

Michigan Journal of International Law

Volume 23 | Issue 3

2002

Cross-Examining Expertise in the WTO Dispute Settlement Process

Christopher T. Timura
University of Michigan Law School

Follow this and additional works at: <https://repository.law.umich.edu/mjil>



Part of the [Evidence Commons](#), [International Trade Law Commons](#), and the [Organizations Law Commons](#)

Recommended Citation

Christopher T. Timura, *Cross-Examining Expertise in the WTO Dispute Settlement Process*, 23 MICH. J. INT'L L. 709 (2002).

Available at: <https://repository.law.umich.edu/mjil/vol23/iss3/5>

This Note is brought to you for free and open access by the Michigan Journal of International Law at University of Michigan Law School Scholarship Repository. It has been accepted for inclusion in Michigan Journal of International Law by an authorized editor of University of Michigan Law School Scholarship Repository. For more information, please contact mjil.repository@umich.edu.

STUDENT NOTE

CROSS-EXAMINING EXPERTISE IN THE WTO DISPUTE SETTLEMENT PROCESS

*Christopher T. Timura**

INTRODUCTION	709
I. SOCIAL THEORY AND EXPERTISE	712
A. <i>Late Modernity and Expertise</i>	712
B. <i>Expert Systems and the Possibility of Consensus</i>	715
II. THE CONSULTATION OF EXPERTS IN WTO	
DISPUTE SETTLEMENT PROCESSES: GUIDELINES AND	
EMERGING PROCEDURES	717
A. <i>Guidelines for Expert Selection and</i>	
<i>Solicitation of Advice</i>	717
B. <i>Emerging Procedures for Expert Selection</i>	
<i>and Consultation</i>	718
1. Selecting the Appropriate Experts.....	720
2. The Problem of Institutional Bias in	
Expert Selection	720
3. The Solicitation of Expert Advice.....	723
III. REFORMING THE PANEL PROCESS	725
A. <i>Develop an Inclusivity Standard for the DSU</i>	726
B. <i>Grant Explicit Rights to Directly Question and</i>	
<i>Cross-Examine Experts</i>	727
IV. ASKING THE RIGHT QUESTIONS TO THE RIGHT EXPERTS.....	729
CONCLUSION.....	731

INTRODUCTION

Experts seem to be everywhere in the World Trade Organization (WTO). Member States' diplomats, lawyers, and regulatory officials are often referred to and deferred to as experts.¹ Dispute Settlement Body (DSB) panelists and Appellate Body (AB) officials are chosen because

* J.D. Candidate, University of Michigan Law School, expected May 2003; Ph.D. Candidate Anthropology, University of Michigan, expected December 2003, MA Anthropology, University of Michigan, Dec. 1999; M.Sc. Anthropology and Ecology of Development, University College London, Nov. 1997; B.A. Environmental Studies, Denison University. The author would like to extend special thanks to Robert Howse, Dirk Pulkowski, Yingtao Ho, and the *Michigan Journal of International Law*.

1. Steve Croley and John Jackson speak of giving deference to government and administrative expertise in WTO Dispute Resolution. Steven P. Croley & John H. Jackson, *WTO Dispute Procedures, Standard of Review, and Deference to National Governments*, 90 AM. J. INT'L L. 193, 208-09 (1996).

they are seen as experts in trade law and dispute settlement.² More controversially, expert panels call upon other experts to help them assess whether Member States' policies can be reconciled with their commitments to freer trade.

Despite this proliferation of expert recognition, the approaches taken by WTO commentators to the topic of expertise assume one of two forms. Some commentators develop issue-centered analyses of particular trade disputes. These tend to problematize the DSB's use of trade experts to reconcile Member States' free trade commitments with the values and knowledge that underwrite policymaking in a particular area such as the environment.³ Others take this juxtaposition of expertise as granted (i.e., trade experts deciding disputes that involve more specific areas of policy and/or scientific expertise), and instead critique the DSB's procedures for eliciting scientific opinions.⁴ In the latter form, commentators propose changes in the rules of burden-shifting or legal analysis as remedies for perceived inadequacies in the process. Common to both approaches is a narrow understanding of expertise that takes natural scientists and their knowledge as its Platonic form. Neither approach takes the important first steps of asking why individuals in complex societies turn to experts, who these experts actually are, and how their various professional, institutional, and cultural contexts might inform, shape and produce their various expertises.

2. Hathaway opines that the WTO Appellate Body has demonstrated a great degree of expertise and professionalism in handling international trade issues. C. Michael Hathaway, *Commentary on "The Appellate Body,"* 31 *LAW & POL'Y INT'L BUS.* 697, 700 (2000); Article 17.3 of the Dispute Settlement Understanding requires that AB members are "recognized authorit[ies] with demonstrated expertise in [the] law." Understanding on Rules and Procedures Governing the Settlement of Disputes, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization [hereinafter WTO Agreement], Annex 2, LEGAL INSTRUMENTS—RESULTS OF THE URUGUAY ROUND, art. 17.3, 1869 U.N.T.S. 401 (1995) [hereinafter DSU].

3. See, e.g., Virginia Dailey, *Sustainable Development: Reevaluating the Trade vs. Turf Conflict at the WTO*, 9 *J. TRANSNAT'L L. & POL'Y* 331, 354–55 (2000) (arguing that the fact that WTO panelists rarely, if ever, have expertise in environmental trade law means that environmental concerns will inevitably take a back seat to other trade-centered issues in panel decisions); see also Vern R. Walker, *Keeping the WTO from Becoming the "World Trans-Science Organization": Scientific Uncertainty, Science Policy, and Factfinding in the Growth Hormones Dispute*, 31 *CORNELL INT'L L.J.* 251, 254–55 (1998) (exploring the role of scientific experts in the WTO with special reference to the Panel Report, European Communities—Measures Concerning Meat and Meat Products, WT/DS26/R/USA and WT/DS48/R/CAN (Aug. 18, 1997), <http://www.wto.org> [hereinafter collectively, Hormones Panel report] and Report of the Appellate Body, European Communities—Measures Concerning Meat and Meat Products, WT/DS26/AB/R and WT/DS48/AB/R (Jan. 16, 1998), <http://www.wto.org> [hereinafter, collectively, Appellate Body Hormones report]).

4. Theofanis Christoforou, *Settlement of Science-Based Trade Disputes in the WTO: a Critical Review of the Developing Case Law in the Face of Scientific Uncertainty*, 8 *N.Y.U. ENVTL. L.J.* 622, 648 (2000); Dailey, *supra* note 3; Walker, *supra* note 3.

This Note takes this set of questions as a starting point in a discussion of what we as legal scholars, government officials, policymakers, and concerned citizens of Members States can realistically expect from WTO expert testimony, and how we can better tailor the dispute settlement process to meet these expectations. Like the work of other WTO commentators on scientific disputes, this Note focuses on how DSB panelists have used expert testimony in science-based disputes arising over compliance with the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement).⁵ However, the reforms this Note proposes differ insofar as they are based upon a broader understanding of expertise, one drawn from social theory and social scientific studies of scientific communities. In short, it will be argued that the DSB's current methods for the selection of experts and the elicitation of expert testimony do not adequately reflect what social scientists know about scientific communities and scientific practice. Changing the Dispute Settlement Understanding (DSU) to force DSB panels to be more inclusive in their selection of experts, and to allow parties to pose questions to experts directly and to cross-examine their replies would enhance not only panelists' abilities to evaluate Member States' compliance with their free trade commitments, but also the WTO's perceived legitimacy in the eyes of its many observers.

