

The “Real Dispute” in the Southern Bluefin Tuna Case: a Scientific Dispute?

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ABSTRACT

On 4 August 2000 a LOSC Annex VII ad hoc arbitral tribunal issued its award in the Southern Bluefin Tuna case brought by Australia and New Zealand against Japan. It found it had no jurisdiction under the LOSC in respect of the SBT dispute. The decision has been controversial. This paper identifies the idea, prevalent in many parts of the pleadings in the case, that the “real dispute” in the case lay under the 1993 Convention, and discusses the associated idea that the dispute was scientific in character. Questions raised by the scientific issues in the case are explored, including what may constitute good or “best” scientific evidence, the suitability of scientific disputes for international adjudication, the appropriateness of precautionary approaches, the validity of “margins of appreciation”, and the most appropriate forms of dispute resolution for cases involving science. The need for greater attention to be devoted to issues raised by the role of science in international dispute resolution may partly explain the strength of the undercurrent in the SBT case which pushed towards the view that there was only one “real dispute”, which fell under the 1993 Convention.

Introduction

Previous articles in this journal have provided an overview of the *Southern Bluefin Tuna* case (SBT case) brought by Australia and New Zealand (ANZ) against Japan under Part XV of the United Nations Convention on the Law of the Sea (the LOSC) in 1999.¹ Readers will recall ANZ contended that Japan had

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¹ Dealing with the provisional measures stage of the case, see B. Kwiatkowska, “The Southern Bluefin Tuna (New Zealand v Japan; Australia v Japan) Cases”, (2000) 15 *International Journal of Marine and Coastal Law* 1; and, dealing with the preliminary objections stage of the case, B. Kwiatkowska, “The Australia and New Zealand v. Japan Southern Bluefin Tuna (Jurisdiction and Admissibility) Award of the First LOSC Annex VII Arbitral Tribunal”, (2001) 16 *International Journal of Marine and Coastal Law*.

failed to co-operate in taking measures for the conservation of Southern Bluefin Tuna. Japan was argued to be in breach of the provisions of Articles 64 and 116-119 of the LOSC, by conducting unilateral experimental fishing which took fish over and above Japan's national allocation under trilateral arrangements.² None of the parties had chosen a means of dispute resolution for disputes under the LOSC as provided for by Article 287, and so the default procedure, arbitration under Annex VII, was applicable in accordance with Article 287(3). Requests for

² "Article 64

Highly migratory species

1. The coastal State and other States whose nationals fish in the region for the highly migratory species listed in Annex I shall cooperate directly or through appropriate international organizations with a view to ensuring conservation and promoting the objective of optimum utilization of such species throughout the region, both within and beyond the exclusive economic zone. In regions for which no appropriate international organization exists, the coastal State and other States whose nationals harvest these species in the region shall cooperate to establish such an organization and participate in its work.

2. The provisions of paragraph 1 apply in addition to the other provisions of this Part."

"Article 117

Duty of States to adopt with respect to their nationals measures for the conservation of the living resources of the high seas

All States have the duty to take, or to cooperate with other States in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.

Article 118

Cooperation of States in the conservation and management of living resources

States shall cooperate with each other in the conservation and management of living resources in the areas of the high seas. States whose nationals exploit identical living resources, or different living resources in the same area, shall enter into negotiations with a view to taking the measures necessary for the conservation of the living resources concerned. They shall, as appropriate, cooperate to establish subregional or regional fisheries organizations to this end.

Article 119

Conservation of the living resources of the high seas

1. In determining the allowable catch and establishing other conservation measures for the living resources in the high seas, States shall:

(a) take measures which are designed, on the best scientific evidence available to the States concerned, to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global;

(b) take into consideration the effects on species associated with or dependent upon harvested species with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened.

2. Available scientific information, catch and fishing effort statistics, and other data relevant to the conservation of fish stocks shall be contributed and exchanged on a regular basis through competent international organizations, whether subregional, regional or global, where appropriate and with participation by all States concerned.

3. States concerned shall ensure that conservation measures and their implementation do not discriminate in form or in fact against the fishermen of any State."

provisional measures were heard by the International Tribunal for the Law of the Sea pending the constitution of an Annex VII tribunal.³

Following the International Tribunal for the Law of the Sea's (ITLOS) Order for provisional measures, a LOSC Annex VII arbitral tribunal was duly constituted, and Japan's preliminary objections to jurisdiction under the LOSC were heard in May 2000. On 4 August 2000 the arbitral tribunal issued its award, finding there to be no jurisdiction under the LOSC in respect of the SBT dispute.⁴ The parties were held to have opted out of the compulsory dispute settlement procedures of the LOSC, because they were party to the 1993 Convention for the Conservation of Southern Bluefin Tuna (the 1993 Convention). The arbitral tribunal considered that Article 16 of the 1993 Convention⁵ impliedly excluded the jurisdiction of dispute resolution bodies

³ The request by ANZ for provisional measures was heard on 27 August 1999 by the International Tribunal for the Law of the Sea (ITLOS), pending the constitution of an arbitral tribunal under Annex VII of The LOSC. ITLOS considered that "measures should be taken as a matter of urgency to preserve the rights of the parties and to avert further deterioration of the Southern Bluefin Tuna stock." International Tribunal for the Law of the Sea Southern Bluefin Tuna Cases Order of 27 August 1999, para. 80. Accordingly, provisional measures were granted by ITLOS, requiring all three countries to abide by their national allocations of quota and refrain from conducting experimental programmes which caught Southern Bluefin Tuna additional to their national allocations. The International Tribunal for the Law of the Sea Southern Bluefin Tuna Cases Order of 27 August 1999 can be read at www.un.org/Depts/los/ITLOS/Order-tuna34.htm. For commentary and discussion, see R. Churchill, "International Tribunal for the Law of the Sea: The Southern Bluefin Tuna Cases (New Zealand v Japan; Australia v Japan): Order for Provisional Measures of 27 August 1999", (2000) 49 *International and Comparative Law Quarterly* 979; M. Hayashi, "The Southern Bluefin Tuna Cases: Prescription of Provisional Measures by the International Tribunal for the Law of the Sea", (2000) 13 *Tulane Environmental Law Journal Summer* 361; T. Dunworth, "Bluefin Tuna", (1999) *New Zealand Law Journal* 395; S. Marr, "The Southern Bluefin Tuna Cases: The Precautionary Approach and Conservation and Management of Fish Resources", (2000) 11 *European Journal of International Law* 815; Kwiatkowska, *op. cit.*; and the symposium "Southern Bluefin Tuna Cases Provisional Measures", (1999) 10 *Yearbook of International Law* 1.

⁴ The Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna Case*) can be read at www.worldbank.org/icsid/bluefintuna/award080400.pdf, and the submissions of the parties at www.worldbank.org/icsid/bluefintuna/main.htm. For commentary and discussion, see A. E. Boyle, "The Southern Bluefin Tuna Arbitration", (2001) *International and Comparative Law Quarterly* 447; Kwiatkowska, *op. cit.*; J.J. Maguire, "Southern Bluefin Tuna Dispute" in Nordquist and Norton Moore (eds.), *Current Fisheries Issues and the Food and Agriculture Organization of the United Nations* (Martinus Nijhoff, 2000); B. Mansfield, "Letter to the Editor: The Southern Bluefin Tuna Arbitration: Comments on Professor Barbara Kwiatkowska's Article", (2001) 16 *International Journal of Marine and Coastal Law* 361.

⁵ "Article 16

1. If any dispute arises between two or more of the Parties concerning the interpretation or implementation of this Convention, those Parties shall consult among themselves with a view to having the dispute resolved by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their own choice.

2. Any dispute of this character not so resolved shall, with the consent in each case of all parties to the dispute, be referred for settlement to the International Court of Justice or to arbitration; but failure to reach agreement on reference to the International Court of Justice or to arbitration shall not absolve parties to the dispute from the responsibility of continuing to seek to resolve it by any of the various peaceful means referred to in paragraph 1 above.

under the LOSC because it demonstrated that the parties had decided upon a non-compulsory means of dispute settlement for disputes to which the 1993 treaty applied.⁶ Part XV of the LOSC was not a completely comprehensive regime, and Article 281(1) embodied one of several exceptions to it intended to balance the rights of coastal and non-coastal states. The tribunal said it did not think that international agreements with maritime elements which prescribed dispute resolution by means requiring the consent of the parties should be deprived of their effect.⁷ “Egregious” cases would still be considered to fall within the jurisdiction of the LOSC dispute resolution bodies under Article 300 of the LOSC, which required the parties to the LOSC to fulfil their obligations in good faith.⁸ The basis of the LOSC Annex VII tribunal’s decision has been criticised, and serious concern has been expressed about the effect it may have on the operation of the compulsory dispute settlement provisions of the LOSC. Had there been found to be jurisdiction, the *Southern Bluefin Tuna* case was to have been a point marking the evolution of the LOSC regime and its system of compulsory dispute resolution.⁹

There has been progress since the decision. Negotiations on experimental fishing were held in the month following the award of the ad hoc tribunal. In November 2000 the Commission for the Conservation of Southern Bluefin Tuna, the body set up under the 1993 Convention to facilitate implementation of the Convention, adopted terms of reference for independent external scientists to devise a scientific research programme. It was agreed this programme would be adopted by the Commission as the basis for experimental fishing except for any changes made by consensus.¹⁰ The report of the external scientists went to the

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3. In cases where the dispute is referred to arbitration, the arbitral tribunal shall be constituted as provided in the Annex to this Convention. The Annex forms an integral part of this Convention.”

