *SPS Agreement* requires, among other things, that "[m]embers shall ensure that any sanitary or phytosanitary measure is applied only to the extent necessary to protect human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence."[76] Article 3.1 of the *SPS Agreement* requires that "[m]embers shall base their sanitary or phytosanitary measures on international standards, guidelines or recommendations, where they exist."[77] Article 5.1 requires that SPS measures be "based on an assessment

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> What appears to have been an effort to bring clarity to the scope and application of a given exception to GATT obligations has become the source of a host of new possible violations and, importantly, the resulting new rules reject the application of other GATT exceptions that previously applied to food or animal health or safety measures. As a result, a measure that is subject to the SPS Agreement cannot be defended on a number of grounds that were available in the past. These defenses covered areas such as national security, environmental protection and other broad policy interests, but also more parochial trade concerns such as guarding against products made by prison labor, enforcing domestic customs laws, or maintaining adequate domestic supplies of important goods.

Id. at 201–02.

74. Annex A(1) of the *SPS Agreement* provides a formal definition of an SPS measure as one applied:

> (a) to protect animal or plant life or health within the territory of the Member from risks arising from the entry, establishment or spread of pests, diseases, disease-carrying organisms or disease-causing organisms;
> (b) to protect human or animal life or health within the territory of the Member from risks arising from additives, contaminants, toxins or disease-causing organisms in foods, beverages or feedstuffs;
> (c) to protect human life or health within the territory of the Member from risks arising from diseases carried by animals, plants or products thereof, or from the entry, establishment or spread of pests; or
> (d) to prevent or limit other damage within the territory of the Member from the entry, establishment or spread of pests.

SPS Agreement, *supra* note 66, at Annex A(1).

75. *Biotech Report*, *supra* note 17, ¶ 7.150 ("The issue is whether a law, or a requirement contained therein, may, if it meets the applicable conditions, be considered to incorporate an SPS measure as well as a distinct measure which fails to be assessed under a WTO agreement other than the *SPS Agreement*.").

76. *SPS Agreement*, *supra* note 66, art. 2.2.

77. *Id.* art. 3.1.

. . . of the risks to human, animal or plant life or health."[78] The *SPS Agreement* also contains a savings clause that many commentators view as an expression of the precautionary principle.[79] Article 5.7 allows governments to take *interim* SPS measures "[i]n cases where relevant scientific evidence is insufficient," on the condition that they "obtain the additional information necessary for a more objective assessment of risk and review the [SPS] measure accordingly within a reasonable period of time."[80]

To summarize, when the *SPS* and *TBT Agreements* took effect in 1994, the WTO gained a new power to invalidate domestic regulations, even if they are not facially protectionist or discriminatory, on the basis that they do not conform to sound science or are more restrictive than international standards require. It is now an open question whether a WTO panel would invalidate a mandatory ecolabeling scheme such as the one the *Tuna/Dolphin I* Panel found legitimate under GATT 1947. Would a panel adjudicating a dispute implicating the EC's GMO L&T regulations give deference to a regulation whose negative trade impacts are strictly a result of a *free choice by consumers* not to buy GMO products? Or might the WTO wield the *SPS Agreement* to strike down GMO L&T requirements by finding them scientifically unjustified? We turn now to a summary of the Panel's key conclusions in the *Biotech* dispute, whose jurisdictional analysis (discussed in Part II) might present a method by which GMO L&T regulations can avoid analysis under the *SPS Agreement* altogether.

C. Key Holdings in the Biotech *Dispute*

The *Biotech* dispute, resolved by the 2006 DSB Panel Report,[81] has been the most closely watched WTO case of the new millennium. The dispute pits two global economic powerhouses—traditional allies in the cause of trade liberalization—against each other over the question of whether the European restrictions on GMO imports were unjustifiable barriers to trade, or a wisely precautionary approach to a new and risky technology.[82] The Panel reviewed three distinct EC measures: the so-called

78. *Id.* art. 5.1.

79. *See, e.g.*, OREN PEREZ, ECOLOGICAL SENSITIVITY AND GLOBAL LEGAL PLURALISM: RETHINKING THE TRADE AND ENVIRONMENT CONFLICT 143–48 (2004) (interpreting art. 5.7 as an expression of the "precautionary principle" but noting that it essentially imposes two procedural and two substantive requirements on members seeking to invoke it).

80. *SPS Agreement*, *supra* note 66, art. 5.7.

81. *Biotech Report*, *supra* note 17.

82. The Panel did not, however, adjudicate virtually any of the substantive questions at the heart of the GMO debate. *See id.* ¶ 8.3.

"de facto moratorium" on GMO imports caused by a political impasse in Europe, which resulted in a four-year delay in approvals between 1999 and 2003; product-specific denials of approval at the EC level; and EC member-state safeguards banning the entrance of various GMO products into their countries.[83] The Panel found procedural violations of the *SPS Agreement* at the EC level due to the delays in GMO approvals.[84] In addition, the Panel found substantive violations of the *SPS Agreement* at the member state level due to a failure to base the measures on scientific risk assessments.[85] Notably, the Panel did not even discuss the public health, morals, and environmental exceptions of GATT article XX, even though they were raised as defenses by the EC.[86] Instead, the Panel focused exclusively on the *SPS Agreement*—proof of how far the *Agreement* had eclipsed article XX.

At 1100-pages, the Panel Report is far too involved to even attempt summary for the limited purposes of this Note. The *Biotech* dispute did not involve a direct challenge to the EC's L&T requirements, but these requirements were relevant to the threshold jurisdictional issue whether the EC regulations in question, Directives 90/220,[87] 2001/18,[88] and Regulation 258/97,[89] were SPS measures within the definition of the *SPS Agreement*.[90]

> [T]he Panel did *not* examine: whether biotech products in general are safe or not[;] whether the biotech products at issue in this dispute are 'like' their conventional counterparts . . . [;] whether the [EC] has a right to require pre-marketing approval of biotech products[;] . . . whether the [ECs'] approval procedures . . . are consistent with the [ECs'] obligations under the WTO agreements[; or] . . . the conclusions of the relevant EC scientific committees regarding the safety evaluation of specific biotech products.

Id.

83. *Id.* ¶¶ 8.12–8.14.

84. *Id.* ¶¶ 8.14(a), 8.18(a), 8.34(a), 8.38(a), 8.53(a). The EC was found in violation of article 8, which requires members to "observe the provisions of Annex C. Annex C(1)(a) requires that procedures to check and ensure the fulfillment of sanitary or phytosanitary measures be "undertaken and completed without undue delay."

85. *Id.* ¶¶ 8.22(a), 8.42(a), 8.57(a). The Panel found violations of articles 5.1, 5.7, and the second and third requirements of 2.2. *See supra* notes 76–79 and accompanying text for a discussion of these articles.

86. *Biotech Report*, *supra* note 17, ¶ 4.386.

87. Council Directive 90/220/EEC, 1990 O.J. (L 117) 15 [hereinafter Directive 90/220]; *see also* Council Directive 97/35/EC, 1997 O.J. (L169) 72-3 (amending Annex III of Directive 90/220).

88. Council Directive 2001/18/EC, 2001 O.J. (L 106) 1 [hereinafter Directive 2001/18].

89. Council Regulation 258/97, 1997 O.J. (L 43) 1 [hereinafter Regulation 258/97].

90. This issue is dealt with in detail below. The time it took the EC to develop its labeling requirements was tangentially related to the issue of whether the delays in approval of GMO imports into Europe were justified. The Panel answered that issue in the negative, and held that the Group of Five countries (Denmark, Italy, France, Greece, and Luxembourg) had precipitated a de facto moratorium on imports of GMO products into the EC by halting approval processes until the EC adopted new labeling and traceability requirements. *Biotech Report*, *supra* note 17, ¶ 7.1271(b).