Part I surveys some of the recent contributions that social theorists and social scientists have made to our understanding of the role of experts in society, and also the structure of expert communities. Experts are everywhere in modern life, and individuals are with increasing frequency asked to extend their trust to experts and bodies of knowledge that they have little or no opportunity to question. Part II highlights how the WTO Agreement deals with experts, using recent WTO panel reports to illustrate the ways in which the DSB has operationalized its various provisions. Part III suggests two changes in these DSU provisions that better reflect current knowledge of expertise as well as the interests of Members in the dispute settlement process. The Note concludes by revisiting the idea of expertise in international economic law in a slightly different guise in Part IV, this time stressing the importance of asking the right questions.

5. As I hope will become apparent, an empirically-grounded improvement to our understandings of *scientific* expertise would extend equally, and perhaps more importantly, to the other forms of expertise regularly called upon in various halls of international trade regulation. From a legitimacy-enhancing perspective, both perceived legitimacy and real, we ought to be just as concerned with the WTO's use and deference to non-scientific experts.

I. SOCIAL THEORY AND EXPERTISE

A. *Late Modernity and Expertise*

The idea that experts should be trusted to address particular types of problems is not new. Socrates relied on the common sense of this proposition when he asked the rhetorician Gorgias:

Whenever there is a gathering in the city to choose doctors or shipwrights or any other professional group, surely the rhetorician will not then give his advice, for it is obvious that in each such choice it is the real expert who must be selected. And when it is a question about the building of walls or equipment of harbors or dockyards, we consult not the rhetoricians, but the master builders⁶

Among legal theorists, Karl Llewellyn argued for a special role for experts in adjudication processes, making the commonsense suggestion that business disputes may be best resolved by panels of expert businessmen.⁷

Despite these earlier pronouncements on the issue, the current use of experts at the WTO can only be seen as part of a much broader predicament of late modernity at the beginning of the 21st century.⁸ Being modern—flying in airplanes, eating government-regulated foods, working with word processors—requires that citizens place their trust in products and services developed by others far removed in space and time from the site of their everyday interactions, forcing them to extend the

6. PLATO, *THE COLLECTED DIALOGUES OF PLATO*, GORGIAS 239 (W.D. Woodhead trans., Edith Hamilton & Huntington Cairns eds., Princeton Univ. Press Bollingen Series LXXI 14th ed. 1989).

7. Zipporah Batshaw Wiseman, *The Limits of Vision: Karl Llewellyn and the Merchant Rules*, 100 HARV. L. REV. 465, 512–13 (1987).

8. Of course, Modernity began long before the present. In Literature and Art, modernism is usually defined as “the predominant artistic and literary movement between 1890 and 1945 . . . [o]ften seen as a reaction to the stringent aesthetic formulas and moralism of the Victorian period” COLUMBIA DICTIONARY OF MODERN LITERARY AND CULTURAL CRITICISM 192 (Joseph Childers & Gary Hentzi eds., 1995). In the present context however, I wish to use Modernity in a sociological sense referring to the “modes of social life or organisation which emerged in Europe from about the seventeenth century onwards and which subsequently became more or less worldwide in their influence.” ANTHONY GIDDENS, *THE CONSEQUENCES OF MODERNITY* 1 (1990). Different sociological thinkers have highlighted different aspects of Modernity, which taken together can be seen as key attributes of our social world. Marx emphasized the capitalist economy; Weber “the expansion of formal rationality at the expense of the other types of rationality”; Durkheim the development of social organizations that bring with them both greater freedom of movement and higher productivity; and Foucault the development of the State and other disciplines, which meant that subject populations were increasingly surveilled. GEORGE RITZER, *MODERN SOCIOLOGICAL THEORY* 422, 424 (5th ed. 2000).

trust that they normally reserve to intimates to others who would seem to be just the opposite.⁹ Reliance on these various and manifold expert systems—complex systems of abstract knowledge developed by specialists—forms part of an essential and largely unconscious bargain citizens make to live in complex societies.¹⁰ The conditions of late modernity leave no choice but to live in a society of enormous complexity, only some of which is predictable or manageable and much of which produces anxiety and feelings of vulnerability.

As British sociologist Anthony Giddens suggests, the increasing reliance on expertise often takes the form of trust placed in symbolic tokens (e.g., “don’t worry, she’s a doctor”) and expert systems (e.g., medicine).¹¹ This trust in expertise derives in part from a long cultivation of respect for expert communities, a process that begins as early as grade school field trips. It also is gleaned from experiences with different “access points” to expert systems—times and places where, as lay persons, citizens are forced to extend their trust in expert systems, short of undertaking the time-consuming task of developing those new expertises themselves.¹² However, Giddens also draws attention to the basic ambivalence late moderns often feel about trusting expertise. In part this ambivalence is based on the fact that experts base their opinions, products, and services on things that non-experts cannot fully understand. It also stems from divergent experiences with experts. Our trust in experts is generally affirmed when a doctor treats us successfully for pain. It is jeopardized, however, when a Ford Explorer overturns on slightly deflated Firestone tires, as per the

9. The question of whether we may in fact be in a post- or even hyper-Modern phase takes the point even further. No matter how advanced, disjointed, reflexive, or fast-paced our social worlds really are, these worlds are premised upon the same extension of trust to experts at increasingly distant points in time and space, and our points of access to expert systems have been multiplied and made more complex.

10. The celebrated British sociologist, Anthony Giddens, uses the image of the juggernaut to capture the summary effect of late Modernity’s complexity on the human condition:

[Late Modernity is] a runaway engine of enormous power which, collectively as human beings, we can drive to some extent but which also threatens to rush out of our control and which could render itself asunder. The juggernaut crushes those who resist it, and while it sometimes seems to have a steady path, there are times when it veers away erratically in directions we cannot foresee. The ride is by no means wholly unpleasant or unrewarding; it can often be exhilarating and charged with hopeful anticipation. But, so long as the institutions of modernity endure, we shall never be able to control completely either the path or the pace of the journey. In turn, we shall never be able to feel entirely secure, because the terrain across which it runs is fraught with risks of high consequence. Feelings of ontological security and existential anxiety will coexist in ambivalence.

GIDDENS, *supra* note 8, at 139.

11. *Id.* at 90.

12. *Id.* at 88–92.

manufacturer's recommendation,¹³ or when we plant genetically modified corn next to our favorite varietal and end up with an unintended hybrid.¹⁴ Moreover, media helps to multiply our experiences with these points of access through news reports or on-line health information.¹⁵ Thus we hear regularly about the promise of particular expert systems (e.g., a promising new cancer treatment) but we also hear about their failures (such as the inability of scientists, until recently, to explain the relationship between bovine spongiform encephalopathy (BSE), the so-called "mad cow" disease, and Creutzfeldt-Jakob Disease (CJD),¹⁶ and of British policymakers to take timely action to stave off a problem of grave concern¹⁷). These access points teach us both to respect and be skeptical of expert knowledge systems.