⁶ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna* Case), paras. 56–58; see also Memorial on Jurisdiction of Japan, paras. 38–48; Reply on Jurisdiction of Australia and New Zealand, para. 139. The separate opinion of Sir Kenneth Keith (appointed as an arbitrator on 30 July 1999 by ANZ as parties with the same interest) challenged this interpretation of Article 16.

⁷ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna* Case), para. 63.

⁸ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna* Case), para. 64.

⁹ The conception of the LOSC as a global legal regime which governed all marine space and the use of all living and non-living resources found in the sea was put forward by ANZ in pleadings, Statement of Claim of Australia and New Zealand, para. 51; Second Round Presentation of Australia and New Zealand, p. 50. The LOSC provided an overarching mandatory regime, critically dependent on the effectiveness of its hard-won dispute resolution system: a “constitution for the oceans”, Reply on Jurisdiction of Australia and New Zealand, para. 30; Reply on Jurisdiction of Australia and New Zealand, para. 25; First Round Presentation of Australia and New Zealand, p. 35. On the other hand, Japan contended that if the LOSC compulsory dispute resolution procedures were considered to apply to all relevant disputes arising under regional and plurilateral environmental treaties this would “wreak havoc in the world of dispute resolution.” First Round Presentation of Japan, p. 138.

¹⁰ *Report of the Special Meeting of the Commission for the Conservation of Southern Bluefin Tuna*, 16–18 November 2000, para. 32.

Commission's Scientific Committee for discussion and was presented by the Committee to the sixth annual meeting of the Commission in April this year. The Committee adopted the scientific research programme proposal,¹¹ as well as a report on its implementation.

There has also been progress in bringing other countries into the 1993 Convention system. At the April 2001 meeting the Commission adopted a resolution setting in place a mechanism by which Taiwan might, effectively, become a member of the Commission. The resolution established an Extended Commission, which would perform the same tasks as the Commission. Through an Exchange of Letters with the Executive Secretary of the Commission any entity or fishing entity may become a member of the Extended Commission, and will make a "firm commitment" to respect the terms of the Convention.¹² At the same meeting of the Commission the Republic of Korea reported progress in its preparations for accession to the Convention. Indonesia has also indicated that it wishes to become a party, but has some practical issues to resolve. South Africa is giving consideration to the question of membership.¹³

This paper analyses and explores two key and overlapping conceptions of the SBT dispute, which characterised the proceedings before the Annex VII ad hoc tribunal. First, the idea that the "real dispute" in the case lay under the 1993 Convention, which is discussed in the first part of this paper. The idea of the "real dispute" bore no formal or direct connection with the tribunal's decision on jurisdiction. Yet the concept thoroughly permeated the preliminary objections case. Secondly, there is the related issue of the scientific character of the dispute. This paper suggests that these two conceptions of the SBT dispute are in some respects connected. It is submitted that the need for greater attention to be devoted to issues raised by the role of science in international dispute resolution may partly explain the strength of the notion that there was only one "real dispute", which fell under the 1993 Convention. The second part of the paper accordingly highlights questions about the handling of scientific disputes that require further analysis and development.

Where Did The Real Dispute Lie In The Southern Bluefin Tuna Case?

The history of the dispute over Southern Bluefin Tuna

Southern Bluefin Tuna is a resource of considerable value commercially, with global catch having peaked at more than 81,000 metric tons (tonnes) in 1961. The tuna can live up to 40 years and grow as large as 200 kg, with the ability to swim at great speed due to the proportion of respiratory pigment in their

¹¹ *Report of the Seventh Annual Meeting of the Commission*, 18–21 April 2001, para. 12.

¹² *Resolution to Establish an Extended Commission and an Extended Scientific Committee*, Seventh Annual Meeting of the Commission, 18–21 April 2001, para. 6.

¹³ *Seventh Annual Meeting of the Commission*, 18–21 April 2001, paras. 6, 20–24.

muscles. The primary market for tuna is the Japanese market. 90% of the Southern Bluefin Tuna global catch, with its expensive, dark red coloured flesh, is sold on this market.¹⁴ Japanese, Australian, New Zealand, Indonesian, Taiwanese, Korean, and some flag of convenience vessels have been the primary fishers of Southern Bluefin Tuna. Japan and Australia traditionally take the largest catches, with the other countries combined, excluding New Zealand, now taking a similar amount to each of these two countries.

Fishing quotas began to be put in place in the 1980s, when studies revealed the parental stock level of SBT to have been reduced to only 23–30% of its 1960 level.¹⁵ By 1989 the total allowable catch (TAC) established under an informal agreement between Australia, Japan and New Zealand was set at 11,750 tonnes. National allocations were 6,065 tonnes to Japan, 5,265 to Australia and 420 to New Zealand. The arrangement between the three countries was formalised in 1993 in the form of the trilateral Convention for the Conservation of Southern Bluefin Tuna.

The 1993 Convention set up the Commission for the Conservation of Southern Bluefin Tuna to manage the conservation and optimal utilisation of Southern Bluefin Tuna, including through annual TACs and national allocations. The Commission consists of representatives of the three parties to the 1993 Convention, and is advised by a Scientific Committee, established under Article 9 of the Convention, of which each party is a member. The Scientific Committee has identified the 1980 parental biomass level as the threshold for a biologically safe population of Southern Bluefin Tuna, believing estimates of the recruitment of young fish to the stock to decline substantially below that level. Recent Scientific Committee assessments have found the current size of the spawning stock is still only 25–53% of the 1980 level. Given these conditions, the threat posed to the stock is the possibility of an abrupt recruitment decline and a collapse of the fishery, as has occurred in other over-exploited fisheries such as the northern cod stock off Newfoundland.¹⁶

The Commission's stated objective is the rebuilding of the stock to its 1980 levels by 2020. Differences in scientific methodology have made it difficult for the parties to agree on the best way to achieve this goal. Japan considers that the stock is now on the road to recovery. The TAC level has remained the same since 1989. Japan has consistently put forward proposals for an increase of 3,000 tonnes. With no agreement reached on TAC levels, Australia and New Zealand

¹⁴ Response of the Government of Japan to Request for Provisional Measures and Counter-Request for Provisional Measures before the International Tribunal for the Law of the Sea, p. 4.

¹⁵ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna Case*), p. 12.

¹⁶ Professor J. Beddington, "Comments on the issues raised by T. Polacheck & A. Preece, 'A Scientific Overview of the Status of the Southern Bluefin Tuna Stock' and by Talbot Murray's 'Comment' on that Overview", para. 9; presented as evidence before ITLOS by Australia and New Zealand. A.C. Finlayson, *Fishing for Truth: A Sociological Analysis of Northern Cod Stock Assessments from 1977–1990* (Institute of Social and Economic Research, 1994).

have continued to operate under the pre-existing cap. Projections for stock recovery have varied greatly. There is a range of uncertainties involved, for example part of the trouble is the different assumptions by the parties' scientists about the density of stock in areas not currently being fished. There is also uncertainty about the age at which the fish mature—estimates vary between 8 and 12 years.

With a view to resolving differences over the appropriate level of the TAC and of national allocations, the parties began to discuss the potential of an experimental fishing programme (EFP) to provide information that could help them make decisions about the management of the stock and appropriate catch levels. A paper setting out Objectives and Principles for the Design and Implementation of an Experimental Fishing Programme was adopted by the Commission in mid-1996. The Objectives and Principles envisaged the development, through collaboration, of an EFP designed to avoid threat to the fish stocks, while still producing scientifically valid and meaningful results, to be adopted with the agreement of all parties.¹⁷ However, agreement on an EFP was not possible. This was because of disagreement over the fundamental design of a programme, and because the level of acceptable catch for an EFP is linked to overall allowable catch levels, on which, as discussed above, it is not been possible for the three countries to agree.¹⁸ ANZ has taken the view that the Japanese EFP proposal was seriously flawed, and did not merit taking fish over set catch levels.

Consultation and negotiation of an appropriate EFP had been taking place for several years before an impasse was reached and Japan commenced its own programmes. Having notified the other two parties, Japan proceeded with a "pilot programme" of experimental fishing from 10 July–31 August 1998, which took 1,464 tonnes of fish. As a result ANZ notified Japan that a dispute existed between them. A first round of consultations was held in November 1998, in Canberra, and it was agreed to begin negotiations in December, in Tokyo. At the December negotiations in Tokyo an Experimental Fishing Programme Working Group (EFPWG) was established by the three countries to develop an EFP for proposal to the Commission. The EFPWG met five times between February and May 1999, but no agreement was reached on a joint EFP.