Thus even with a biotech-friendly ruling from the WTO calling for the EC to bring its approval procedures into conformity with the *SPS Agreement*, the EC's current L&T requirements remain intact. The *Biotech Report* offers some hints as to how a future WTO panel might handle a claim against the EC's GMO L&T requirements. In particular, the Panel seemed to leave open the possibility that any multipurpose regulation that includes purposes covered under the WTO agreements, as well as those not covered, could not be required by the WTO's Dispute Settlement Body (DSB) to be withdrawn or revised if that would frustrate the non-covered purposes.

In other words, based on the limited purposes of the *SPS Agreement*, the DSB apparently and uncharacteristically conceded that there may be limits to its *SPS* jurisdiction. Such jurisdictional limits would provide a much needed check on the *SPS Agreement*'s wrecking-ball like trajectory through the GATT article XX(b) health and environment exceptions it was meant to support. In the case of the EC's GMO L&T laws, should the U.S. initiate a WTO dispute resolution process, whether on the basis of the "Liberty Link" controversy or some other, the EC has a strong legal argument for the legitimacy of the GMO L&T laws under WTO rules on the grounds that they achieve valid legislative objectives outside the narrow scope of the *SPS* and *TBT Agreements*.

II. A JURISDICTIONAL DEFENSE OF GMO LABELING AFTER THE *BIOTECH* REPORT

A. What Is an SPS Measure?

Recall that SPS measures are defined in part by the purposes they serve; we may also agree for the sake of argument that laws often serve multiple purposes.[91] Thus the *SPS Agreement*'s manner of definition proved problematic for the Panel in the *Biotech* dispute, which focused on three EC regulations: Directive 2001/18 (2001/18); its predecessor Directive 90/220 (90/220); and Regulation 258/97 (258/97).[92] All three regulations contained language in their statements of purpose or preambular paragraphs that suggested they served multiple purposes. Article 1 of Directive 2001/18, which governs deliberate releases of GMOs into the environment or their

91. *See supra* notes 74–75 and accompanying text.

92. Directive 90/220 will not be discussed in depth as it was superseded by Directive 2001/18, the two contained similar language, and the Panel directed its focus to the latter. *See* Directive 2001/18, *supra* note 88 (repealing 90/220) and *Biotech Report*, *supra* note 17, ¶ 7.382 n.518 (noting a slight difference between the two in that 90/220 did not require labels to explicitly state a GMO to be present).

placement on the market, states a purpose "to protect human health and the environment."[93] The preamble, however, contained broader language on the need to "provide information to the public,"[94] "to ensure that the presence of GMOs . . . is appropriately identified,"[95] and to establish a public consultation process on the "ethical issues" of biotechnology use generally.[96]

Regulation 258/97, which governed placement onto the market of "novel" foods and ingredients, was even more clearly intended to serve multiple purposes than 2001/18. Article 3 of 258/97 lists three prohibitions on novel foods: they may not "present a danger for the consumer, mislead the consumer, [or] differ from foods or food ingredients which they are intended to replace to such an extent that their normal consumption would be nutritionally disadvantageous for the consumer."[97] Furthermore, the preamble of 258/97 stated that certain "populations" ethically opposed to the consumption of GMOs should be informed of their presence in order that they might avoid purchasing products containing them,[98] and that food suppliers retain the right to inform consumers through labeling that their products do not contain GMOs.[99]

Relying on the fact that both 2001/18 and 258/97 appeared to serve multiple purposes, the EC argued that in situations where a WTO member passes an act serving multiple purposes, at least one of which is within the definition of an SPS measure and at least one of which is not, then the act "contains or includes" but "is not itself an SPS measure."[100] The EC used this conception of the relationship between "measures" and "acts" (the former are incorporated by the latter, and they may incorporate more than one) to conclude that "[w]hen a WTO member adopts a single, indivisible act that pursues multiple legitimate objectives, some falling under the *SPS Agreement* and some falling under other WTO Agreements, that member cannot be directed to withdraw or revise its measure unless it is found to be inconsistent with *all* relevant agreements."[101]

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93. Directive 2001/18, *supra* note 88, art. 1.

94. *Id.* pmbl. ¶ 27.

95. *Id.* ¶ 40; *see also Biotech Report*, *supra* note 17, ¶ 7.385 n.521 (noting the phrase "appropriately identified" does not make clear whether the purpose of identification is protection of human health or the environment or some other purpose).

96. Directive 2001/18, *supra* note 88, pmbl. ¶¶ 57–58, 60.

97. Regulation 258/97, *supra* note 89, art. 3.

98. *Id.* pmbl. ¶ 8.

99. *Id.* ¶ 10.

100. *Biotech Report*, *supra* note 17, ¶ 4.754.

101. *Id.* ¶ 4.753.

The Panel ultimately accepted this view.[102] At least it agreed that where one regulatory "act"—which the Panel termed a "requirement," following language in the *SPS Agreement*[103]—serves multiple purposes, not all of which are SPS purposes, it should be treated as containing both an SPS measure and a non-SPS measure, rather than being an SPS measure alone.[104] The Panel also held that, contrary to the positions of the United States and Argentina, this conclusion was not inconsistent with article 1.5 of the *TBT Agreement*, which states, "[T]he provisions of [this agreement] do not apply to sanitary and phytosanitary measures as defined in Annex A."[105] The Panel interpreted that provision to mean that to the extent a "requirement" imposed by a member was an SPS measure within the definition of Annex A, the *TBT Agreement* would not apply. This is not to say that an act or requirement serving both SPS and non-SPS purposes could not be evaluated under the *TBT Agreement* should its non-SPS purposes place it within the definition of a TBT measure.[106]

The Panel's final rationale for its conclusion was based on a refutation of the alternative approach to enactments serving multiple purposes, which would necessitate that a "requirement" embodying both SPS and non-SPS measures could *only* be defended as an SPS measure.[107] The Panel supposed that member countries faced with this circumstance "would not want to forgo the opportunity of defending the requirement at issue also as a non-SPS measure."[108] If members wanted to enact a "requirement" for multiple purposes, and wanted to be able to argue that despite an SPS violation, the "requirement" still served other legitimate purposes, they could "enact[] the requirement at issue twice, either in different laws with a statement of the appropriate purpose or in the same law as separate provisions with a statement of their different purpose."[109] The enactments could theoretically be identical in every respect except for their respective statements of purpose. If one law were invalidated under the *SPS Agreement*, the other—which imposes the same requirement but for a different purpose—would still stand.[110]

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102. *See id.* ¶ 7.165 ("[O]ur view is premised on the circumstance that the requirement at issue could be split up into two separate requirements which would be identical to the requirement at issue, and which would have . . . a different purpose which would provide an independent basis for imposing the requirement.").

103. *SPS Agreement*, *supra* note 66, Annex A(1).

104. *Biotech Report*, *supra* note 17, ¶ 7.165.

105. *Id.* ¶ 7.167.

106. *Id.*

107. *Id.* ¶¶ 7.168–7.171.

108. *Id.* ¶ 7.169.