Given the importance of access points in bolstering or eroding trust in expert systems, it should come as no surprise that scientific disputes at the WTO should be so unsettling to many of the WTO's official and non-official constituencies.¹⁸ This Note suggests that the DSB dispute proc-

13. See, e.g., David Schepp, *Ford Defends Its Safety Record*, BBC NEWS, June 19, 2001, at http://news.bbc.co.uk/hi/english/business/newsid_1397000/1397591.stm (last visited May 10, 2002).

14. John Vidal, *Mexico's GM Corn Shocks Scientists*, GUARDIAN, Nov. 30, 2001, at <http://www.guardian.co.uk/Archive/Article/0,4273,4310334,00.html> (last visited May 10, 2002).

15. See, e.g., Web MD, at http://my.webmd.com/drugs_and_herbs (last visited May 10, 2002) (an online health information site containing information on drug and herb side effects, and a listing of recent product recalls, including 4 million Snuggle Teddy Bears).

16. See Jonathan S. Weissman & Jennifer K. Hood, *A Rogue Protein*, THE LANCET, 358 (Supplement): s53 (Dec. 2001).

17. Among other actions and omissions, British policymakers declined to act on concerns that "mad cow disease" could jump the species barrier to cause the human vCJD for several years. *BSE Spotlight of Blame*, BBC NEWS, Oct. 26, 2000, available at http://news.bbc.co.uk/hi/english/uk_politics/newsid_992000/992641.stm (last visited February 11, 2002); see also Return to an Order of the Honourable the House of Commons Dated October 2000 for the Report, Evidence and Supporting Papers of the Inquiry into the Emergence and Identification of Bovine Spongiform Encephalopathy (BSE) and Variant Creutzfeldt-Jakob Disease (vCJD) and the Action Taken in Response to it up to 20 March 1996 (conclusions of a House of Commons inquiry into the BSE scandal), available at <http://www.bse.org.uk/report/index.htm>; *Labelling Blamed for BSE Blunder*, BBC NEWS, Nov. 30, 2001, at http://news.bbc.co.uk/hi/english/sci/tech/newsid_1684000/1684479.stm (last visited February 11, 2002) (explaining how scientists studying the potential occurrence of the equivalent of BSE in sheep mistakenly studied mislabeled cow brains for three years).

18. Christoforou observes that Member States have made claims in almost every science-based trade dispute thus far that panels have mishandled the scientific evidence. See Christoforou, *supra* note 4, at 644-45; Anti-WTO protests offer another type of evidence of how unsettling some of these disputes have been to particular groups in civil society. See, e.g., Patrick O'Connell, *Technocrats Versus Turtles*, BBC NEWS, Nov. 30, 1999, available at http://news.bbc.co.uk/hi/english/business/newsid_543000/543164.stm (last visited May 10, 2002) (one of many articles about the WTO Seattle protests, where at least some of the protesters donned turtle costumes to protest the WTO's ruling in a well-known science related trade dispute).

esses themselves have become access points where Member States' constituencies learn about their own and others' experiences with scientific expertise. The resulting comparisons may not always be reassuring. Differing national policies in such basic regulatory areas as food safety raise immediate questions about where and with whom citizens have laid their trust. For the citizen of one country, learning that her own government (in which she places her trust) has relied on scientific experts (in whom she also places her trust) and has chosen a different safety regulation than another government (with its own trusting citizens) can be disconcerting. Faced with policy differences regulating basic staples of modernity—e.g., health codes, food safety, and environmental quality—whose experts, policy, scientific, or otherwise, should she trust?

B. *Expert Systems and the Possibility of Consensus*

Sociological and anthropological studies of scientific communities offer another, albeit lesser known, access point into expert communities and their knowledge. Scientific research does result in the accumulation of reliable and accurate knowledge, but the production of this knowledge is less sealed off from the many influences of context than may often be assumed. If the production of scientific knowledge is influenced by scientists' specific national, professional, and cultural contexts, then the WTO rules for the selection and consultation of experts ought to ensure that both panelists and parties to a dispute are able to consider these influences.

Many of the implications of context are easily lost without a comparative understanding of how scientific problems are formed and pursued. In their 1982 analysis of culture's effects on the identification of environmental risks, anthropologist Mary Douglas and political scientist and public policy specialist Aaron Wildavsky called attention to why and how particular risks are selected over others as requiring further social and scientific scrutiny.¹⁹ They argued that the chosen objects of scientific study often depend on the underlying preferences and assumptions that populations have about what are and what are not controllable risks:²⁰ "[S]ince no one can attend to everything some sort of priority must be established among dangers. . . . Ranking dangers so as to know which ones to address and in what order, demands prior agreement on criteria."²¹ Cultural influences, including basic beliefs regarding pollution and purity, or what is natural and what is artificial,

19. MARY DOUGLAS & AARON WILDAVSKY, *RISK AND CULTURE: AN ESSAY ON THE SELECTION OF TECHNICAL AND ENVIRONMENTAL DANGERS* (1982).

20. *Id.* at 67–82.

21. *Id.* at 3.

structured these criteria, and led the citizens of one nation to focus on water quality, while those of another focused on food additives.²²

The pursuit of scientific knowledge about risks is not only influenced by culturally specific beliefs regarding what risks might be controllable, but also by scientists' institutional environments. Thus, anthropological studies by Laura Nader, Bruno Latour, and others have helped to demonstrate how particular scientific discoveries and their dissemination can be influenced by different aspects of the scientific environment including: personal agendas of their proponents; scientific conventions ranging from laboratory floor plans to the practices of publishing and peer review; and institutional support scientists are able to harness in particular times and places.²³ Scientific consensus, especially on issues that require multiple forms of scientific expertise to resolve satisfactorily, may be more elusive than is often imagined.

Indeed, proposals for reforming the DSB's use of scientific expertise often fail to appreciate the likelihood of disagreement on even basic issues of scientific fact. Christoforou's recent critique of science-related trade disputes at the WTO focused on DSB panels' decisions to consult with experts not on a group basis, but as individuals.²⁴ In short, he argues that group consultations would force experts to speak to areas of consensus in scientific knowledge while responding to panelists' or parties' queries.²⁵ In the abstract, this proposition seems logical: let scientists advise WTO panelists on the obvious areas of agreement in science today. However, when viewed in the light of our divergent experiences with access points in daily life, and in light of what social scientific studies of science tell us about the importance of context, the value of the proposal seems to rest on ill-founded assumptions regarding the homogeneity of scientific communities and their knowledge.

22. *Id.*

23. NAKED SCIENCE: ANTHROPOLOGICAL INQUIRY INTO BOUNDARIES, POWER AND KNOWLEDGE (Laura Nader ed., 1996); PAUL RABINOW, MAKING PCR: A STORY OF BIOTECHNOLOGY (1996); BRUNO LATOUR, THE PASTEURIZATION OF FRANCE (1988). BRUNO LATOUR AND STEVE WOOLGAR, LABORATORY LIFE: THE CONSTRUCTION OF SCIENTIFIC FACTS (2d ed. 1986).