In May 1999 Japan said it would commence an EFP on its own terms on 1 June 1999 unless Australia and New Zealand agreed to its proposal for the design of a joint EFP. Australia and New Zealand advised Japan that if it went ahead its actions would be viewed as termination of the dispute resolution process. Japan then proposed that the parties go to mediation, but would not agree to suspend experimental fishing in the meantime. Australia and New

¹⁷ *Objectives and principles for the design and implementation of an experimental fishing program*, para. 12.

¹⁸ Hayashi, *op. cit.*, p. 370.

Zealand accordingly prepared to submit a request for interim measures to the International Tribunal of the Law of the Sea. Japan then suggested arbitrating the dispute under the Convention for Conservation of Southern Bluefin Tuna. Considering the situation pressing, and taking into account Japan's previously expressed intentions to proceed with experimental fishing during dispute resolution, Australia and New Zealand instituted arbitral proceedings as provided for in Annex VII to the LOSC on 15 July 1999, and on 30 July 1999 requested provisional measures from the International Tribunal for the Law of the Sea, pending constitution of the ad hoc arbitral tribunal. The subsequent preliminary objections proceedings were characterised by a number of arguments revolving around the idea that the "real dispute" fell under the 1993 Convention, as follows.

The idea that the "real dispute" lay under the 1993 Convention for the Conservation of Southern Bluefin Tuna, and related factors

Japan argued that the history of the Southern Bluefin Tuna dispute did not sustain the applicants' arguments for jurisdiction under the LOSC.¹⁹ The invocation of the LOSC was an artifice, as there was no genuine relationship between the complaint filed and the provisions invoked.²⁰ The "real dispute" between the parties did not concern the meaning or application of the LOSC—it lay under the 1993 Convention.

ANZ protested. Article 288(1) of the Convention on the Law of the Sea provided that:

"A court or tribunal referred to in Article 287 shall have jurisdiction over any dispute concerning the interpretation or application of this Convention which is submitted to it in accordance with this Part."

ANZ considered that the case concerned the "substantial unilateral ex quota fishing of a depleted highly migratory species",²¹ which clearly "fell within", had a "reasonable connection" with, and "could be evaluated in relation to" the requirements of the LOSC Articles 64 and 116-119.²² Where a dispute could be evaluated by reference to the legal standards of a relevant treaty then the dispute qualified as one concerning the interpretation or application of that treaty.

However, disagreement over jurisdiction clearly did not end here. Both parties made detailed submissions on many further aspects of the question of jurisdiction. The idea of the "real dispute" can be seen as having unified a number of Japan's arguments on jurisdiction, coming together to form an undercurrent in the case which can be identified by looking at certain of these

¹⁹ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna Case*), para. 38(a).

²⁰ Second Round Presentation of Japan, p. 23.

²¹ First Round Presentation of Australia and New Zealand, pp. 98-99.

²² First Round Presentation of Australia and New Zealand, p. 52.

arguments more closely. A number of other factors may first be touched on which may additionally have contributed to the rhetorical effect of the "real dispute" notion.

In particular, there is a sense that it is important for regional and species-specific environmental treaties to be treated as fully developed, mature, stand-alone systems rather than incomplete attempts at conservation. Such treaties may be more likely to be successful in the long run when they are envisaged as successful autonomous operating systems and expected to live up to the intentions of the States that created them. Parties should honour their commitments, and unhappy co-parties should not be quick to run back into the arms of broader "parent" conventions looking for comfort or assistance. This view is compatible with the emphasis laid on treaty commitments by the International Court of Justice in the *Gabcikovo* case²³ where Hungary and Slovakia were expected to resolve their differences through negotiation within the bilateral treaty framework which continued to bind them, rather than considering treaty relations to have been broken off. Treaty frameworks may ultimately be only the furniture of cooperative working relationships between parties, but they are designed by States to reinforce and support cooperation in difficult periods, and States should be encouraged to use them.

Then there may be doubts about whether dispute resolution procedures under the 1993 Convention could be considered to have been altogether exhausted in the *Southern Bluefin Tuna* case. This depends partly on a reading of the extent to which the Southern Bluefin Tuna were indeed endangered by Japan's unilateral experimental fishing programme. ANZ pressed ahead in lodging their case with ITLOS and seeking provisional measures only two days after receiving Japan's offer to have the dispute mediated; but ANZ believed that if determinative action were not taken it was likely the dispute would drag on, with further ex quota unilateral fishing and further damage to the tuna stock. If the parties had elected dispute resolution under the Convention for the Conservation of Southern Bluefin Tuna, the parties should be seen as having had a certain commitment to the procedures envisaged under the treaty, requiring them to see the process through. Article 281 of the LOSC allows for jurisdiction under the LOSC only where no settlement has been reached by the parties through peaceful means of their own choice. The parties disagreed as to whether the process of negotiation under the 1993 Convention had truly been exhausted.

The remainder of the first part of this paper will consider the specific arguments with which Japan sought to project the SBT case as falling solely under the 1993 Convention.

²³ *Case Concerning the Gabcikovo-Nagymaros Project (Hungary/Slovakia)* [1997] ICJ Reps 00 (25 September 1997).

Japan's arguments of *lex specialis* and that the 1993 Convention "covered" the applicable LOSC provisions

Japan argued that the 1993 Convention was *lex specialis*.²⁴ The LOSC was an "umbrella treaty", designed deliberately to allow flexible responses to different issues—of which the 1993 Convention was one.²⁵ ANZ replied that the *lex specialis* rule was applied to resolve conflict between competing treaties concurrently applicable to a given situation. Here the treaties did not conflict.²⁶

Japan also argued that the 1993 Convention "covered" the provisions of the LOSC.²⁷ All questions of compliance with the relevant LOSC provisions fell for consideration under the 1993 Convention, which independently provided for and replicated the requirements of the LOSC. The LOSC provisions would remain operative as regarded species other than Southern Bluefin Tuna, but not Southern Bluefin Tuna. There was no "penumbra of obligation"²⁸ remaining under the LOSC, rather a total eclipse.²⁹

"In respect of Southern Bluefin Tuna the relevant part of UNCLOS has been discharged and satisfied. Its content has been absorbed into and covered by CCSBT so there can be no proceedings under UNCLOS."³⁰

Japan had prepared an extensive list of regional and plurilateral environmental treaties with a view to demonstrating that their own dispute resolution procedures were intended to apply in place of the LOSC provisions.

ANZ responded that where treaty provisions were consistent they applied together.³¹ The basic assumption of international law was one of consistency between and cumulation of treaties, rather than the conflict and fragmentation of legal obligations.³² Furthermore, the provisions of the LOSC and the 1993 Convention were not identical in terms, and to discover whether one of the provisions had been breached the dispute resolution provisions of that treaty should be applied.³³ Conservation of Southern Bluefin Tuna under the 1993

²⁴ Unsuccessful arguments were also made that the 1993 Convention was *lex posterior*.

²⁵ Memorial on Jurisdiction of Japan, para. 145.

²⁶ First Round Presentation of Australia and New Zealand, p. 142 ff and in particular p. 160.

²⁷ First Round Presentation of Japan, p. 73 ff.

²⁸ First Round Presentation of Japan, p. 92.

²⁹ First Round Presentation of Japan, p. 92 and Second Round Presentation of Japan, pp. 37 and 44.

³⁰ First Round Presentation of Japan, p. 104. Where parties used the acronym UNCLOS to refer to the United Nations Convention on the Law of the Sea this is the acronym which appears in direct quotations from the pleadings. All other references in this paper use the acronym LOSC. For discussion of the preference in this journal for the acronym LOSC see W. Edeson, "Law of the Sea Convention: Confusion over the Use of 'UNCLOS', and References to other Recent Agreements", (2000) 15 *International Journal of Marine and Coastal Law* 413. Japan's reference to the CCSBT is a reference to the 1993 Convention.

³¹ First Round Presentation of Australia and New Zealand, pp. 130–131.

³² First Round Presentation of Australia and New Zealand, p. 119.

³³ First Round Presentation of Australia and New Zealand, pp. 130–131.

Convention was always going to be contingent on whether the parties managed to co-operate successfully, whereas the LOSC imposed obligations of co-operation, backed by compulsory, binding—albeit flexible—dispute resolution procedures.³⁴

The tribunal did not accept Japan’s arguments, recognising that treaties may apply concurrently as a matter of principle.³⁵

Japan’s claims that ANZ’s claim of breach of the LOSC was insufficiently particularised and that no case had been brought against other parties to the LOSC

The idea that the “real dispute” lay under the 1993 Convention carries through other arguments presented by Japan, including Japan’s arguments about the generality of ANZ’s claims against Japan and the absence of proceedings by ANZ against other parties to the LOSC.