109. *Id.*

110. *Id.*

This was merely a *reductio ad absurdum*. The Panel was cognizant that such an approach would be confusing and "the result would be a more fragmented domestic legal order."[111] The Panel concluded that it would not force upon members an absurd choice between passing laws multiple times with different statements of purpose or opening themselves to "legal risk" in the WTO.[112]

B. Were the EC L&T Requirements SPS Measures Only or Something More?

The Panel's discussion of the jurisdictional question of how a member's domestic regulation should be treated if it was found to contain both SPS and non-SPS measures, while arcane, was relevant to its subsequent analysis of the L&T requirements found in Directive 2001/18 and Regulation 258/97. If the L&T requirements were found to serve purposes not covered by the *SPS Agreement* or any other WTO agreement, then the Panel seemed to imply the regulations would be upheld to the extent they served those other purposes.[113] This in turn will be relevant to any future case brought against the EC challenging its current GMO L&T requirements in Regulations 1829/2003[114] and 1830/2003,[115] the purposes of which will be discussed below.

The Panel addressed the question whether the L&T requirements of 2001/18 and 258/97 were SPS measures, and if so, whether they might also contain non-SPS measures.[116] The L&T requirements were not challenged by the complaining parties; however, their status under the WTO agreements was relevant to the questions of jurisdiction and remedy, particularly if those requirements were found to serve non-SPS purposes.[117]

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111. *Id.*

112. *Id.* ¶ 7.171. One wonders whether the Panel really did believe it would be within its power to require members to pass multiple enactments of the same legislation on the basis of judicial economy in the WTO.

113. *Id.* ¶ 7.173. The Panel did not make this explicit. It merely noted that separating out the purposes of EC GMO rules "may have implications for the implementation of a possible adverse [Dispute Settlement Body] ruling in this dispute." *Id.*

114. Council Regulation 1829/2003, 2003 O.J. (L 106) 1 [hereinafter Regulation 1829/2003].

115. Council Regulation 1830/2003, 2003 O.J. (L 268) 24 [hereinafter Regulation 1830/2003].

116. It is important to stress again that the L&T requirements were not being challenged in themselves. The analysis of labeling and traceability was only directly relevant to the Panel's jurisdictional conclusions with respect to 258/97; the analysis of labeling requirements under 2001/18 should properly be considered obiter dicta. *See Biotech Report*, *supra* note 17, ¶ 7.381 (justifying its analysis by noting that "consistency requires" the Panel to decide whether the labeling requirements of 2001/18 are SPS Measures).

117. The non-SPS purposes served by the EC GMO rules became relevant to the remedial actions the Panel recommended for the de facto moratorium generated by implementation of the

The Panel concluded that, based on the statement of purpose in article 1 of Directive 2001/18 ("to protect human health and the environment"), that law was an SPS measure within the definition of Annex A(1)(a), (b), and (d),[118] because 2001/18 "is applied to protect human health and the environment from possible unanticipated effects of GMOs."[119] The Panel also found that "the record does not contain sufficient indications of a purpose different from, or additional to, protection of human health and the environment."[120] In reaching this conclusion, the Panel was clearly discounting language in 2001/18's preamble regarding ethical considerations, provision of consumer information, and identification of GMO presence.[121] Had these purposes been placed explicitly in the statement of objectives found in article 1 of 2001/18, rather than simply as preambular language, the Panel may have concluded that 2001/18 did serve non-SPS purposes in addition to SPS ones.

The Panel pointed out that 2001/18's L&T requirements only came into play after a GMO product had been found to be safe for human health and the environment, and thus "may not at first glance appear to be a measure that would fall within the scope of the *SPS Agreement*."[122] However, the Panel concluded that the L&T requirements were indeed "rationally related" to the stated purposes of 2001/18 on three separate bases.[123] First, in the event of unanticipated adverse human health or environmental impacts from a GMO product coming to light after it has been approved for the market, the identification requirements would alert product users "to return it to the seller or to discontinue using it."[124] Second, the identification requirements could help lead to the identification of the cause of unusual health or environmental impacts from the use of a GMO product; if the presence of GMOs was not identified, it could be much more difficult to determine the cause of the negative impacts, should there be any.[125] Third, "in situations of unexpected, accidental release of a GMO [product]," identification of GMO presence in the product "will result in

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directives and regulation, as well as the effects of that moratorium on specific GMO products (both measures were found to be in violation of the *SPS Agreement*), because the Panel limited the remedy to bringing the moratorium and the product-specific measures "into conformity with its obligations under the *SPS Agreement*." *Id.* ¶¶ 8.16, 8.20, 8.36, 8.40, 8.55. The Panel was not recommending that the EC regulations be withdrawn altogether. *Id.* ¶ 8.12.

118. *See supra* SPS definition note 74.

119. *Biotech Report*, *supra* note 17, ¶ 7.391.

120. *Id.*

121. *See supra* text accompanying notes 93–95.

122. *Biotech Report*, *supra* note 17, ¶ 7.384.

123. *Id.* ¶ 7.386.

124. *Id.*

125. *Id.* ¶ 7.387.

consent holders and competent authorities being more promptly and more effectively informed [of potential consequences of the incident]."[126] Note that the Panel deduced these objectives from the overall objective of 2001/18, which the Panel concluded did not include any purposes beyond protection of human health and the environment.[127] In this connection, however, the Panel did point out that Annex A(1) of the *SPS Agreement* references "labeling requirements *directly related to food safety*."[128] The labeling requirements of 2001/18 were covered by the *SPS Agreement* because they were for the protection of human health and the environment. However, in a footnote, the Panel acknowledged that the language in Annex A(1) permits an inference "that some food-related labeling requirements would not be subject to the *SPS Agreement*, for example, food labeling required to provide quality assurance, volume of contents, *or to reflect consumer preferences or moral considerations*."[129]

The Panel next analyzed 258/97 to determine its purposes. It relied solely on the objectives listed in article 3 of that regulation to determine these.[130] The objectives were that foods within the scope of the regulation not "present a danger for the consumer, mislead the consumer, or differ from foods or food ingredients which they are intended to replace to such an extent that their normal consumption would be nutritionally disadvantageous for the consumer."[131] The Panel found the first objective to be an SPS measure under Annex A(1)(b);[132] however, the second and third objectives were not. The Panel concluded that "not misleading the consumer" for the purpose of preventing harm to the consumer was covered by the first objective of 258/97.[133] Therefore, labeling for the purpose of not misleading the consumer must be for some other objective, namely,

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126. *Id.* ¶ 7.388.

127. *Id.* ¶ 7.391. "We have also observed that the Panel record does not contain sufficient indications of a purpose different from, or additional to, the protection of human health and the environment." *Id.*

128. *Id.* ¶ 7.390 n. 527 (emphasis added).

129. *Id.* (emphasis added).

130. *Id.* ¶ 7.395. As with 2001/18, the Panel did not rely on the Preamble of 258/97 for clues as to its purposes. The preamble expressed concern, inter alia, that "defined population groups associated with well established practices regarding food should be informed when the presence in a novel food of material which is not present in the existing equivalent foodstuff gives rise to ethical concerns as regards those groups." Regulation 258/97, *supra* note 89, pmbl. ¶ 8.

131. *Biotech Report*, *supra* note 17, ¶ 7.395.

132. *Id.* ¶ 7.407. "[T]o the extent [258/97] seeks to protect consumers from dangerous foods, it may . . . be considered as a measure applied to protect the life or health of consumers from risks arising from additives (including antibiotic resistance marker genes), contaminants (*e.g.*, pesticide residues in pesticide-producing or resistant GM plants), or toxins (including allergens) in foods. . . . [It] is covered by Annex A(1)(b)." *Id.*

133. *Id.* ¶ 7.411.