24. Christoforou, *supra* note 4, at 628-29.

25. *Id.* at 639-41.

II. THE CONSULTATION OF EXPERTS IN WTO DISPUTE SETTLEMENT PROCESSES: GUIDELINES AND EMERGING PROCEDURES²⁶

DSB panels have run into more than a few difficulties when faced with the heterogeneity of expert knowledge and practice. Before describing how DSB panels have developed procedures for selecting experts and eliciting advice, the next Section surveys the guidelines established by Member States.

A. Guidelines for Expert Selection and Solicitation of Advice

The guidelines for DSB panels seeking expert advice are set out in several sections of the DSU,²⁷ the SPS Agreement,²⁸ and the Agreement on Technical Barriers to Trade (TBT Agreement).²⁹

Under article 13.1 of the DSU, panelists have the right to seek information and technical advice from any individual or body they deem appropriate.³⁰ In its adopted *Shrimp/Turtle* report, the Appellate Body noted “the comprehensive nature of the authority” given to panels by article 13, explaining that seeking outside expertise may be “indispensably necessary” to discharge the duty of DSB panels to make “an objective assessment of the facts of the case and the applicability of and conformity with the relevant covered agreements.”³¹

When a dispute concerns an alleged violation of Members’ rights under one of the WTO’s covered agreements, the DSU instructs panels to defer to the more specific guidelines for the consultation of experts outlined in these agreements.³² Thus, for disputes concerning sanitary and phytosanitary measures, the Appellate Body noted that the SPS Agreement actually *instructs* panelists to seek expert advice whenever

26. It is worth mentioning here that no social scientist has yet been given access to the panel dispute resolution process for observation. As a result, the entirety of this Note relies on those aspects of the dispute resolution process that have been revealed to the public in DSB publications.

27. DSU arts. 8.4, 13.1-2, app. 4.

28. Agreement on the Application of Sanitary and Phytosanitary Measures, Apr. 15, 1994, WTO Agreement, Annex 1A, LEGAL INSTRUMENTS—RESULTS OF THE URUGUAY ROUND, art. 11, vol. 24, 1867 U.N.T.S. 493 (1994) [hereinafter SPS Agreement].

29. Agreement on Technical Barriers to Trade, Apr. 15, 1994, WTO Agreement, Annex 1A, LEGAL INSTRUMENTS—RESULTS OF THE URUGUAY ROUND, art. 14 & annex 2, vol. 27, 1868 U.N.T.S. 120 (1994) [hereinafter TBT Agreement].

30. DSU art. 13.1.

31. Appellate Body Report, United States—Import Prohibition of Certain Shrimp and Shrimp Products, WT/DS58/AB/R, para. 104-06 (Oct. 12 1998), <http://www.wto.org> [hereinafter Appellate Body Shrimp/Turtle report].

32. DSU art. 1.

necessary.³³ Article 14 of the TBT Agreement provides similarly, though experts are allowed, not required.³⁴

The DSU, SPS Agreement, and TBT Agreement provide additional guidelines for the formation of expert and technical advisory groups in either their appendices or annexes. In appendix 4 of the DSU, the Members agree that participation in expert review groups should be restricted to “persons of professional standing and experience in the field in question.”³⁵ It further excludes the service of any government officials of parties to the dispute, and instructs that members of expert review groups should serve in their individual capacities and not as representatives of any organizations.³⁶

Unlike the DSU and TBT Agreement, article 11.2 of the SPS Agreement specifically suggests that advice should come from experts chosen *in consultation* with the parties.³⁷ The SPS Agreement annex A.3 lists particular international organizations that may be consulted by panels to provide guidance on international SPS Agreement standards, guidelines, and recommendations.³⁸

B. *Emerging Procedures for Expert Selection and Consultation*

Five science-related trade disputes have come before the WTO DSB thus far: European Communities (EC)—Measures Concerning Meat and Meat Products (*Hormones*),³⁹ United States—Import Prohibition of Certain Shrimp and Shrimp Products (*Shrimp/Turtle*),⁴⁰ Australia—Measures Affecting Importation of Salmon (*Salmon*),⁴¹ Japan—Measures Affecting Agricultural Products (*Agricultural Products*),⁴² and European Commu-

33. Appellate Body Report, Japan—Measures Affecting Agricultural Products, WT/DS76/AB/R, para. 128 (Feb. 22, 1999), <http://www.wto.org> [hereinafter Appellate Body Agricultural Products Report].

34. TBT Agreement art. 14.2–3.

35. DSU app. 4.2.

36. DSU app. 4.3.

37. See SPS Agreement, art 11.2, providing that:

[i]n a dispute under this Agreement involving scientific or technical issues, a panel should seek advice from experts chosen by the panel in consultation with the parties to the dispute. To this end, the panel may, when it deems it appropriate, establish an advisory technical experts group, or consult the relevant international organizations, at the request of either party to the dispute or on its own initiative.

Id.

38. SPS Agreement annex A.3.

39. Hormones Panel report, *supra* note 3.

40. Appellate Body Shrimp/Turtle report, *supra* note 31.

41. Panel Report, Australia—Measures Affecting Importation of Salmon, WT/DS18/R (June 12, 1998), <http://www.wto.org> [hereinafter Salmon Panel report].

42. Panel Report, Japan—Measures Affecting Agricultural Products, WT/DS76/R (Oct. 27, 1998), <http://www.wto.org> [hereinafter Agricultural Products Panel report].

nities-Measures Affecting Asbestos and Products Containing Asbestos (*Asbestos*)⁴³. Despite the liberal mandate available to DSB panels to seek expert advice as appropriate, different panels' expert selection processes have been remarkably consistent, tracking the DSB's first use of experts in the *Hormones* dispute.⁴⁴ Since then, the panelists in *Agricultural Products* and *Asbestos* have set out in more schematic language similar systems for the selection of experts.⁴⁵ First, panelists decide on what areas they will require expert advice, based on parties' initial submissions. Next, the panel solicits lists of possible experts, with preference given to those listed by officials at the international organizations in the covered agreements (e.g., the SPS Agreement) over experts suggested by the parties.⁴⁶ Parties then have the opportunity to comment on the curricula vitae of experts willing to participate, and to make any "major"⁴⁷ or "compelling"⁴⁸ objections to the use of particular experts. The panel in turn makes its selection from a short-list revised accordingly. The final number of the experts selected depends on both the number of issues on which the panel desires to receive opinions, and the number of different areas the available experts can cover competently.⁴⁹

So long as the selected experts are able to comment on issues under their respective competencies, the DSB panels appear to have arrived at a fair method for selecting competent experts. However, a closer look at the selection and testimony of experts in *Asbestos* and *Salmon* reveals how even these guidelines may be insufficient to handle the vagaries of scientific opinion and practice.

43. Panel Report, European Communities—Measures Affecting Asbestos and Asbestos-Containing Products, WT/DS135/R (Sept. 18, 2000), <http://www.wto.org> [hereinafter *Asbestos Panel report*].