The tribunal noted Japan’s argument that ANZ referred vaguely to particular provisions of the LOSC but failed to set down precisely their case against Japan.³⁶ Japan said that ANZ had not attempted to link any particular act of Japan with any particular provision of the LOSC—and the result was the absence of any persuasive argument that was sufficiently detached from issues arising under the 1993 Treaty and based specifically on the LOSC.³⁷

Japan contended that ANZ’s statement of claim might constitute an abuse of process on the basis it contained insufficient detail.³⁸ Japan asserted the need for a statement of claim to contain enough detail to disclose the nature of the case against the other party. In Japan’s view ANZ’s claims were “vague and elusive, if not positively evasive”.³⁹ Failure to identify properly a cause of action went straight to questions of jurisdiction and admissibility.⁴⁰ Japan asked: to what facts did the applicants wish to apply the articles of the LOSC that they enumerated?⁴¹

Controversy about the true function of a statement of claim ensued.⁴² Japan emphasised that ANZ had put forward insufficient evidence in support of its claims and argued that ANZ had failed to substantiate a *prima facie* case.⁴³ ANZ clarified that a statement of claim was not an evidentiary document, but a summary of factual allegations and the grounds on which an applicant’s legal

³⁴ First Round Presentation of Australia and New Zealand, pp. 108, 110 and 113.

³⁵ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna Case*), para. 52.

³⁶ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna Case*), para. 40(b).

³⁷ First Round Presentation of Japan, p. 39.

³⁸ First Round Presentation of Japan, p. 194.

³⁹ First Round Presentation of Japan, p. 196.

⁴⁰ First Round Presentation of Japan, p. 198.

⁴¹ First Round Presentation of Japan, p. 195.

⁴² For example, Reply on Jurisdiction of Australia and New Zealand, para. 185.

⁴³ First Round Presentation of Japan, p. 195.

case is based.⁴⁴ Detailed evidence, and argumentation, would have followed at the merits stage, said ANZ.⁴⁵ The nature of the obligations of co-operation and conservation at issue is likely to produce a relatively generalised statement of claim, however, and in future parties to disputes under the provisions of the LOSC may need to bear in mind the desirability of specificity.⁴⁶

The absence of contentious proceedings against Indonesia and Korea, each catching approximately 2,000 metric tonnes of tuna a year, was used by Japan to support an unsuccessful *Monetary Gold* argument.⁴⁷ Japan also argued that:

“The fact that ANZ have not sued Indonesia or the ROK under UNCLOS procedures when they could have done so suggests that what really matters in the present proceedings is that the obligations involved are ones that exist under the CCSBT.”⁴⁸

ANZ agreed that catches by Indonesia, Korea and Taiwan were significant elements in the efforts to manage the Southern Bluefin Tuna stock, and detailed the negotiations taking place between these countries and the Commission.⁴⁹ Progress was continuing in the direction of finding an agreed formula for new entrants to the 1993 Convention system. Korea and Taiwan had voluntarily undertaken significant catch limitations. Interaction with Indonesia at the level of catch control implementation methods was encouraging. ANZ were not in dispute with any of the three countries, there were no difficulties in their discussions comparable with the breakdown in negotiations with Japan. All the same, Japan’s comments on this issue drew attention to the fact that its dispute with ANZ was born of the close involvement of the three countries in the trilateral 1993 Convention. Recent progress towards bringing these parties into the 1993 Convention system is described in the introduction to this paper.

⁴⁴ First Round Presentation of Australia and New Zealand, p. 166.

⁴⁵ First Round Presentation of Australia and New Zealand, p. 167.

⁴⁶ For discussion of the requirements of specificity in the context of WTO disputes, for example, see J. Cameron and S. Orava, “GATT/WTO Panels Between Recording and Finding Facts: Issues of Due Process, Evidence, Burden of Proof, and Standard of Review in GATT/WTO Dispute Settlement” in F. Weiss, *Improving WTO Dispute Settlement Procedures: Issues and Lessons from the Practice of other International Courts and Tribunals* (Cameron May, 2000). The requirement under Article 38(2) of the Rules of Procedure of the International Court of Justice that an application to the Court be succinct was discussed in the *Case Concerning the Land and Maritime Boundary between Cameroon and Nigeria (Cameroon v Nigeria), Preliminary Objections (Nigeria v Cameroon)*, [1998] ICJ Rep 318, para. 98. It was held that this did not necessarily require the application to be “complete”, although the Court would apply strictly the principle *audi alteram partem*.

⁴⁷ That is, an argument to the effect that the case could not be heard because the rights of third states would form “the very subject matter” of the tribunal’s decision. Case of the Monetary Gold removed from Rome in 1943 (preliminary question) (*Italy v France, United Kingdom of Great Britain and Northern Ireland and United States of America*) ICJ Reports 1954 19. See arguments of First Round Presentation of Australia and New Zealand, pp. 190–196.

⁴⁸ Memorial on Jurisdiction of Japan, para. 97; see also First Round Presentation of Japan, p. 59.

Characterisation of the dispute by the parties

Japan sought to demonstrate that the parties to the dispute had originally considered it to lie under the 1993 Convention. Japan referred to the response conveyed by the Australian Minister of Resources and Energy to Japan's announcement that it would be conducting a unilateral experimental fishing programme. His letter of 25 February 1998 was couched exclusively in terms of the 1993 Convention:

"We need to make our utmost efforts to resolve our differences through measures which are developed co-operatively and endorsed by the Commission."⁵⁰

Letters sent by both Australia and New Zealand, of 31 August 1998, did refer to both the LOSC and customary international law, as well as the 1993 Convention. A close evaluation would be needed to determine whether the August 1998 communications conveyed the dispute as being equally a dispute under the LOSC and a dispute under the 1993 Convention. In any event, in replying to these communications Japan put the view that neither the LOSC nor customary international law had any direct bearing on the process of consultation under Article 16 of the 1993 Convention.

Japan contended that both New Zealand and Australia had presented the situation as one where obligations under the LOSC were relevant within the context of the tuna treaty dispute resolution mechanisms, but not vice versa.⁵¹ Japan said that:

"Like Japan, ANZ have consistently and from the outset treated the dispute as one concerning the implementation of CCSBT."⁵²

Japan characterised the dispute in this context (contrasting with its later description by Japan as purely scientific) as:

"a dispute concerning the manner in which the three States Parties are co-operating *within the framework of the CCSBT*".⁵³

For its part, ANZ pointed out first that the question of whether there was jurisdiction under the LOSC was an objective one, and did not depend on the point at which this jurisdiction had been invoked.⁵⁴

ANZ devoted attention at the same time to arguing that it had invoked the LOSC throughout the dispute, listing all correspondence. ANZ said it had

⁴⁹ First Round Presentation of Australia and New Zealand, p. 182 ff.

⁵⁰ Memorial on Jurisdiction of Japan, para. 60.

⁵¹ Memorial on Jurisdiction of Japan, para. 102.

⁵² Memorial on Jurisdiction of Japan, para. 101.

⁵³ Memorial on Jurisdiction of Japan, para. 100. Emphasis added.

⁵⁴ Reply on Jurisdiction of Australia and New Zealand, para. 61.

expressed its legal concerns at the meetings in November 1998 in Canberra and in December 1998 in Tokyo, and the establishment of an EFPWG was without prejudice to the legal character of the dispute. ANZ said that all initial efforts were focused, in a pragmatic fashion, on reaching agreement with Japan through negotiations, if at all possible.⁵⁵

During the hearings on preliminary objections Japan put the view that:

“There is no doubt that at a certain point ANZ woke up to the desirability from their point of view of introducing reliance upon UNCLOS and customary international law.”⁵⁶

Japan further implied that ANZ were misusing the LOSC to achieve the ends they desired under the 1993 Convention.⁵⁷ In describing Japan’s arguments in its award the tribunal recorded Japan’s argument that:

“Belated invocation of UNCLOS and customary international law by the Applicants is an artifice to enable the Applicants to seek provisional measures from ITLOS and to evade the consensual requirements of Article 16 of the 1993 Convention. It is not sustained by the factual history of the dispute.”⁵⁸

Japan argued in the first round of oral pleadings that Article 16 should not be abandoned merely because ANZ perceived some “transient tactical advantage”⁵⁹ in employing the LOSC procedures—taking the shape of provisional measures ordered by ITLOS. In increasingly descriptive terms, it was alleged that the applicants had manufactured a case that could plausibly be put to ITLOS for provisional measures,⁶⁰ abruptly terminating negotiations in July 1999 and throwing the onus onto Japan.⁶¹ Japan said ANZ had made a “swift vault”⁶² from the negotiations stage to the proceedings before the tribunal, and were seeking advantage from the situation. From this they should be barred, said Japan, not just because of lack of jurisdiction, but because allowing them to proceed would violate the maxim: “*ex turpi causa non oritur ius*”.⁶³

For its part, ANZ stated that it was clear settlement that could not be reached through continuing the negotiations because of Japan’s

⁵⁵ Reply on Jurisdiction of Australia and New Zealand, para. 75.

⁵⁶ First Round Presentation of Japan, p. 67.

⁵⁷ First Round Presentation of Japan, p. 23.

⁵⁸ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna Case*), para. 38.

⁵⁹ First Round Presentation of Japan, p. 51.