"that those consumers who have a preference for food not containing or consisting of GMOs are not misled into purchasing food containing or consisting of GMOs."[134] This objective, the Panel held, falls outside the definition of an SPS measure under Annex A(1).[135]

The third objective, that food containing GMOs not be "nutritionally disadvantageous" to consumers, was not held to be an SPS measure either.[136] The Panel reasoned that this concern was separate from a concern that genetically modified foods not endanger the life or health of a consumer, an SPS purpose. The latter, however, was fully covered by the first objective found in article 3.[137] Thus, avoiding "nutritional disadvantage" could not be said to be a purpose within Annex A(1), since it was an objective unrelated to protecting "human life or health."[138] The final result of the Panel's analysis of 258/97's purposes was that the regulation, including its labeling requirements, was found to embody one SPS measure and two non-SPS measures.[139]

To summarize, the Panel concluded that both Directive 2001/18 and Regulation 258/97 were SPS measures, but that 258/97 also served non-SPS purposes. The Panel determined (in dicta) that the labeling and traceability requirements in 2001/18 were SPS measures (and only SPS measures) because they were rationally related to the objectives stated in article 1 of 2001/18 (to protect human health and the environment), and there was no evidence they were intended to serve any non-SPS purposes. The Panel determined that 258/97's protocols for labeling novel GMO foods, on the other hand, were non-SPS measures to the extent they were intended to prevent consumers from being "misled" and to alert consumers to "nutritionally disadvantageous" GM substitutes for conventional foods. The rules established by 2001/18 and 258/97 have been amended and augmented by two new EC Regulations on GMO products, 1829/2003 and 1830/2003. We turn now to the stated objectives of these new regulations

134. *Id.* In the accompanying footnote, the Panel qualified this by noting, "We do not mean to suggest that the absence of information about the presence of a GMO would necessarily lead to consumers being misled." *Id.* ¶ 7.411 n.543. The Panel thus seems to have reserved the right to determine in the future that information about the presence of GMOs is not so important that the lack of such information would qualify as being misleading. *Cf.* Foods Derived from New Plant Varieties, 57 Fed. Reg. 22,984, 22,991 (Food & Drug Admin. May 29, 1992) ("To date, FDA has not considered the [recombinant DNA] methods used in the development of a new plant variety . . . to be *material* information within the meaning of section 201(n) of the [Federal Food Drug and Cosmetic Act] [codified at] 21 U.S.C. 321(n).") (emphasis added).

135. *Biotech Report*, *supra* note 17, ¶ 7.412.

136. *Id.* ¶ 7.414.

137. *Id.* ¶ 7.413.

138. *Id.* ¶ 7.414. The reader who finds this distinction questionable would not be alone.

139. *Id.* ¶ 7.416.

in order to determine whether a future WTO Panel might conclude that they serve non-SPS purposes such that they could be maintained despite possible inconsistency with the *SPS Agreement*.

C. The Purposes of 1829/2003 and 1830/2003: SPS Only or Something More?

Regulations 1829/2003 (1829) and 1830/2003 (1830) took force on November 7, 2003.[140] Their enactment and the subsequent approval of Syngenta's Bt-11 maize—a type of GMO corn—signaled the end of the EC's de facto moratorium on GMO products.[141] The new measures were put in place at least in part out of Europe's growing concern about the WTO complaint the United States was initiating at the time.[142] Both 1829 and 1830 were adopted by the European Parliament on September 22, 2003, just four months after the U.S. and Canada requested consultations with the EC as part of the WTO's dispute settlement process on May 13, 2003.[143]

Regulation 1829 lays out updated procedures for the "authorization and supervision" of GMO food and animal feed.[144] The new procedures were intended to ensure traceability of GMO products throughout the supply

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140. *See* Regulation 1829/2003, *supra* note 114, art. 13 (20 days after publication); Regulation 1830/2003, *supra* note 115, art. 13 (same); *see also* Brian Schwarz, Note, *WTO and GMOs: Analyzing the European Community's Recent Regulations Covering the Labeling of Genetically Modified Organisms*, 25 MICH. J. INT'L L. 771, 780–784 (2004) (providing an overview of the regulations and characterizing them as essentially a "labeling scheme"). For a contemporary analysis of the pending legislation that was enacted in these two Regulations, see generally Scott, *supra* note 16.

141. *See Commission Hopes New Labeling Will Ease GM Approval*, FARMERS GUARDIAN, Apr. 23, 2004, at 4 (noting that the new labeling rules were intended by the European Commission to ease and speed the GMO approval process); *Sticky End for Our Honey Hives?*, WESTERN DAILY PRESS (UK), Apr. 26, 2004, *available at* 2004 WLNR 4215606 (predicting that the impending introduction of GMO crops into the UK would be the effective demise of its organic honey industry because the pollen the bees collect will become GMO-contaminated); *cf.* Paul Geitner (AP), *Europe Begins Enforcing Genetic Food Label Laws*, THE INTELLIGENCER, Apr. 18, 2004, at 6E (claiming that the new labeling laws are stricter because they include highly processed foods in which the genetically modified DNA is no longer present in the final product).

142. *EU Commission to Seek Approval for GMO Corn; Avoids Fight on Coexistence*, INSIDE U.S. TRADE, Oct. 31, 2003, *available at* 2003 WLNR 96031 ("The Commission would like to have a few GMOs approved in the coming months because of the U.S. WTO challenge filed last summer against the moratorium. Having several GMOs newly approved would show that the moratorium is no longer in place and would undercut the U.S. case, sources said."). Neither Regulation 1829 or 1830 was directly at issue in the dispute.

143. *Biotech Report*, *supra* note 17, ¶¶ 7.104–7.105 (and accompanying timeline); *see also* DSU *supra* note 52, art. 4(5) ("In the course of consultations in accordance with the provisions of a covered agreement, before resorting to further action under [the DSU], members should attempt to obtain satisfactory adjustment of the matter.").

144. Regulation 1829/2003, *supra* note 114, art. 1(b).

chain.[145] Article 1 of 1829 states its objective, in part, to "provide the basis for ensuring a high level of protection of human life and health, animal health and welfare, environment *and consumer interests* in relation to genetically modified food and feed, whilst ensuring the effective functioning of the internal market."[146] This language differs from the objectives language of Directive 2001/18 and Regulation 258/97 as it explicitly lists a purpose to serve "consumer interests" that are apart from "protection of human life and health."[147] Those interests are flushed out in other areas of the regulation. Paragraph of the Preamble 17 notes that, "[i]n addition to other types of information to the public provided for in this Regulation, the labeling of products enables the consumer to make an informed choice and facilitates fairness of transactions between seller and purchaser."[148] Paragraph 20 also notes the importance of giving end users the ability to make informed choices.[149] Paragraph 21 of the Preamble explains that "[c]lear labeling . . . meets the demands expressed in numerous surveys by a large majority of consumers, facilitates informed choice and precludes potential misleading of consumers as regards methods of manufacture or production."[150] Paragraph 22 expresses a need to expose any disparate nutritional value between GMOs and conventional foods, "as well as any characteristic or property which gives rise to ethical or religious concerns."[151] Under article 5, governing procedures for applications for authorization, one requirement is "a reasoned statement that the food does not give rise to ethical or religious concerns, or a proposal for labeling it in accordance with article 13(2)(b)."[152] Article 13(2) provides a list of GMO product properties that must be included in a label, such as properties that give rise to "ethical or religious concerns."[153] All of these are arguably non-SPS purposes.