44. In *Hormones*, the DSB Panel first solicited a list of possible experts from the Secretariat of the Codex Alimentarius Commission (Codex) followed by a list of experts from the International Agency for Research on Cancer (IARC). The Panel then asked each party to suggest three additional experts. The experts who responded to the Panel's solicitations were each asked to prepare brief curricula vitae that were then circulated to the parties for comment. Based on these comments, the Panel selected its final list: two experts were selected from the Codex, one from the IARC, and two from the lists suggested by the parties. *Hormones Panel report*, *supra* note 3, paras. 6.6–7, 6.10.

45. *Agricultural Products Panel report*, *supra* note 42, para. 6.2; *Asbestos Panel report*, *supra* note 43, para. 5.8.

46. Note that only the SPS Agreement requires that panels consult with parties over the selection of experts, and that in the *Asbestos* dispute regarding the TBT Agreement, the Panel decided it did not need to ask parties for their suggestions in this regard.

47. *Asbestos Panel report*, *supra* note 43, para. 5.8.

48. *Salmon Panel report*, *supra* note 41, para. 6.3.

49. *Agricultural Products Panel report*, *supra* note 42, para. 6.2(b).

1. Selecting the Appropriate Experts

First, the range of possible types of expertise that can speak to a particular issue is often quite broad, and selection of one type of expert over another may favor particular parties' arguments. The *Asbestos* dispute over the legality of a French directive banning the import of chrysotile fibers under the GATT 1994 and TBT Agreement, is an instructive example. During the expert selection phase the parties suggested different types of experts as advisors on the key issues of the case.⁵⁰ Canada suggested that scientific expertise should be solicited from among those who had direct and comparative research experiences on the toxicity of chrysotile and other asbestos fibers, and among experts in the field of risk analysis. They argued that the experts selected should have specializations in toxicology, epidemiology, risk analysis, and occupational health.⁵¹ Like Canada, the European Communities (EC) asked that experts selected have specific knowledge of chrysotile asbestos, but the EC also wanted to ensure that the epidemiologists selected have specific backgrounds studying asbestos and cancer. Furthermore, they requested that additional experts be selected who were able to give opinions on the inapplicability of threshold standards for regulating exposure to asbestos.⁵²

In sum, the question of what types of experts the panel should consult was no less controversial than the issues on which they were to comment. Differing types of expertise were suggested by the EC and Canada, with the hopes of bolstering one or the other's arguments. Where the EC sought experts capable of speaking to all the categories of persons who could come into contact with asbestos and asbestos-containing products—such as those working in maintenance, repair and construction⁵³—the Canadians suggested that an expert on risk assessment methods be included, presumably to better enable their critique of the French government's determination of its appropriate level of risk.

2. The Problem of Institutional Bias in Expert Selection

The parties' exchange with the DSB panel over the selection or exclusion of particular experts from different institutional settings also underscores the problem of perceived and actual bias in expert testimony. In the *Asbestos* case, France argued that the experts should be drawn exclusively from the International Agency for Research on Cancer (IARC), a specialized agency of the World Health Organization (WHO), and if nec-

50. Asbestos Panel report, *supra* note 43, paras. 5.1–5.9.

51. *Id.* para. 5.2.

52. *Id.* para. 5.5.

53. For example, carpenters, plumbers, heating and cooling repairpersons, workers in insulating materials, and do-it-yourself enthusiasts.

essary, the International Labor Office (ILO). No experts, France argued, should have past or present links to industries producing asbestos or substitute products.⁵⁴ On this latter point, they specifically requested that an expert list not be drawn from the International Organization for Standardization (ISO).⁵⁵ Canada took issue with France's request that experts selected by the panel be free from any conflict of interest, suggesting that the expert selection process and the requirement that a disclosure form be completed provided sufficient safeguards against bias.⁵⁶ Ultimately, the panel ignored France's request to exclude the ISO, and requested lists from it, the WHO, the IARC, and several other international organizations.⁵⁷

While the drafters of the TBT Agreement, DSU, and SPS Agreement made clear their expectations that experts drawn from the nations involved in the dispute may tend to favor one party's sets of interests over the others, they did not take into account other types of bias that might affect scientific practice. Although the SPS Agreement lists particular international organizations that Members can look to when attempting to harmonize standards in one area or another, neither the SPS Agreement, nor the DSU or TBT Agreement, provide mechanisms within dispute settlement procedures to account for the possible biases that may exist among an organizations' experts in favor of their particular approach to important areas of panel evaluation such as risk analysis.⁵⁸ Indeed, the experts' responses to questions put in the *Salmon* dispute suggest the presence of just this sort of bias.

The *Salmon* dispute arose over an Australian quarantine proclamation that restricted the import of untreated fresh, frozen, or chilled salmon,⁵⁹ ostensibly to prevent the establishment and spread of particular fish-borne disease agents.⁶⁰ Among Canada's claims was the assertion that the quarantine measures were not based on a scientific risk assessment in accordance with articles 2.2, 5.1, and 5.2 of the SPS Agreement, and instead constituted protectionist measures for Australia's own salmon industry.⁶¹

54. *Id.* para. 5.5.

55. *Id.* para. 5.14.

56. *Id.* paras. 5.10, 5.11.

57. The Panel ultimately requested lists from the World Health Organization (WHO), the International Labour Organization (ILO), the International Programme on Chemical Safety (IPCS), the International Agency for Research on Cancer (IARC), and the International Organization for Standardization (ISO). *Id.* para. 5.20.

58. This point was also noted by Christoforou, *supra* note 4, at 630-31.

59. See Salmon Panel report, *supra* note 41, para. 1.1.

60. *Id.* para. 2.11, 2.14 (d)(i).

61. *Id.* para. 3.2.

Experts were solicited from the Office International des Epizooties (OIE) named in the SPS Agreement. At least one of the experts selected had a strong affiliation with the specific approach that the OIE took to risk analysis. The comments of this expert, a British scientist named Dr. Marion Wooldridge, were particularly focused on establishing minimum requirements for risk assessment, and on differentiating risk assessment from risk analysis. As she explained, not all fields understand risk assessment in the same manner and she had learned her particular framework in an OIE/WTO training workshop.⁶² In fact, Dr. Wooldridge's particular ideas about what constituted a proper form of risk assessment (i.e. must it be probability-based, possibility-based, or some combination?) were not entirely shared by the other experts called to offer comments. When asked "to what extent, from a scientific/technical point of view, does one have to quantify or use expressions which qualify a risk assessment for the risk assessment to be deemed satisfactory?" Dr. Wooldridge took the strongest position, responding that an analysis based on probability was the *minimum* requirement for a risk assessment.⁶³ In addition, while the other experts agreed with Dr. Wooldridge that quantitative analyses would be preferable, they disagreed that it constituted a prerequisite, especially given that specific numbers were not always available on particular diseases and myriad other conditions that might affect their spread.⁶⁴

While this difference in opinion about what constitutes a proper risk analysis may seem trivial, it could have had a significant effect on the outcome of this particular dispute. Indeed, one of the questions at issue in the case was whether the Australian government's 1996 risk analysis report satisfactorily fulfilled the requirement for a *scientific* risk assessment. While the Panel gave Australia the benefit of the doubt, the Appellate Body reversed their interpretation of this article 5.1 requirement, and completed the analysis using the Panel's findings of fact. Drawing on the experts' response to Panel questions on what constituted

62. *Id.* para. 6.7. "By way of general introductory comments, Dr. Wooldridge noted that a number of different terminology systems were still in use even within the veterinary and animal health sphere (including fish). In the terminology system now generally advised for use within this field, *risk analysis* and *risk assessment* had different, distinct meanings although in the past they were often used interchangeably. The term risk analysis as now generally used comprised four components: hazard identification, risk assessment, risk management and risk communication. This terminology was taught in the WTO/OIE sponsored Risk Analysis Training Workshops." *Id.* (emphasis added).