⁶⁰ First Round Presentation of Japan, p. 155.

⁶¹ First Round Presentation of Japan, p. 157.

⁶² First Round Presentation of Japan, p. 162.

⁶³ First Round Presentation of Japan, p. 163.

"insistence on recommencing unilateral fishing on its own terms; and its steadfast refusal to suspend its program".⁶⁴

Said ANZ:

"These actions seemed incompatible with a genuine desire to resolve the issues surrounding the experimental fishing programme."⁶⁵

Careful and thorough consideration had been given to the options for resolving the dispute, and a sustained effort had been made to do so.⁶⁶ With reluctance a case had been brought when a second year of unilateral fishing was imminent.

Characterisation of the dispute by the tribunal

One or two comments made by the arbitral tribunal should possibly be noted. The tribunal itself pointed out that the "most acute elements" of the dispute turned on the parties' ability to agree on a revised total allowable catch, and Japan's conduct of a unilateral experimental fishing programme; and the tribunal observed that these elements of the dispute were clearly within the mandate of the 1993 Convention.⁶⁷ The tribunal did not consider that this in itself precluded jurisdiction under the LOSC—but this paragraph of the award is open to the interpretation that there was considered to be one "real" or "most acute" dispute between the parties, which Japan argued lay under the 1993 treaty. Indeed, the tribunal's choice of words to describe its task at the preliminary objections stage was that:

"In the instant case, it is for this Tribunal to decide whether the '*real dispute*' between the Parties does or does not reasonably (and not just remotely) relate to the obligations set forth in the treaties whose breach is alleged."⁶⁸

The tribunal's award could also be considered to reflect Japan's arguments that the dispute, when first it was born, was not viewed as a dispute under the LOSC. This inference can be drawn from the tribunal's phrasing when it said that "once the dispute had ripened"⁶⁹ the diplomatic correspondence began to refer to the applicability of the LOSC. Finally, as Alan Boyle has noted, the tribunal considered it "artificial" to separate out the LOSC elements of a wider dispute "centred" on the 1993 Convention.⁷⁰

The perspective cultivated by Japan, according to which the "real dispute" was under the 1993 Convention, may have been more successfully injected into the

⁶⁴ First Round Presentation of Australia and New Zealand, p. 87.

⁶⁵ First Round Presentation of Australia and New Zealand, p. 88.

⁶⁶ First Round Presentation of Australia and New Zealand, p. 163.

⁶⁷ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna Case*), para. 49.

⁶⁸ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna Case*), para. 48.

⁶⁹ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna Case*), para. 50.

⁷⁰ Boyle, *op. cit.*, p. 448 (see note 4 above).

case than is apparent purely from the tribunal's legal reasoning. Perhaps also the tribunal was concerned to avoid a situation where it had jurisdiction only under the LOSC over a dispute also raising issues under the 1993 Convention.⁷¹

Comment

The breadth and potency of Japan's arguments supporting a concept that the "real dispute" in the SBT case lay under the 1993 Convention raises the question whether there is a matter of substance or of legal significance underlying this notion. Recently it was suggested that "[i]t may . . . be necessary to adopt a more rigorous approach to the question of what constitutes the essence of a case".⁷² However, the sense that there is a need to pin down and identify the elusive heart of such a dispute may be linked to difficulties associated with its scientific character.⁷³ Concerns about compulsory jurisdiction may be particularly acute for some States in relation to disputes with scientific aspects. Working towards resolving such matters as the most appropriate forms of dispute resolution for scientific cases, whether States are permitted a "margin of appreciation" in such disputes, and the extent to which precaution may be applicable, could reduce these pressures. The second part of this paper discusses certain of these matters as they arose in the SBT case.

Issues Raised By The Scientific Character Of The SBT Case

The second part of this paper investigates the idea that the SBT dispute was a scientific dispute and was therefore not suitable for international adjudication. This issue is considered together with other issues raised in the SBT dispute and connected with its scientific character. A number of the arguments put forward on these issues contributed in varying degrees to boosting Japan's arguments that there was no jurisdiction under the LOSC in the SBT case because the "real dispute" lay under the 1993 Convention. The arguments and issues canvassed in this paper include the appropriate form of dispute resolution in scientific cases, and a number of issues which would have gone to the merits of the case: the use of "best scientific evidence", the "margin of appreciation" or level of deference to be accorded to the decisions of national bodies on scientific matters, and the role of the precautionary principle or a precautionary approach.

Discussion of these concerns reveals the significance of the relationship between the science that is at issue in a dispute and the substantive law that governs the parties' actions. Ongoing consideration of the role of science in international dispute resolution will be required, as matters such as those touched on in this paper can be expected to arise again in subsequent international disputes.

⁷¹ Boyle, *ibid.*, p. 450 (note 4 above).

⁷² M. Evans, "The Southern Bluefin Tuna Dispute: Provisional Thinking on Provisional Measures?", (1999) 10 *Yearbook of International Environmental Law* 7 at 9.

⁷³ See discussion *ibid.*

The "best scientific evidence"

Among the tests for the legality of Japan's actions in the circumstances of the case would have been the "best scientific evidence" requirement in Article 119 of the LOSC. Japan said that the question of how it had assessed the data available to it was outside the knowledge of ANZ, and the ANZ claim was unsubstantiated.⁷⁴ ANZ argued that:

"By relying on its own scientific evidence and ignoring credible scientific evidence presented by Australia and New Zealand, Japan cannot be said to be taking measures which are based upon the 'best scientific evidence available'."⁷⁵

ANZ seems to have been arguing that Japan's decision to continue its experimental fishing programme demonstrated *ipso facto* that the "best scientific evidence available" test had not been met, as in the view of ANZ the best evidence dictated that the programme be stopped.

The "best scientific evidence available" test is probably best characterised as a description of the kind of evidence which ought to be considered in determining the catch levels of tuna, rather than a "standard of proof" which must be attained in the administrative decision-making processes concerned.⁷⁶ It should also be distinguished from the "best evidence" rule sometimes considered to apply in relation to the admissibility of evidence, which is of limited application in international tribunals.⁷⁷

In theory, requiring that the best evidence which is available be used for the decision-making of national bodies should produce decisions which are as sound and as uncontentious as possible. One consideration is the technical expertise to which each State's scientists, be they public or private, can obtain access. This could go to the question of "availability". There may be questions about whether a developing country's procedures will be judged by the same standards in reference to the "best scientific evidence" test in an international forum as those of a developed country. The need for international environmental issues to be decided on the best possible science *ab initio* underlines the importance of international technical cooperation and the significance of international frameworks for such cooperation. The centralised handling of scientific processes in international organisations, such as the Commission for the Conservation of Southern Bluefin Tuna, also provides the opportunity for the pooling of expertise.

⁷⁴ Memorial on Jurisdiction of Japan, para. 162.

⁷⁵ Statement of Claim of Australia and New Zealand, para. 58.

⁷⁶ D. Freestone and Z. Makuch, "The New International Environmental Law of Fisheries: The 1995 United Nations Straddling Stocks Agreement", (1996) 7 *Yearbook of International Environmental Law* 3, 18–19.

⁷⁷ D. Sandifer, *Evidence Before International Tribunals* (University Press of Virginia, 1975), p. 202 ff; V. Mani, *International Adjudication: Procedural Aspects* (Martinus Nijhoff Publishers, 1980), p. 216.

Where an international organisation or treaty body provides the framework for resource management then the requirement for best available scientific evidence arguably becomes a requirement to use the best scientific evidence available internationally rather than nationally. Even in such circumstances, there is however still scope for disagreement between scientists and between the parties on scientific issues, taking into account also that it may be a non-scientific intergovernmental body such as the Commission for the Conservation of Southern Bluefin Tuna which interprets scientific advice and makes decisions on catch levels. In the SBT case, polarisation between Australian and New Zealand positions and the Japanese position on the science suggests that the social and political questions which are woven into the processes of dealing with Southern Bluefin Tuna management have significant effect.⁷⁸ Where the science is uncertain, projections and estimates must be based on assumptions. The choice between those assumptions is likely in practice to be affected by a broad range of factors, including considerations which are not strictly scientific, such as the appropriateness of incorporating in scientific methodology a precautionary approach in relation to conservation matters. At this point it becomes difficult to assess whether a party's conduct should be assessed with reference to the best scientific evidence test, or other applicable international standards which may require precaution to be exercised in respect of the fish stocks in question.

For example, the virtual population analysis techniques used by the Scientific Committee of the Commission the Conservation of Southern Bluefin Tuna have required assumptions to be made about the distribution of fish in areas not currently being fished. As referred to in the first part of this paper, two competing models, a variable square model which assumes the absence of fish in those areas, and a constant square model which assumes the same numbers of fish in those areas as in the areas being fished, have produced quite different results. Additionally estimates of natural mortality in the stock are directly affected by beliefs about the age at which Southern Bluefin Tuna die. Maguire points out:

“If age 8 and older are selected, the analysis would suggest that the stock may have begun to recover, while if age 12 + were selected, the stock would have reached its maximum in the early 1990s and would be declining.”⁷⁹

The question of what constitutes “good science” has been considered in United States’ administrative law jurisprudence, as well as having been discussed in detail over the last few decades by academics in the field of the history and

⁷⁸ Maguire contrasts the lack of agreement under the Convention for the Conservation of Southern Bluefin Tuna with the consensus among scientists in respect of Atlantic Bluefin Tuna. There is no greater reliability in the latter case in respect of the scientific data, but it is hypothesised that the process of reaching consensus is assisted by the number and diversity of participants involved. *Op. cit.*, p. 211.