145. *See* Burchett, *supra* note 42, at 185–86 (the regulations are for traceability from "farm to table"); Comment, *A Tale of Two Systems: A Comparison Between U.S. and EU Labeling Policies of Genetically Modified Foods*, 15 SAN JOAQUIN AGRIC. L. REV. 193, 205–06 (2006) (describing 1829's mechanisms in detail); *see* Regulation 1830/2003, *supra* note 115, art. 3 (defining traceability as "the ability to trace GMOs and products produced from GMOs at all stages of their placing on the market through the production and distribution chains").

146. Regulation 1829/2003, *supra* note 114, art. 1 (emphasis added).

147. *Id.*

148. *Id.* pmbl. ¶ 17.

149. *Id.* pmbl. ¶ 20.

150. *Id.* pmbl. ¶ 21.

151. *Id.* pmbl. ¶ 22.

152. *Id.* art. 5(3)(g).

153. *Id.* art. 13(2)(b).

Regulation 1830 lays out additional L&T requirements.[154] Interestingly, 1830 contains no mention of any purposes to be served by the L&T requirements other than the need to protect human life and health and the environment. The stated objective of 1830 is to provide:

> [A] framework for the traceability of products consisting of or containing [GMOs], and food and feed produced from GMOs, with the objectives of facilitating accurate labeling, monitoring the effects on the environment and, where appropriate, on health, and the implementation of the appropriate risk management measures including, if necessary, withdrawal of products.[155]

There is no mention of consumer interests in labeling that go beyond concern for human life or health. Nor is there acknowledgment of ethical or religious considerations, informed decision-making, or fair market transactions in the preamble. Likewise, the definitional and operative sections of 1830 make no mention of these objectives. However, because article 1 explains its objective as providing "a framework for traceability" in order to effectuate the goals of the L&T requirements, the EC could argue this regulation also incorporates the objectives for labeling, as expressed in article 1 of Regulation 1829, which include non-SPS related "consumer interests."

D. A Recommendation to Amend 1829 and 1830

If the EC wants to ensure that these GMO regulations are better insulated from a potentially adverse WTO ruling, it should amend article 1 of 1830 to clearly state that the regulation serves non-SPS purposes, such as ensuring that consumers can make informed choices based on ethical or religious values. The EC would do well to move such language explicitly into article 1 of 1829 as well in order to make as clear as possible that the "consumer interests" served by GMO labeling go well beyond the SPS purposes defined in Annex(A)(1). By highlighting their non-SPS nature, the EC could convince a future WTO panel that these regulations should be

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154. Both 1829 and 1830 recognize that there could be "adventitious [i.e., from an outside source] or technically unavoidable" trace amounts of GMOs appearing incidentally in non-GMO foods. Both regulations exempt products with less than 0.9% GMO content from the labeling requirements. *Id.* art. 12(2); Regulation 1830/2003, *supra* note 115, art. 7(3); *see also* Christopher Booker, *Seeds of Chaos: Who Knows if These Are GMOs?*, SUNDAY TELEGRAPH (UK), Apr. 25, 2004, *available at* 2004 WLNR 4215606 (criticizing the British government for bringing the new regulation into force without having technology available to enforce the restriction).

155. Regulation 1830/2003, *supra* note 115, art. 1.

evaluated by the WTO, if at all, under other agreements or GATT provisions. Indeed, it may even convince a future panel to reinvigorate the basic exceptions for public health, morals, and environmental protection in GATT article XX that should have governed Europe's GMO laws all along.

III. A RECOMMENDATION ON REMEDY: RESOLVING THE DISPUTE, KEEPING THE LABELS[156]

As noted above, the *Biotech* Panel's discussion of the effect on the resolution of a WTO dispute involving a regulation that is both an SPS measure and a non-SPS measure is equivocal.[157] According to the DSU,[158] where a measure has been found to be "inconsistent with a covered agreement, [the panel] shall recommend that the member concerned bring the measure into conformity with that agreement."[159] The Panel in *Biotech* chose not to exercise its discretionary ability to suggest to the EC a method

156. Part III proceeds on the assumption that the *SPS Agreement* is the only WTO agreement implicated in a future dispute over GMO L&T requirements. As discussed above at note 67, jurisdictional analysis of such laws under GATT 1994, the *TBT Agreement*, or any other WTO agreement is outside the scope of this Note. Nonetheless, there is a wealth of literature on the topic. The breadth of jurisdiction of the *TBT Agreement* was made clear in the *European Communities-Sardines* dispute, where the Appellate Body declared that giving a product a name was enough to bring it within the *TBT Agreement*'s scope. Appellate Body Report, *European Communities—Trade Description of Sardines*, ¶ 191, WT/DS231/AB/R (Sept. 26, 2002) (*adopted* Oct. 23, 2002); *see also* WOLD ET AL., *supra* note 48, at 420 (discussing whether ecolabels are within the *TBT Agreement*); Doaa Abdel Motaal, *The Agreement on Technical Barriers to Trade, the Committee on Trade and Environment, and Eco-labelling*, *in* TRADE, ENVIRONMENT, AND THE MILLENIUM 223–24 (1999) (explaining that extensive discussions at the WTO had been held pertaining to eco-labeling, but no decisions had been made); ARTHUR E. APPLETON, ENVIRONMENTAL LABELLING PROGRAMMES: INTERNATIONAL TRADE LAW IMPLICATIONS 91 (1997) ("Because of [the *TBT Agreement*'s] extensive breadth and its explicit applicability to labeling requirements, it is likely to become the single most important portion of the WTO Agreement affecting the use of environmental labeling schemes."); Atsuko Okubo, *Environmental Labeling Programs and the GATT/WTO Regime*, 11 GEO. INT'L ECON. L. REV. 599, 623 (1999) (noting a growing concern that the *TBT Agreement* might be applied to eco-labeling schemes focused on non-product-related process and production methods); Kysar, *supra* note 42, at 551 n.80 (noting that either the *SPS* or *TBT Agreements* might be applied to an ecolabeling scheme). The fact that the *Biotech* Panel focused almost exclusively on the *SPS Agreement* and made no holdings with respect to the *TBT Agreement* suggests that either the DSB or particular WTO members may be trending away from use of the latter in scientific-type trade disputes such as that created by the GMO labeling controversy.

157. *See supra* notes 100–01 and accompanying text.

158. *See* DSU, *supra* note 52.

159. *Id.* art. 19.1; *see also* ANUPAM GOYAL, THE WTO AND INTERNATIONAL ENVIRONMENTAL LAW: TOWARDS CONCILIATION 22 (2006) (noting the preference for "secur[ing] the withdrawal of the [offending] measure").

for bringing its procedures into compliance.[160] The DSU states a preference that measures found inconsistent with WTO obligations be withdrawn or revised by the offending member;[161] however, the EC has officially stated it believes its current GMO regime under Regulations 1829 and 1830 does not violate its WTO obligations.[162] Further complicating the matter is that 2001/18 and 258/97 were not themselves at issue in the *Biotech* dispute, only the de facto moratorium their enforcement (or lack of enforcement) generated. Out of this morass of procedural confusion, at least one question is clear: in the event a future WTO panel finds the EC's L&T regulations embody *both* SPS *and* non-SPS measures, and also that the SPS measures are inconsistent with the *SPS Agreement*, how will the Dispute Settlement Body propose enforcement of a ruling against the measures given the continued validity of their non-SPS purposes?