63. *Id.* paras. 6.56–6.59.

64. *Id.*

a proper risk assessment the AB concluded that Australia's 1996 report had failed to include an adequate risk assessment.⁶⁵

3. The Solicitation of Expert Advice

Panels for science-based disputes have thus far used a few rules and procedures to prevent particular forms of expert bias from affecting their consultations. First, parties have had the ability to raise objections to the selection of particular experts,⁶⁶ though as we have seen, this right does not specifically encompass objections to experts' affiliations with particular organizations or institutions.⁶⁷ Second, experts used in panel processes have been non-citizens of the parties to the dispute unless the parties agree otherwise.⁶⁸ Third, at least in *Agricultural Products* and *Asbestos*, the dispute resolution panel prohibited the parties from contacting any of the experts directly, either during the selection phase, or throughout the panel process.⁶⁹

The panelists' control over communications with experts has also extended to the procedures for generating and submitting questions to experts.⁷⁰ Playing a familiar role for judges in most civil law traditions, panels have thus far retained control over the scope of both the written and the oral submissions of questions to experts. Parties are asked to submit written questions they would like to have the experts comment on, but the Panel alone determines the contents of the final list of questions submitted to the experts for their consideration.

Thus far, panels have submitted questions to experts for their individual, rather than group, opinions.⁷¹ As was done in *Agricultural*

65. See Appellate Body Report, Australia—Measures Affecting Importation of Salmon, WT/DS18/AB/R, paras. 129, 135 (Oct. 20 1998), <http://www.wto.org> [hereinafter Appellate Body Salmon report].

66. Asbestos Panel report, *supra* note 43, para. 5.8.

67. See *supra* Section II.B.2.

68. Asbestos Panel report, *supra* note 43, para. 5.8; Agricultural Products Panel report, *supra* note 42, para. 6.2 (d).

69. Agricultural Products Panel report, *supra* note 42, para. 6.2 (c); Asbestos Panel report, *supra* note 43, para. 5.8.

70. Agricultural Products Panel report, *supra* note 42, para. 6.2 (f)–(h).

71. Both Christoforou, a Legal Advisor to the European Commission, and the EC's counsel to the *Asbestos* dispute take issue with the fact that the *Asbestos* Panel solicited expert advice from individual experts, as opposed to the experts acting as a group. They argue that the ordinary meaning of the language in article 13.2 of the DSU and in article 14.2 of the TBT Agreement requires Panels to seek expert advice from expert groups. Christoforou, *supra* note 4, at 647–48; Asbestos Panel report, *supra* note 43, paras. 5.12, 5.17. David Palmeter and Petros C. Mavroidis share Christoforou's interpretation of the DSU, but note that the Appellate Body affirmed the *Hormones* Panel's decision to obtain the individual opinions of the experts in this first WTO case involving expert testimony. DAVID PALMETER & PETROS C. MAVROIDIS, DISPUTE SETTLEMENT IN THE WORLD TRADE ORGANIZATION: PRACTICE AND PROCEDURE 77 (1999).

Products, *Salmon*, and *Asbestos*, experts are instructed to respond in writing only to those questions they feel competent to address. These responses are then circulated to the parties for comments.

Following the first round of written questions, and at the request of either the panelists or one of the parties, the panels convene with the experts.⁷² At these meetings the experts have been offered the opportunity to respond to the parties' comments, with the panelists using their discretion to decide whether to allow the parties to pose additional questions for clarification purposes.⁷³

The opportunities for meetings with experts have produced some remarkable results. Given the foregoing discussion it should come as no surprise that the issue of potential bias arose during the meeting convened with experts, panelists, and parties in the *Salmon* dispute. Though it is not clear who was responsible for opening this particular line of inquiry, several questions were put by the Panel to the experts regarding the operations of the OIE, its relation to the Fish Diseases Commission (FDC), and the criteria used to develop standards both for risk assessment and the classification of risks regarding particular disease agents in fish.⁷⁴ As part of these questions, the panelists were asked to respond to an assertion by Australia concerning the lack of transparency of the FDC's decision-making process. The content of the question helps to illustrate at least one kind of concern likely held by most parties in scientific disputes:

“Question 21. Australia states that detailed minutes are not kept of meetings of the FDC where the categorization of measures to be applied for a particular disease are discussed. Does the FDC produce summary reports of these meetings? Are the FDC recommendations on disease guidelines based on scientific evaluations or assessments? What is the scientific content of

The *Asbestos* Panel responded correctly to the EC's complaint on this point by arguing that the DSU provides its ad hoc panels broad discretion to seek advice from experts in any manner necessary to arrive at an objective assessment of the factual issues necessary to resolve the dispute. *Asbestos* Panel report, *supra* note 43, para. 5.17. As this Note contends, arguments that experts should speak only as a group seem to assume either that consensus on scientific issues is the norm, or that panelists will be unable to develop an objective scientific picture of an issue when expert advice may differ.

72. It is noteworthy that while both the *Asbestos* and *Agricultural Products* panels convened with the parties and experts, only the *Agricultural Products* Panel acknowledged that parties had the right to call a meeting with experts to discuss their comments. See *Agricultural Products* Panel report, *supra* note 42, para. 6.2.

73. The Panel reports for both *Agricultural Products* and *Asbestos* have appended verbatim transcripts of the questions and answers offered during these in-person meetings with experts.

74. *Salmon* Panel report, *supra* note 41, paras. 6.134–6.157.

FDC reports/records? What processes are under way in regard to the categorization or classification of fish diseases?"⁷⁵

The expert replied that while indeed there were no published minutes of the meetings, the "scientific content" of the FDC's epidemiological reports was high. Over the course of several pages of comments included in the Panel report, the experts gave a description of the institutional structure, meetings, and practices of the OIE and FDC. Interesting for Australia's argument that it had performed proper, scientifically-based risk assessment, one expert reported that the FDC has yet to develop a formal method for the categorization of fish or other animal diseases, and that new disease agents are added to the organization's lists based on a gleanings from peer-reviewed articles or from knowledge passed by word-of-mouth.⁷⁶

Nothing too problematic emerged from the experts' responses to the questions submitted at the in-person meeting with the experts. However, useful information was brought forth when particular parties were given the opportunity to ask the experts to respond to their assertions and questions. The line of questioning that developed regarding the FDC's work is suggestive of one of several types of concerns raised by parties regarding the specific criteria and methodologies that scientists use to formulate the standards and recommendations against which government measures are ultimately evaluated in the panel process.