⁷⁹ *Ibid.*, p. 206.

philosophy of science. Since *Daubert v Merrill Dow Pharmaceuticals, Inc.*⁸⁰ the admissibility of scientific evidence in United States' courts depends on a broad concept of "scientific validity". To meet this test, the Supreme Court decision in *Daubert* required that scientific opinion be derived by scientific method, when previously the emphasis has been on the "general acceptance" in the scientific community of the scientific opinion being offered in testimony.⁸¹

Developments in multilateral international trade law also recognise that the key features of what may constitute genuine "science" do not necessarily include a requirement that a scientist belong to a "mainstream" scientific community, depending on the circumstances. There is an increased emphasis on scientific principles and methodology. Science is perceived as a process rather than an unmediated view of the natural world. Regulation of sanitary and phytosanitary measures in trade was given a new, scientific, foundation with the adoption of the WTO Agreement on Sanitary and Phytosanitary Measures in 1995, Article 2.2 of which requires any such measures to be based on scientific principles and not to be maintained without sufficient scientific evidence. In 1998, in *EC Measures concerning Meat and Meat Products (Hormones)*⁸² the WTO Appellate Body made it explicit that the Agreement "does not require that the risk assessment must necessarily embody only the view of a majority of the relevant scientific community". Responsible and representative governments could act in good faith on the basis of a diverging opinion from a qualified and respected source, "especially when the risk involved is life-threatening in character and is perceived to constitute a clear and imminent threat to public health and safety".⁸³ This was reiterated by the Appellate Body in March this year in *European Communities-Measures Affecting Asbestos and Asbestos-Containing Products*.⁸⁴ Thus, in the WTO context at least, an international tribunal may be expected to demonstrate an element of deference towards a State's choice of which science it chooses to rely on. There must however be limits on the permissibility of such deference, and where these limits might lie in respect of Article 119(1) of the LOSC is discussed below under the subheading "margins of appreciation".

At a hearing on the merits in the SBT case, the arbitral tribunal would probably have explored more closely the notion of "best scientific evidence available" in considering how a party's adherence to this Article 119 requirement should be assessed. The extent to which scientific assumptions and other aspects of scientific methodology can be identified and should be evaluated by international tribunals is an exceedingly complex issue and may need to be

⁸⁰ 113 S. Ct. 2786 (1993).

⁸¹ *Frye v United States* 293 F.1013 (D.C. Cir.1923).

⁸² WT/DS26/AB/R, WT/DS48/AB/R, 16 January 1998.

⁸³ *Ibid.*, para. 194.

⁸⁴ WT/DS135/AB/R, 12 March 2001, para. 178.

resolved on a case by case basis. However, the understanding that scientific knowledge is not static, and can be subject to complex institutional cultural and political influences, is vital for any international tribunal dealing with a scientific case.

The scientific nature of the “real dispute” and its suitability for adjudication

The scientific nature of the dispute, and its suitability for adjudication at all, was a subject addressed vigorously by the parties during the hearings on preliminary objections, and which was closely linked to Japan’s arguments that the dispute falls only under the 1993 Convention. Developing arguments it had made at the provisional measures stage, Japan argued that:

“Article 16 was fashioned to deal with the kinds of disputes likely to arise under the 1993 Convention, namely, questions of scientific judgment. Such questions are not justiciable.”⁸⁵

Japan argued that the matters detailed in the statement of claim raised questions of scientific judgement and opinion regarding the likely validity of scientific hypotheses and methodologies that had been articulated in discussions in the Commission for the Conservation of Southern Bluefin Tuna. The very nature of the work conducted by the Commission, and its Scientific Committee, and the agencies of the States parties working with it, meant that the differences that would come up were not of the sort appropriate for unilateral reference to judicial settlement.⁸⁶ Article 16 of the Convention was designed to cater for the kinds of disputes that were likely in this context;⁸⁷ and indeed Japan considered it was very unlikely that any disputes arising would be susceptible to legal decision. It was rare for international tribunals to be faced with issues beyond the limits of judicial settlement because States did not usually attempt to have them heard.⁸⁸ At all events, disagreements as to scientific judgements did not constitute disputes subject to compulsory arbitration under the LOSC.⁸⁹

Japan argued that there was a distinction between questions of fact and questions of judgement, and that the situation in the tuna dispute was not justiciable because it extended beyond questions of pure fact and into the realm of scientific opinion or judgement. All other aspects of the dispute were moot.⁹⁰ Japan argued:

“... questions as to how good the designs of experiments and validating mechanisms, like the setting of Total Allowable Catches and the

⁸⁵ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna Case*), para. 40(a).

⁸⁶ First Round Presentation of Japan, p. 181.

⁸⁷ First Round Presentation of Japan, p. 182.

⁸⁸ First Round Presentation of Japan, p. 189. Japan referred to a number of cases.

⁸⁹ First Round Presentation of Japan, p. 45.

⁹⁰ Japan’s arguments that the ANZ case was moot are not considered in detail in this paper.

recommendation of conservation matters (sic), are questions of scientific judgement, of science policy, if you will; and they are no more justiciable than other policy issues, such as the allocation of national fishing quotas.”⁹¹

Japan put the view that the setting of total allowable catches was not a suitable subject for judicial determination,⁹² and that in effect the tribunal was being asked to substitute itself for the Commission for the Conservation of Southern Bluefin Tuna. Under the system of the 1993 Convention, quotas were to be set by political negotiation and the agreement of the parties. Quotas were not set by law, and setting their levels formed part of the work of the Commission, a permanent institution with specialised mechanisms and the flexibility to respond to changing measurements of stock levels. The regulation of fishing through the processes as set up by the parties involved exercising an “administrative and distributive competence”—a political task inappropriate for the tribunal to undertake.⁹³

Despite the energy of these arguments, and their bearing on significant issues relating to the respective roles of international bodies and tribunals, the arbitral tribunal decided not to consider the question of admissibility. The tribunal considered that its finding on jurisdiction disposed of the case, but added that it did not think the dispute was confined to questions of scientific judgement.⁹⁴

Were further analysis of the susceptibility of scientific disputes to adjudication considered desirable in future cases, it would be helpful to investigate the legal framework in which the issues in question arose. If it were established that there was a certain level of scientific uncertainty as to relevant facts, inquiry might need to be made as to how a party might be obliged by law to act, given the situation of uncertainty. The issue here reflects concerns raised in the preceding discussion of the “best scientific evidence available” test—the challenge is to identify the point at which legal obligations cut in to regulate the situation created by uncertainties in the science.

What level of scientific uncertainty was there in the SBT dispute? ANZ considered there was a high level of scientific uncertainty, triggering a need for more pro-active conservation measures than Japan was willing to impose. Japan’s position about the degree of scientific uncertainty involved with the

⁹¹ First Round Presentation of Japan, p. 187.

⁹² First Round Presentation of Japan, pp. 181–2.

⁹³ Memorial on Jurisdiction of Japan, pp. 175–179; First Round Presentation of Japan, p. 190.

⁹⁴ It will be recalled that the International Tribunal for the Law of the Sea had adopted the view that: “a dispute is a ‘disagreement on a point of law or fact, a conflict of legal views or of interests’ (*Mavromattis Palestine Concessions, Judgment No. 2, 1924, PCIJ Series A. No.2, p. 11*) ... and ‘[i]t must be shown that the claim of one party is positively opposed by the other’ (*South West Africa, Preliminary Objections, Judgment, I.C.J. Reports 1962, p. 328*)”; International Tribunal for the Law of the Sea, Southern Bluefin Tuna Cases Order of 27 August 1999, para. 44.

conservation of the tuna was less clear. On the one hand Japan was prepared to rely on its own scientists' advice that conducting an experimental fishing programme would not irreversibly damage the SBT stock. On the other hand, Japan itself consistently characterised the dispute as one where aspects of the science were uncertain. Indeed, this was the rationale given for Japan's experimental fishing programme. The experimental fishing programme was designed to resolve uncertainty in stock assessment, using a method based on catch of tuna per unit of effort. The preamble to the Commission's Objectives and Principles for the Design and Implementation of an Experimental Fishing Programme, paragraph 2, reads: "Recognising that the lack of adequate scientific information impedes the ability of the Commission to make sound management decisions, there are measures available to Commission to improve the quality and quantity of the scientific information. Experimental fishing would be such a measure . . .". The first objective and principle for experimental fishing programmes is: "to reduce uncertainty in [the] stock assessment and projections as far as possible". Japan relied on this rationale for the programme, stating, for example:

"... the Japanese EFPs have been conducted to gather otherwise unavailable data to reduce scientific uncertainty with respect to SBT so that the Commission would be better informed to do its work."⁹⁵

How, then, were the parties obliged by law to act? This question reflects the conception of the SBT dispute put forward at several points by ANZ, which remains the one likely to prove pivotal in the future treatment of disputes involving science. ANZ denied that the dispute concerned only scientific disagreement:

"It is about the way a party to UNCLOS and to a regional fishing agreement may behave in circumstances of scientific uncertainty or management disagreement."⁹⁶

The next section of this paper considers the possible applicability of the precautionary principle to the question of how the parties may have been obliged to act, and looks at the potential in this case for the precautionary principle to have been viewed as a substantive legal obligation bearing directly on this question in addition to the relevant provisions of the LOSC.