A. No Guidance from Past WTO Disputes

The issue of appropriate remedy for a law in violation of a WTO agreement that also serves purposes outside WTO jurisdiction appears to be a case of first impression. A survey of how the DSB has handled this jurisdictional-remedial dilemma in previous disputes involving the *SPS Agreement* does not answer the question, but does provide some clues as to how the DSB might proceed. So far, there have only been four major

160. DSU, *supra* note 52, art. 19.1 ("[T]he panel . . . may suggest ways in which the member concerned could implement the recommendations."). The Panel merely stated that it "recommends that the Dispute Settlement Body request the European Communities to bring the general *de facto* moratorium on approvals into conformity with its obligations under the *SPS Agreement*, if, and to the extent that, that measure has not already ceased to exist." *Biotech Report*, *supra* note 17, ¶ 8.16. Thus, the Panel did not even resolve whether there were any outstanding WTO inconsistencies to remedy, much to the consternation of the United States. "Winning the WTO case without achieving any positive changes in the approval process would greatly erode the credibility of the WTO in the eyes of U.S. agriculture." Letter from House and Senate Trade Chairs to USTR, Nov. 13, 2006, *reprinted in* INSIDE U.S. TRADE, *supra* note 19.

161. *See* DSU, *supra* note 52, art. 3.7 ("The provision of compensation should be resorted to only if the immediate withdrawal of the measure is impracticable and as a temporary measure pending the withdrawal of the measure which is inconsistent with a covered agreement."). As a "last resort" the DSB may permit an aggrieved member to impose its own trade barriers against the offending member. *Id.*

162. Press Release, European Commission, Europe's Rules on GMOs and the WTO (Feb. 7, 2006), *available at* http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/06/61 ("The EU remains confident that its regulatory regime over GMOs and GM food and feed is fully compatible with its international commitments including those under the WTO. The US has not at any stage challenged the EU's [current] legal framework.").

disputes under the *SPS Agreement*.[163] None have dealt with the issue of remedy in the context of a measure serving non-SPS purposes.

In *EC—Measures Concerning Meat and Meat Products (Hormones)*, the United States and Canada challenged the EC's bans on beef and other meat derived from animals given hormone treatments.[164] The EC conceded that its regulations on hormone-treated meats were indeed SPS measures under Annex A(1)(b).[165] The *TBT Agreement* did not apply under article 1.5 of that agreement, which precludes TBT claims against measures within the scope of the *SPS Agreement*.[166] Neither the parties nor the Panel addressed whether the regulations at issue might also encompass non-SPS measures. To the contrary, the Panel stressed that the EC "strictly construed [the import ban] as a sanitary measure, for the protection of human life or health."[167] The Appellate Body also failed to address the issue.[168] The Panel found that the EC had violated articles 5.1, 5.5, and 3.1 of the *SPS Agreement* because its bans were not properly based on scientific risk assessments. As a result, the Panel recommended that the DSB request the EC to bring its measures into conformity with the *SPS Agreement*.[169] Because the parties could not reach agreement on the length of time the EC had to bring its measures into compliance, an arbitrator was appointed to determine it.[170] Since the bans had not been found per se invalid, but only invalid due to their inadequate basis in risk assessment, the EC's strategy for compliance was to undertake the proper risk assessments and then implement new legislation based on them.[171] The only question before the arbitrator was the appropriate length of time the EC had to do this.[172] The

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163. One of these disputes between the U.S. and Japan over quarantine on agricultural products provides no analysis worth discussion here. Panel Report, *Japan—Measures Affecting Agricultural Products*, WT/DS76/R (Oct. 27, 1998); Appellate Body Report, *Japan—Measures Affecting Agricultural Products*, WT/DS76/AB/R (Feb. 22, 1999).

164. Panel Report, *European Communities—Measures Concerning Meat and Meat Products (Hormones)*, ¶¶ II.1–4, WT/DS26/R/USA, (Aug. 18, 1997) [hereinafter *Hormones Panel*].

165. *Id.* ¶ VIII.21.

166. *Id.* ¶ VIII.29.

167. *Id.* ¶ VIII.274.

168. *See* Appellate Body Report, *European Communities—Measures Concerning Meat and Meat Products (Hormones)*, ¶ 96, WT/DS26/AB/R, WT/DS48/AB/R (Jan. 16, 1998) (listing issues raised by EC on approval).

169. *See id.* ¶¶ 157–61 (pertaining to article 3.1), ¶¶ 178–92 (pertaining to article 5.1), ¶ 210 (pertaining to article 5.5).

170. Award of the Arbitrator, *European Communities—Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/15, WT/DS48/13 (May 29, 1998), *available at* http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds26_e.htm.

171. *Id.* ¶¶ 33–36.

172. *Id.* Article 21.3 of the DSU provides that "the Member concerned shall inform the DSB of its intentions in respect of implementation of the recommendations and rulings of the DSB. If it is

arbitrator set this at fifteen months, the default time period provided in the DSU.[173] By May 13, 1999, the end of the fifteen-month period, the EC had still not brought its measures into compliance with the *SPS Agreement*.[174] Under the procedures of article 22 of the DSU, the United States was authorized to suspend its GATT and WTO obligations to the EC up to $116.8 million (U.S.), the amount of "impairment and nullification" of trade rights caused by the European bans.[175]

In a second *SPS Agreement* dispute, *Australia—Measures Affecting Importation of Salmon*, Canada sought to compel Australia to lift its restrictions on salmon imports. Australia's restrictions were spurred by its concern that the salmon may carry diseases that would spread among native fauna.[176] The Panel, as in the *EC—Hormones* dispute, did not dwell long on the issue of jurisdiction under the *SPS Agreement*. Indeed, Australia itself *argued* that its regulations were SPS measures under both Annex(1)(a) and (1)(b).[177] The Panel concluded that the Australian measures were most

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impracticable to comply immediately with the recommendations and rulings, the Member concerned shall have a reasonable period of time in which to do so." *Id.* ¶ 38.

173. *Id.* (the fifteen month provision is found in article 21.4 of the DSU). The arbitrator was not swayed by the EC's arguments that it needed additional time to conduct risk assessments (which might provide a scientific basis for retaining the import prohibitions consistent with the *SPS Agreement*).

> It would not be in keeping with the requirement of *prompt* compliance to include in the reasonable period of time, time to conduct studies or to consult experts to demonstrate the *consistency* of a measure already judged to be *inconsistent*. . . . [S]uch considerations are not pertinent to the determination of the reasonable period of time.

Id. ¶ 39 (emphasis added). This reasoning conflicts with the findings of the Panel and Appellate Body; the bans were not per se invalid, but were simply not justified by the risk assessments that had so far been done. Concluding that the time needed for additional risk assessments that might justify the measure should not be included in article 21.4's "reasonable time" for compliance is thus incongruous with the apparently process-focused judgment.

174. Report of the Arbitrator, *European Communities—Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/ARB (July 12, 1999), *available at* http://www.wto.org/english/tratop_e/dispu_e/ cases_e/ds26_e.htm. Note that article 3.7 of the DSU states, "[T]he first objective of the dispute settlement mechanism is usually to secure the withdrawal of the measures concerned if these are found to be inconsistent with the provisions of any of the covered agreements." DSU, *supra* note 52, art. 3.7.

175. *Id.* ¶¶ 83–84.

176. Panel Report, *Australia—Measures Affecting Importation of Salmon*, WT/DS18/R (June 12, 1998) [hereinafter *Salmon Panel*]; Appellate Body Report, *Australia—Measures Affecting Importation of Salmon*, WT/DS18/AB/R (Oct. 20, 1998) [hereinafter *Appellate Salmon Panel*]; *see also* PEREZ, *supra* note 79, at 138 (noting that the case "reflects further erosion in the willingness of the law to engage in pluralistic dialogue with science"); NICOLA NOTARO, JUDICIAL APPROACHES TO TRADE AND ENVIRONMENT: THE EC AND THE WTO 202–07 (2003).