III. REFORMING THE PANEL PROCESS

Part I reflected on both the proliferation and predicament of expertise in late modernity.⁷⁷ As "moderns" we have no choice but to trust the many expert systems that affect our daily lives, yet, the media and other experiences with access points offer us reasons to question the trust we extend to experts and the expertise upon which national regulatory policies are based. Issues of trust become no more certain when citizens come into contact with access points like the WTO, which sometimes highlight differences in national regulatory policies. As Part II of this Note has argued, the DSB's evolving procedures for selecting experts and eliciting expert opinion do not adequately address the heterogeneity of influences that social scientific studies of scientific communities and even DSB panel reports reveal.⁷⁸ The next Sections propose two reforms to the DSB panel process that could further ensure that the concerns of

75. *Id.* para. 6.135.

76. *Id.* paras. 6.135–6.136.

77. *See supra* Part I.

78. *See supra* Part II.

parties regarding the selection of experts and the use of their testimony are more reassuringly addressed.

Two changes should be made to the procedures by which experts are selected and questioned under the DSU, SPS Agreement, and TBT Agreement. Both proposals offer improved mechanisms for addressing current shortcomings in the panel process, and would thereby help to increase the perceived legitimacy of the dispute settlement process in the eyes of its many constituents.

A. *Develop an Inclusivity Standard for the DSU*

An inclusivity standard should be drafted for the DSU, SPS Agreement, and TBT Agreement. To the extent possible, panels should try to ensure that different types of expertise requested by parties are brought to bear on the panels' evaluation of particular factual issues in the case. Recall that the only explicit criteria presently guiding the selection of experts is that they (1) not be nationals of the parties in the dispute, or (2) not be government or other officials serving in that capacity, and (3) that they should have professional standing and experience in the fields in question.⁷⁹ It would be a time-consuming task of dubious value to develop more specific criteria for the selection of experts to address particular types of factual disputes. Such criteria would only be as useful as panel disputes are predictable. However, developing an inclusivity standard whereby panels are instructed to include perspectives from within and among different fields of expertise would be a significant improvement. When compelling differences exist in the ways in which the members of different fields of expertise approach an issue in question, representatives of differing perspectives should be invited to respond to party and panelist questions. Particularly when the measures in question represent departures from those set by international organizations, panels should endeavor to recruit experts both from within and outside the international organizations responsible for their promulgation.

Opening the process to include more diverse perspectives on an issue would not necessarily mean that panelists would be forced to evaluate every possible approach to an issue under dispute. The onus could be placed upon parties to suggest and defend the types of expertise that would be appropriate to call upon for their various claims, and opposing parties could retain their already established right to challenge other parties' suggestions. Furthermore, panels could continue to exercise their control over the consultation process by developing more specific crite-

79. *See supra* Section II.A.

ria for interpreting the proposed inclusivity standard on a panel-by-panel basis.

*B. Grant Explicit Rights to Directly Question and
Cross-Examine Experts*

The DSU should be amended to grant parties both the right to pose questions directly to experts and the right to cross-examine experts' replies. The present mode of soliciting expert opinion leaves the panel with most of the control over what written questions are submitted to the experts at the outset of expert consultation. While experts' responses are later circulated among the parties for their comments, and if the panel desires, additional oral questions at a meeting with the experts, the panel's initial determinations of what constitute the issues of fact in the dispute largely determine the range of issues considered. Granting greater control to parties over the questions to be asked would enable both parties and panelists to consider issues of perception and bias not likely to be included in the panelists' determination of what constitute the issues of dispute.

To be sure, both panelists and parties have important interests in ensuring that the scope of the dispute resolution process remains focused on the specific claims raised by the parties in the dispute. However, parties have additional, countervailing interests in ensuring that the value of the opinions offered by experts on these questions is properly discounted for types of bias that may be present. Allowing parties the right to pose questions directly to experts, both in the first round of written submissions and during the meetings with experts to follow, could better enable parties to situate expert testimony within the broader cultural, social, political, and economic contexts of scientific practice.

Amending the DSU further to give parties the right to cross-examine experts may be the best way to ensure that the relevant information about each experts' opinions is brought to the fore. While Part I suggests several ways in which contextual factors may have an influence on the types of questions experts consider and the ways in which research is pursued, specific instances of such influence will likely differ on a case-by-case basis. Cross-examination would provide parties the freedom to further expand on aspects of particular experts' opinions, and the latitude to elicit the information that will better enable panelists to place these opinions in context.

The common law tradition of cross-examining expert witnesses is not without its detractors.⁸⁰ Yet many if not all of the worst aspects of

80. Professor Samuel Gross offers a remarkable summary of how experts and the American lawyers who use them are often vilified. "Experts in other fields see lawyers as

common law cross-examinations of experts would be absent or reduced in WTO panel proceedings.⁸¹ Contrary to most common law trials involving expert testimony, for example, the experts selected in DSB proceedings would not be the agents of either party, but rather agreed-upon representatives of different fields of expertise opining on the issues in dispute. The significant role that parties currently have in selecting experts would likely prevent the more extreme lines of cross-examination that attempt to undermine credibility of experts by focusing on their paid affiliation with the parties. Instead, occurring as they would after the parties have received experts' comments on the main factual issues of the case, the parties' questions are more likely to track the responses already given by the experts, or to address concerns shared more generally by parties involved in science-related disputes. For example, parties might ask questions about the origins of particular standards or interpretive conventions used by different expert systems, and the feasibility or appropriateness of using them for the particular questions in dispute. The opportunity to cross-examine the selected experts would afford both the parties and the panelists a more comprehensive understanding of the scientific issues in their dispute, and the criteria used by the scientists when rendering their opinions.

Some commentators have raised the additional concern that introducing more heterogeneity into the opinions that panelists receive would result in more confusion, or worse, in panelists making evaluative judgments on the merits of one particular approach versus another. Advocates of this argument point to a wide gap in the type of methods and analysis used by scientists and lay persons, suggesting that non-scientists are ultimately incapable of understanding scientific methods, data, and research.⁸² Such a low estimation of lay-peoples' abilities to understand complex phenomena is unwarranted. Late modernity gives even trade

unprincipled manipulators of their disciplines, and lawyers and experts alike see expert witnesses—those members of learned professions that will consort with lawyers—as whores.” Samuel R. Gross, *Expert Evidence*, 1991 Wis. L. REV. 1113, 1115 (1991). Likewise, Langbein writes, comparing the use of experts in German court proceedings with that in the United States, “Knowledgeable German jurists view our system of party-biased expertise with a mixture of astonishment and contempt.” John H. Langbein, *Trashing the German Advantage*, 82 Nw. U. L. REV. 763, 775 (1988).

81. Gross, seeming to push for a civil-common law hybrid by proposing to give greater incentives to judges to exercise their power to select and consult with neutral experts, offers the following observation to support his proposals for reforming expert testimony: “Most of the disturbing characteristics of this battle [of experts] are a direct consequence of the initial processes of partisan selection and preparation of experts: disagreements are all but inevitable, areas of agreement are under-emphasized or ignored, disputes in the field are magnified, and the consensus of experts, if any, is obscured.” Gross, *supra* note 80, at 1175.