The precautionary principle

The Southern Bluefin Tuna dispute, and particularly ITLOS' order for provisional measures, appears to have marked a new point in the evolution of

⁹⁵ Second Round Presentation of Japan, p. 82.

⁹⁶ Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna Case*), para. 41(c). See also First Round Presentation of Australia and New Zealand, pp. 63 and 198; Second Round Presentation of Australia and New Zealand, pp. 77–94.

the international legal system towards a comfortable accommodation of precautionary values in appropriate circumstances.⁹⁷

At the provisional measures stage of the SBT case the precautionary principle was argued strongly by ANZ, who viewed it as unquestionably a norm of customary international law:

"The precautionary principle must be applied by States in taking decisions about actions which entail threats of serious or irreversible damage to the environment, where there is scientific uncertainty about the effect of such actions. The principle requires caution and vigilance in decision-making in the face of such uncertainty . . . In light of this threat and uncertainty, it is Australia's position that the decision by Japan to carry out experimental fishing has been taken contrary to the precautionary principle."⁹⁸

Japan on the other hand contended that:

"The precautionary principle has not been incorporated in UNCLOS, and there is serious doubt that it has attained the status of a rule of customary international law. In any event, however, the precautionary principle is a concept that so far is not sufficiently well-defined as to serve as a principle of decision in this case. For this Tribunal simply to order the parties to apply that principle under a treaty such as the CCSBT which simultaneously mandates conservation and optimum utilisation of the SBT stock would provide no practical guidance. To articulate rules to implement the precautionary principle would be a huge undertaking with wide-ranging ramifications for virtually every nation with respect to every conceivable species."⁹⁹

As has been noted in previous commentary ITLOS did not expressly adopt the precautionary *principle* as a foundation of its decision to grant provisional measures. ITLOS acknowledged that it could not "conclusively assess the scientific evidence presented by the parties" and considered that "measures should be taken as a matter of urgency to preserve the rights of the parties and to avert further deterioration of the southern bluefin tuna stock".¹⁰⁰ The separate opinion of Judge Laing interpreted ITLOS' decision as an application of a precautionary *approach*, however.¹⁰¹ He considered that:

⁹⁷ The significance of the ITLOS decision is discussed by D. Freestone, "Caution or Precaution: 'A Rose By Any Other Name . . .'", (1999) 10 *Yearbook of International Environmental Law* 25.

⁹⁸ Statement of Claim, Australia, before the International Tribunal for the Law of the Sea, p. 28.

⁹⁹ Response of the Government of Japan to Request for Provisional Measures and Counter-Request for Provisional Measures before the International Tribunal for the Law of the Sea, pp. 28–29.

¹⁰⁰ The International Tribunal for the Law of the Sea, Southern Bluefin Tuna Cases Order of 27 August 1999, para. 80.

¹⁰¹ Separate Opinion by Judge Laing, para. 17, para. 19.

“In my view, adopting an *approach*, rather than a principle, appropriately imports a certain degree of flexibility and tends, though not dispositively, to underscore reticence about making premature pronouncements about desirable normative structures.”¹⁰²

Judge Tullio Treves also discussed the issue in his Separate Opinion, and took the view that:

“The precautionary approach can be seen as a logical consequence of the need to ensure that, when the arbitral tribunal decides on the merits, the factual situation has not changed.”¹⁰³

Commentators do not entirely agree that this constituted a precautionary *approach*, even if it is not to be viewed as an application of the precautionary principle *per se*. Indeed, it has been asked whether we should consider a precautionary approach as much more than “an expression of prudence and reasonableness”.¹⁰⁴

However, a key feature of the ITLOS provisional measures order was that it was directed at protection of both the rights of the parties and *the marine environment*, in accordance with Article 290(1) of the LOSC. The ITLOS decision was at the least significant as a first application of this conservation-oriented criterion for provisional measures in Article 290(1).

During the hearings on preliminary objections, ANZ observed that in the circumstances of the dispute, issues such as “necessary conservation action” and the precautionary principle came into the picture,¹⁰⁵ and noted that “the precautionary principle is about what to do in situations where there is scientific uncertainty on some issue relating to the performance of conservation obligations”.¹⁰⁶

Ultimately, the question of how the parties to the tuna dispute should have approached the scientific uncertainties involved in the management of Southern Bluefin Tuna would have gone to the merits of the case. Yet in the preliminary objections proceedings the question of precaution was also in effect recognised as potentially part of the dispute’s legal framework. In declining to consider Japan’s arguments that the dispute was not admissible because it concerned questions of scientific judgement, the tribunal indicated that policy judgements also had a bearing on the case. The applicability of precaution is a policy judgement regulated by law. However, we have no indication whether on the merits the tribunal would have contemplated applying directly the precautionary principle,

¹⁰² Separate Opinion by Judge Laing, para. 19.

¹⁰³ Separate Opinion by Judge Tullio Tullio Treves; and see Freestone, *op. cit.*, note 97 above.

¹⁰⁴ F. Orrego Vicuña, “From the 1893 *Bering Sea Fur-Seals* Case to the 1999 *Southern Bluefin Tuna* Cases: A Century of Efforts at Conservation of the Living Resources of the High Seas”, (1999) 10 *Yearbook of International Environmental Law* 40 at 44.

¹⁰⁵ Second Round Presentation of Australia and New Zealand, p. 79.

¹⁰⁶ Second Round Presentation of Australia and New Zealand, pp. 84–85.

or would have considered requirements of precaution only in the context of the applicable law under the LOSC.

We can expect that the importance of a precautionary approach would have been a factor carefully considered by the tribunal, given developments in the regulation of international fisheries, in particular under the United Nations Convention on the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. Article 6 of the Convention incorporates the precautionary approach, and the Convention employs a system of reference points intended to forestall over-fishing.¹⁰⁷ The development and application of such systems requires balancing numerous factors, including: the available data and a comprehension of the gaps in this data, a reasonably accurate reflection of the non-commercial and commercial value placed by society on the resources in question, and an appreciation of responsible attitudes to risk. These issues may be considered part of "second generation" thinking about the precautionary principle.¹⁰⁸ The requirements of the LOSC for conservation and optimum utilisation would seem call for a precautionary approach.

Margins of appreciation

Japan claimed it was entitled to a "margin of appreciation" in respect of the scientific aspects of the SBT case. Japan argued that neither the LOSC nor the 1993 Convention made provision for the "over-ruling" of decisions made in good faith by the States Parties on the conservation measures "necessary" in a given situation.¹⁰⁹ Generally, international tribunals respected national determinations in such matters unless they could be shown to be irrational, patently disproportionate, or otherwise fundamentally flawed. Japan accordingly argued that ANZ must be alleging bad faith on the part of Japan, which ANZ denied.¹¹⁰

What did Japan mean by a "margin of appreciation"? ANZ agreed that:

"there is a margin of appreciation, in the sense that it will be open to each party to act *reasonably* on its own *responsibility* in the light of available information ...".¹¹¹

¹⁰⁷ Article 6(1) and (2) provide:

"Article 6

Application of the precautionary approach

1. States shall apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment.

2. States shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures."

¹⁰⁸ An expression first used by D. Freestone and E. Hey in *The Precautionary Principle and International Law: The Challenge of Implementation* (Kluwer Law International, 1996), p. 249; see also Freestone and Makuch, *op. cit.*, note 76 above; Freestone, *op. cit.*, note 97 above.

¹⁰⁹ Memorial on Jurisdiction of Japan, paras. 165 and 172.

¹¹⁰ First Round Presentation of Australia and New Zealand, p. 168.

¹¹¹ Second Round Presentation of Australia and New Zealand, p. 90. Emphasis added.

However, the existence of a margin in this narrow sense was no basis for the exclusion of jurisdiction,¹¹² even were it considered to raise matters in connection with the merits of the case. The ANZ formulation also applied a standard of reasonableness, which would be a higher standard than those of irrationality, patent disproportionality or fundamental flaw postulated by Japan. Any suggestion that there was automatically any such broader margin is a contention that would require serious scrutiny.