177. *Salmon Panel*, *supra* note 176, ¶ 8.31. This is in sharp contrast to the approach of the EC in the *Biotech* dispute, which sought to limit the application of the *SPS Agreement* to as few of the regulatory components as possible. *Biotech Panel*, *supra* note 17, ¶¶ 7.185–.187.

appropriately defined as SPS measures under Annex (1)(a).[178] Again, no discussion was given to whether the regulations as issue might also encompass non-SPS purposes. The measures were found to violate articles 5.1, 2.2, 5.5, 2.3, and 5.6 of the *SPS Agreement* since they were not based on a valid risk assessment, were thus arbitrary and unjustifiable, and were more trade restrictive than was required.[179] Having found the measures to be inconsistent with the *SPS Agreement*, the Panel called on the DSB to request Australia to bring its measures in line with the Agreement.[180] Australia did not raise as a defense before the Appellate Body that any non-SPS purpose was involved.[181]

The Panel and Appellate Body reports in *Japan—Measures Affecting the Import of Apples* cover the topic of the exact definition of a "measure" in greater depth than the previous reports had.[182] The Panel was faced with the novel question of whether the slew of regulations being challenged by the U.S. were all individually SPS measures each requiring a separate analysis, or whether there was really only one measure at issue instantiated by the different regulations.[183] Japan maintained that the nine requirements at issue could not be considered separately as they were all part of one larger regulatory "system."[184] The United States agreed that it was an "all or nothing" case.[185] In short, the Panel concluded, "[T]here is no legal, logical or factual obstacle to treating the requirements identified by the United States as one single phytosanitary measure within the meaning of the *SPS Agreement*."[186] The Panel noted, however, that since the *SPS Agreement* contained a variety of obligations, and the single measure at issue was multifaceted in application, it could find that some of the Japanese requirements violated the *SPS Agreement* while others did not.[187] Notably, this still does not provide an answer to the problem presented by

178. *Salmon Panel*, *supra* note 176, ¶ 8.37.

179. *Id.* ¶ 9.1.

180. *Id.* ¶ 9.2.

181. *Appellate Salmon Panel*, *supra* note 176, ¶¶ 88–89. The Appellate Body did observe, however, that "the SPS measure at issue can *only* be the measure which is *actually* applied to the product at issue." *Id.* ¶ 103 (overruling the Panel's conclusion that two different regulations for two types of salmon products were merely "two sides of the same coin") (emphasis in original).

182. Panel Report, *Japan—Measures Affecting the Import of Apples*, WT/DS245/R (July 15, 2003) [hereinafter *Apples Panel Report*]; Appellate Body Report, *Japan—Measures Affecting the Import of Apples*, ¶ 15, WT/DS245/AB/R (Nov. 26, 2003).

183. *See Apples Panel Report*, *supra* note 182, ¶ 8.13 (noting that the *SPS Agreement*'s definition of an SPS measure was unavailing to answer this question).

184. *Id.* ¶ 8.15.

185. *Id.* ¶ 8.17.

186. *Id.* ¶ 8.16.

187. *Id.* ¶ 8.19.

the EC's GMO labeling requirements: how to enforce an adverse DSB ruling where the very same requirements serve multiple purposes, some SPS-related, others not. The Panel only resolved that it could choose to untangle and evaluate requirements separately that it originally found to comprise one single SPS measure. Our conundrum is the inverse: different measures within one requirement.

B. Reigning in the WTO: A New Rule for Disputes Involving Non-Covered Measures

The WTO's broadly worded disciplines, particularly the significant new obligations imposed by the *SPS* and *TBT Agreements*, are creating a jurisdictional creep with the potential to gobble all domestic laws that have any impact on international trade.[188] In addition to the WTO's expanded mandate resulting from the agreements produced by the Uruguay Round, the WTO is now recognized as a potent forum for complainant countries interested in expanding their trade. When countries win a dispute, they are guaranteed economic and financial benefits in the form of rights to increase tariffs on imports from the member found in violation.[189] Thus, even though international disputes can be framed as environmental or cultural, as tort cases or criminal cases, they tend to end up in the WTO as trade-related cases because forum-shopping complainant members would be foolish to go anywhere else.[190]

The jurisdiction of the WTO's Dispute Settlement Body is indeed broad and its powers of remediation equally so. Under article 4.7 of the DSU, any member who wishes to convene a panel may do so unless an absolute consensus exists not to. In other words, once a member decides they wish to take a case to the WTO, in practical terms, it cannot be stopped.[191] Furthermore, the threshold for standing in the DSU process is remarkably

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188. *See, e.g.*, *SPS Agreement*, art. 1(1) ("This Agreement applies to all [SPS] measures which may, directly or indirectly, affect international trade."); *see also* Chairman's Summary, UNEP Meeting on Compliance, Enforcement, and Dispute Settlement in Multilateral Environmental Agreements and the WTO, WT/CTE/W/199 (June 26, 2001) (noting that the DSB's "compulsory nature [and] exclusive jurisdiction . . . could lead to the WTO attracting disputes it was not properly equipped to resolve").

189. *See* JAMES CAMERON, *Dispute Settlement and Conflicting Trade and Environment Regimes*, *in* TRADE AND THE ENVIRONMENT 16, 18 (Agata Fijalkowski & James Cameron eds., 1998) (noting the popularity of the WTO forum for giving victorious complainants "benefits which you can cash in").

190. *Id.* at 19. The famous *Shrimp/Turtle* dispute, for example, could have been adjudicated under Asia-Pacific Economic Cooperation (APEC), the Convention on Biodiversity (CBD), the Law of the Sea Convention (LOSC) Tribunal, the Court of Arbitration, or the International Court of Justice (ICJ). *Id.*

191. *Id.* at 135.

low; the member need not even establish that a "legal interest" has been impaired, only that there may be some impact on its international trade.[192] DSB panels do have the power to raise the issue of their own subject matter jurisdiction sua sponte.[193]

However, once a panel has convened, and has found jurisdiction to lie under at least one of the covered agreements, many commentators argue that it does not have jurisdiction to consider other provisions of international law—it only applies WTO law.[194] Thus, the WTO's jurisprudence of its own jurisdiction is unbalanced. There is a very low threshold for a complaining member to establish a panel, and such a panel will have the power to invalidate a domestic law (or at least impose harsh economic penalties for failure to bring it into conformity with WTO disciplines),[195] yet there is little chance the WTO in adjudicating a dispute will consider any legal factors governing member behavior other than its own trade rules. Couple this with the concerns noted above—that the WTO's DSB is a magnet for many disputes that may only implicate trade tangentially (due to its compulsory jurisdiction, efficiency of process, and potential for lucrative trade sanction rights)—and the members of the WTO may confess they have created a black hole forum in the DSB, one that could draw all sorts of disputes into its narrow orbit.

One practical and simple recommendation arises from this apparent inbalance in the WTO's jurisdiction-remedy formula: future WTO panels and the Appellate Body of the DSB should simply refuse to invalidate a member's law or allow for the imposition of sanctions where that law is

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192. *Id.* at 134 (citing Appellate Body Report, *European Communities—Regime for the Importation, Sale and Distribution of Bananas (Bananas III)*, ¶ 132, WT/DS27/AB/R (Sept. 9, 1997)).