82. See Christoforou, *supra* note 4, 638–41; see also Scott Brewer, *Scientific Expert Testimony and Intellectual Due Process*, 107 YALE L.J. 1535, 1539 (1998).

experts manifold points of access to comprehend both the promise and limitations of scientific expertise. Moreover, scientific knowledge may be complex, but because of the scientific method, it is not unintelligible.

As for concerns that panelists will rely on one particular approach, panelists' questions suggest a high level of appreciation of what is at stake in their consultations with experts, and panelists have been deferential to Member State interests when drawing their conclusions from expert testimony. For example, when in *Agricultural Products* the Panel could have drawn a more extensive inference from answers provided by experts as to whether a product-by-product testing should apply to types of fruits not specifically mentioned by the United States in its complaint, the Panel chose not to do so. The Panel's deference to Member State policy was duly noted by the Appellate Body when the United States pressed its position on this point on appeal.⁸³

IV. ASKING THE RIGHT QUESTIONS TO THE RIGHT EXPERTS

Another way to reflect on the issue of expert consultation in the WTO is to consider the problem of posing the right questions to the right experts. While the focus of this Note has thus far been on procedural reforms to the WTO dispute process, the more important issue is more substantial reform in the way that expertise is understood, not only in scientific trade disputes, but also in other areas of trade regulation. In short, we need to expand our understanding of who experts are, and be more careful regarding the specific issues we direct to them.

Although panels have not yet offered specific criteria in their evaluation of particular expert opinions, they have offered a more general definition of what they mean by scientific: "a process characterized by systematic, disciplined and objective enquiry and analysis, that is, a mode of studying and sorting out facts and opinions. . . ."⁸⁴ By this definition there exist many fields of expertise that could be considered scientific, departing from the more narrow understanding of expertise

83. The AB noted:

At its meeting with the experts, the Panel asked them whether their statements about varietal differences concerning apples, cherries, nectarines and walnuts were also valid for apricots, pears, plums and quince. Dr. Heather answered this question with an unqualified "yes" and the two other experts concurred. After having noted that the experts did not further elaborate on their answers and that neither of the parties provided any additional comments or information, the Panel came to the conclusion that there was not sufficient evidence before it to extend its finding of inconsistency with Article 2.2 to apricots, pears, plums and quince.

Appellate Body *Agricultural Products* report, *supra* note 33, para. 135.

84. Appellate Body *Hormones* report, *supra* note 3, para. 187.

most commentators on the use of expertise in the WTO have taken for granted.⁸⁵

At this point, some may throw up their hands and say that “it’s better to leave expert opinion out altogether.” This kind of response only ignores the basic necessity for expert systems in late modernity, an evasion dangerous both to the citizens whom national regulations are meant to benefit and, through Member States’ citizens, the stability of the international trade system. As pointed out already, modern life is complex, and we need experts. Given this complexity, a more direct (and possibly legitimacy-enhancing) approach would be to include more, not fewer experts in the process, and to allow parties to ask broader questions about the use of expert opinion.

Cross-examining the *idea* of expertise should also make us more aware of the appropriateness of posing particular questions to particular experts. Beyond assembling a group of experts who can speak to a particular issue of fact, the process of vetting experts should make panelists and parties more aware of the specific competencies that various experts possess. Experts competent to offer opinions on one aspect of a case may not be competent to do so on others, and both panelists and parties must be careful to avoid asking experts to speak beyond their fields of expertise. As Howse and Mavroidis suggest, the Panels’ posing of questions in *Hormones* and *Salmon* suggest substantial confusion about what questions can be competently answered by particular experts.⁸⁶ As occurred in *Salmon*, while a laboratory scientist may be competent to answer whether frozen fish could be a vector of a particular parasite, it is unlikely that she can offer opinions on the costs and benefits of particular regulatory alternatives.⁸⁷ The AB has confirmed that these considerations are legitimately part of the purview of Member State policymakers,⁸⁸ and therefore salient to panel outcomes. Such questions may be better put to a regulatory economist, an accounting expert, or a risk management specialist.

85. See Robert Howse & Petros C. Mavroidis, *Europe’s Evolving Regulatory Strategy for GMOs—The Issue of Consistency with WTO Law: Of Kine and Brine*, 24 *FORDHAM INT’L L.J.* 317 (2000) (discussing the DSB’s possible treatment of a trade dispute concerning the regulation of genetically modified organisms). Howse and Mavroidis argue that the AB’s definition of scientific, and the AB’s treatment of a minority opinion offered by an expert in *Hormones* suggest its “broader understanding of science as reasoned inquiry or investigation—a notion reflected in the broadness of meaning of the word for ‘science’ in other European languages, for example *Wissenschaft* in German and *Nauke* in Russian.” *Id.* at 334.

86. *Id.* at 348.

87. *Id.* at 348.

88. See SPS Agreement art 5.6.; see also *Salmon* Panel report, *supra* note 41, paras. 4.98–4.99.

CONCLUSION

One of the most disturbing aspects of DSB proceedings, to both academic commentators and to WTO protesters alike, is the fact that trade experts, who may lack the expertise in other areas of international law, development, environment, labor law, human rights, and others are nonetheless making decisions about regulatory policies without the traditional systems of democratic accountability available at the national level. These decisions have serious implications for our everyday lives. In some cases, such as in the Appellate Body's recent handling of the *Asbestos* Panel report, the results can be reassuring. However, after several decades of litigation on asbestos, most everyone—even trade lawyers—knew about the hazards involved. In other cases, like *Salmon*, and others no doubt likely to arise in the future, there may be a higher degree of uncertainty.

Still, uncertainty, or knowing that we do not know everything about a particular issue, is not so bad. Indeed, as long as panelists strive to develop as objective an appraisal as possible of a given issue of fact, the outcome should be acceptable to Member States and their constituents. Indeed, Appellate Body officials have even made some reassuring acknowledgments that governments can legitimately formulate policy using minority positions in scientific fields.⁸⁹

What is more worrying is the harm that can come from not knowing that we do not know, or worse, thinking that we know what we do not. These latter two situations underscore again the importance of asking the right questions to the right people. It is deeply problematic that the SPS and TBT agreements are the only WTO agreements that specifically direct panelists to seek the input of outside experts. Imagine the improvement if trade expert panelists, recognizing their potential lack of expertise in areas like labor, human rights, environmental regulation, and development began consulting with experts from these various fields as part of their deliberations. Returning to the Socratic allegory referred to at the outset of this Note, a heart problem may be better treated by a cardiologist than an ear, nose, and throat specialist; building a bridge may be better handled by a civil engineer and a team of experienced contractors than a weekend hobbyist.

As more science-based trade disputes appear before the DSB, the dispute resolution process will become an increasingly important access point for the work of experts and expert systems, testing countries and their various constituencies' trust in expertise. Ultimately, the credibility of the WTO rests on its ability to demonstrate that its selection of experts

89. Appellate Body *Hormones* report, *supra* note 3.

and elicitation of expert testimony place panelists in the best position to develop the assessments needed to resolve difficult issues fairly. The two modifications to the DSU, SPS Agreement, and TBT Agreement proposed in this Note are steps toward establishing better trust in this process.