193. *Id.*

194. *Id.* at 136. The issue of whether a WTO panel must take into account multilateral environmental agreements (MEAs) came up in the *Biotech* dispute when the EC invoked the Cartagena Protocol on Biosafety to argue it was bound by that instrument to take a precautionary approach to GMO technology. *Biotech Panel*, First Written Submission of the EC, ¶ 4.359 (arguing that the Cartagena Protocol "can assist the Panel in the process of interpreting WTO rules"). The Panel, however, rejected that the Protocol had relevance to the proceeding. It noted that article 31(3)(c) of the Vienna Convention on the Law of Treaties limited the application of non-WTO law to those international laws "applicable in the relations between the parties." *Id.* ¶ 7.68. The Panel interpreted this to mean that, at the least, the other law must be signed on to by *all* parties in a dispute under WTO law. *Id.* ¶ 7.71. It left open the question of whether in a dispute between members who are all party to a separate treaty that has not been signed by all WTO members, that treaty would not have relevance in the dispute under the Panel's interpretation of article 31(3)(c) of the Vienna Convention. *Id.* ¶ 7. If a future panel or the Appellate Body should indeed find this to be a correct interpretation of the Vienna Convention, the implications for future disputes involving WTO law do not bode well for those seeking to protect non-trade related interests in the international realm.

195. DSU, *supra* note 52, art. 22.6 (stating that a panel will be established if the Member "objects to the level of suspension proposed, or claims").

found to serve a purpose outside the coverage of the WTO agreements. In the context of the GMO labeling controversy, this means that if the EC's L&T requirements under Regulations 1829 and 1830 can be shown to fulfill purposes related to the protection of consumer autonomy and that they give effect to individuals' moral and ethical commitments,[196] then a WTO panel hearing the dispute must not allow sanctions to the extent they would in effect punish the EC for the operation of regulations outside the WTO's jurisdiction. This approach to remedies would be an effective check on the race to Geneva in which WTO members frame international conflicts as trade-related to score economic benefits when such conflicts arise out of much deeper cultural differences.

CONCLUSION

Justice Oliver Wendell Holmes famously quipped in his dissent in *Lochner v. New York*, "The 14th Amendment does not enact Mr. Herbert Spencer's *Social Statics*."[197] The same cannot be said for what the General Agreement on Tariffs and Trade does with David Ricardo's theory of comparative advantage.[198] The WTO continues to operate on an economic

196. This is based on the premise that the individual exists as the final consumer in a complex global economic system whose injustices can be masked in the obscurity of continent-spanning supply chains.

197. Lochner v. New York, 198 U.S. 45, 75 (1905) (Holmes, J., dissenting). Given this Note's discussion of a WTO ruling invalidating laws passed at least in part for the protection of human health, it is worth noting that the majority in Lochner struck down a public health measure which regulated hours for bakers as an invalid exercise of the police power. "The act is not, within any fair meaning of the term, a health law, but is an illegal interference with the rights of individuals, both employers and employees, to make contracts regarding labor upon such terms as they may think best . . . ." *Id* at 61. Notice how the Court there, like the WTO here, performs a "framing" function antecedent to substantive analysis. The law is an interference with contracts, not a health measure; likewise, the WTO assumes the EC's GMO regulations sink or swim on scientific validity, rather than other frames of reference, such as cultural perceptions of risk. While Holmes focused his dissent on the inappropriate invasion of economic theory into constitutional law, the other dissent, penned by Justice Harlan, drew attention to the majority's studied ignorance of the real health concerns the invalidated law sought to protect.

> The long hours of toil to which all bakers are subjected produce rheumatism, cramps and swollen legs. . . . Nearly all bakers are pale-faced and of more delicate health than the workers of other crafts . . . . The average age of a baker is below that of other workmen . . . most of them dying between the ages of forty and fifty.

Id. at 70 (Harlan, J., dissenting) (internal quotations omitted). *See also* Patricia Isela Hansen, *Transparency, Standards of Review, and the Use of Trade Measures to Protect the Global Environment*, 39 VA. J. INT'L L. 1017, 1046–47 (1999) (comparing the *Lochner* Era Supreme Court to the WTO and cautioning that decisions "provok[ing] widespread political opposition" threaten the legitimacy of an institution).

198. *See* WTO, *supra* note 47.

theory that came to preeminence in the early Nineteenth Century and that has undergone critical theoretical scrutiny in the last quarter century. It is already past the time that the WTO and its members should have responded to these concerns.

The WTO has become in the last half century *the* international institution "enforcing" "free" trade on a global scale. Yet it has also become the forum de jour for many disputes that may not be best assessed under the trade-oriented rules of the WTO. The EC's GMO L&T regime is a striking example of a law that arises from and serves multiple social and environmental purposes, but stands exposed under a brooding storm of broadly-worded WTO trade rules designed to maximize economic efficiency at the expense of a multitude of other regulatory concerns. Is it just to require that a European consumer's moral opposition to GMO food products should be evaluated for its scientific validity? Such a consumer might respond:

> The final food product containing GMOs is but the last link in a socioeconomic chain connecting multinational agribusiness firms to large-scale industrial farmers to unsustainable yields; this, in turn, causes ecological upset in the form of increased parasitic resistances, the spread of genetically modified invasive plant varieties into local ecosystems, the entrance and bioaccumulation of poisons within food webs, potential threats to human health, and growing economic dependency on monoculture crops and diets, which threaten to rupture environmentally and socially superior farming methods. *I refuse to play a role in this.*[199]

While the scientific basis for some of those assertions may require more study, the WTO would be far a field of its expertise if it determined to weigh in on the merits of this essentially normative debate under a document as science-specific as the *SPS Agreement.* How could agricultural science answer whether Europe's governments and consumers

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199. *See* Margaret Rosso Grossman, *Multifunctionality and Non-Trade Concerns, in* AGRICULTURE AND INTERNATIONAL TRADE: LAW, POLICY AND THE WTO 85, 85 (Michael N. Cardwell et al. eds., 2003) (defining "multifunctionality" as "the ability of agriculture to provide goods and services valued by society, in addition to the production of marketable food and fibre," i.e., rural employment, spiritual values, maintenance of ecological wisdom, animal welfare, crop diversity and food security, among others); Michael Cardwell, *Multifunctionality of Agriculture: a European Community Perspective, in* AGRICULTURE AND INTERNATIONAL TRADE: LAW, POLICY AND THE WTO, *supra*, at 131, 151, (discussing compatibility of the EC's comprehensive multifunctional agricultural and rural programs with WTO rules).

are wrong to protect their farmers from an American "noose around the neck"?[200]

Finally, a ruling that GMO labeling is invalid under trade rules would be a blow to our American political values as much as it would be a blow to Europe's millennia-old agricultural traditions. Such a ruling undermines the primary argument of free-market advocates for the role of the consumer as democratic power-broker through the ability to influence economic and social trends by the exercise of buying power. This power is only effective when consumers have the necessary information to make informed choices in the market that reflect their values and desires—exactly what GMO L&T requirements seek to provide. More fundamentally, a regime of trade rules that would hamper the ability of individuals to know or understand the nature of what they are putting into their bodies should be regarded as untenable by all countries where personal autonomy is still sacrosanct and the liberty of the individual revered.

200. *See, e.g.*, Winickoff et al., *supra* note 68, at 85 (arguing that "WTO judges charged with interpreting the *SPS Agreement* should use anti-protectionism [rather than scientific sufficiency] as their guiding norm"). *See generally* sources cited *supra* note 1 and accompanying discussion.