When a party claims it is entitled to deference towards its decisions, the content of its obligations regarding the matter in question should first be examined.¹¹³ Under Article 117 of the Law of the Sea Convention: "All States have the duty to take, or to co-operate with other States in taking such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas". Under Article 119(1) of the Law of the Sea Convention, States shall take measures designed on the best scientific evidence available to them to maintain or restore fish populations at levels that can produce the maximum sustainable yield. There is, however, no obvious foundation in the provisions of the Law of the Sea Convention for Japan's claims that it was entitled to a special margin of deference towards its judgements.

In arguing for a margin of appreciation Japan cited cases of the European Court of Human Rights, and the decision of the WTO Appellate Body in the *Beef Hormones* case. The European human rights system analogy might be investigated, although there are some obvious differences with the LOSC regime. In the *Hormones* case the Appellate Body rejected the contentions of the EC that a "deferential reasonableness standard" should be applied to "all highly complex factual situations, including the assessment of the risks to human health arising from toxins and contaminants".¹¹⁴ In the EC's submission a deferential standard of review would have been similar to that applying under Article 17(6)(i) of the Anti-Dumping Agreement, where a panel is to determine whether the processes a party followed in reaching its decision were correct, rather than judging the outcome. However, the Appellate Body held that the panel had adopted the correct standard of review, making an "objective assessment of the matter before it"¹¹⁵ in accordance with Article 11 of the WTO Understanding on Rules and Procedures Covering the Settlement of Disputes.

Nevertheless, the possibility of a certain degree of deference towards decisions of national bodies in cases of scientific uncertainty should be investigated further. There has already been some discussion by commentators with respect in

¹¹² Second Round Presentation of Australia and New Zealand, p. 90.

¹¹³ Reply on Jurisdiction of Australia and New Zealand, pp. 183–4.

¹¹⁴ *EC Measures concerning Meat and Meat Products (Hormones) Report of the Appellate Body* 16 January 1998, AB-1997-4, WT/DS26/AB/R, WT/DS48/AB/R, para. 113.

¹¹⁵ *Ibid.*, paras. 113 and 253(b).

particular to WTO cases.¹¹⁶ Interest has arisen in the possibility of characterising international review of trade-inhibiting sanitary and phytosanitary measures primarily as a process review, rather than a review of substance. The rationale for this perspective consists partly in national bodies' expertise and their potentially more detailed knowledge of local conditions. The integrity of international decision-making could also be assisted by, in effect, delegating the task of assessing scientific evidence to national authorities: if subsequent scientific developments revealed underlying inaccuracy in the science on which decisions were based, the earlier errors would be attributable to national bodies. The review conducted by an international dispute settlement body would be focused on ensuring that national processes have been carried out to required standards, including technical and methodological standards, ensuring that they were rational and internally consistent. On this basis national processes would be considered a sound foundation for trade-restricting measures.

The application of deferential approaches and margins of appreciation must always depend, however, on the law which governs the dispute and the operation of the presiding dispute resolution body. It should be noted that in the case of the LOSC provisions at issue in the SBT case "necessary" measures for the conservation of the living resources of the high seas were required to be taken, contrasting with WTO cases where SPS measures are required not to be taken except in specified circumstances. Where international law sets an objective test, such as the taking of "necessary" measures, or requires a precautionary approach, then questions of deference can only come into play within this framework. Even more significantly, in the SBT case the LOSC requires the parties to co-operate in the management of SBT. Further consideration needs to be given to questions associated with deference to national bodies by international tribunals in scientific cases.

Forms of dispute resolution appropriate in scientific cases

Alternative procedures, actual and proposed, for handling the tuna dispute before it reached the stage of litigation included scientists in different capacities. The Commission is advised by a scientific committee in the regular course of its activities.¹¹⁷ The Commission additionally agreed to conduct a scientific peer review of the Southern Bluefin Tuna stock, reporting in August 1998, to help narrow scientific differences between the parties. Independent scientific advisors

¹¹⁶ S. Croley and J. Jackson, "WTO Dispute Procedures, Standard of Review, and Deference to National Governments", (1996) 90 *American Journal of International Law* 193; M. Trebilcock and J. Soloway, "International Trade Policy and Domestic Food Safety Regulation: The Case for Substantial Deference by the WTO Dispute Settlement Body Under the SPS Agreement"; D. Wirth, "The Role of Science in the Uruguay Round and NAFTA Trade Disciplines", (1994) 27 *Cornell International Law Journal* 817.

¹¹⁷ Article 9, Convention for the Conservation of Southern Bluefin Tuna.

were also involved in the deliberations of the EFPWG.¹¹⁸ Japan cited its perception of the role which would need to be played by scientists and experts in the field of fishing management¹¹⁹ as having led it to approach the Indian Ocean Tuna Commission to mediate the dispute—as well as the FAO, the EU and the US.¹²⁰ Japan also referred to the provisions in the Straddling Stocks Agreement for reference of disputes concerning matters of a technical nature to ad hoc technical panels,¹²¹ and endeavours to be made to resolve such disputes without reference to binding procedures.

Consideration of the merits of the *Southern Bluefin Tuna* case had the potential to offer further insights as to the forms of dispute resolution best suited to disputes involving scientific issues. The tribunal noted that Article 16 of the Convention for the Conservation of Southern Bluefin Tuna did not exclude modified processes of negotiation, mediation and arbitration, such as procedures designed to incorporate expert advice.¹²² Japan had argued strongly that modified procedures were needed for such a case, and that the parties to the 1993 Convention had excluded jurisdiction under Part XV of the LOSC for this very reason.

Parties to a dispute such as the one in the *Southern Bluefin Tuna* case have a broad range of options for dispute resolution which might incorporate expert scientific advice. By way of illustration, in national jurisdictions a great variety of procedures have been developed for use by the Courts, though not all are equally commonly used. Under the French *Code de Procédure Civile*, three different procedures are available for a judge needing technical assistance. The judge may appoint a *technicien* for the purposes of *constatation*, *consultation*, or *expertise*.¹²³ Although it is very infrequently applied, English law also makes provision for the

¹¹⁸ Memorial on Jurisdiction of Japan, para. 78; First Round Presentation of Japan, pp. 36 and 44—it was provided that the independent scientific advisors could even have had an “adjudicatory role”, had the parties so requested. During the proceedings, however, ANZ commented that it was for scientists to promote advice and managers to take decisions. Second Round Presentation of Australia and New Zealand, p. 22.

¹¹⁹ Memorial on Jurisdiction of Japan, para. 92.

¹²⁰ Memorial on Jurisdiction of Japan, para. 90.

¹²¹ First Round Presentation of Japan, p. 192.

¹²² Award on Jurisdiction and Admissibility (*Southern Bluefin Tuna* Case), para. 70.

¹²³ R. Taylor, “A Comparative Study of Expert Testimony in France and the United States: Philosophical Underpinnings, History, Practice and Procedure”, (1996) 31 *Texas International Law Journal* 181. The *constatation* is based on the practice initiated after the First World War of appointing a *huissier de justice*—a judicial officer—to investigate a matter and produce a *constat*, or factual statement reflecting what he found. This was known as a *constat d'huissier*. It included no opinion, and drew on no specialist technical knowledge. The new *constatation* procedure is, however, open to use by technically qualified *constatants*, although *constatation* is limited to the statement of facts without any expression of opinion on the consequences. The *consultation* is a means for a judge to consult and take advice from a *technicien* on relatively simple matters. The *expertise* is based on the traditional and, in some cases, relatively elaborate French procedure of the same name, used for obtaining expert reports. National and regional lists of experts are maintained to assist the courts in selecting suitable persons.

use of court-appointed experts.¹²⁴ An additional practice is the reference of particular matters, especially complicated matters involving technical facts, to a referee with special expertise in the field. Special provision for technical assistance is made in Admiralty cases, where there is a long tradition of employing assessors in case of accidents at sea.

Special Masters, first used in England in the Chancery courts to report on matters of evidence and accounting,¹²⁵ are increasingly used in the US in cases involving scientific or financial complexity, for example:

"(1) to evaluate scientific and technical evidence presented by the parties or by other experts and to rule on objections to evidence; (2) to assess claims and facilitate settlement, such as claims of loss in product liability cases; (3) to educate the fact finder-judge or -jury in the subject matter of particular controversies, such as patent disputes; and (4) to scientifically analyze and evaluate other evidence, such as evidence of discrimination."¹²⁶

Attention has also been called in the US to the inherent powers of courts, in exceptional cases, to appoint technical advisors,¹²⁷ whose role is to help a judge to come to terms with technical language and theory involved in a case.

In the international context, between sovereign parties, there is arguably even more scope to develop procedures for dealing with disputes involving science in the way most appropriate to the particular case. In the WTO context the basic processes for dispute resolution are laid down under the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU), but panels operating under the DSU have been confronted with the question of the best way to take expert advice in cases involving scientific questions. Gradually, practices are developing for the selection and consultation of experts. The evolution and growing sophistication of these processes can be seen, most recently, in *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*.¹²⁸ Although WTO processes are still under development, the detail with which the matter of taking expert advice in the resolution of international disputes involving science is addressed indicates the many possibilities for alternative processes which may be considered in international fora in the future. Procedures may be adjudicatory, quasi-adjudicatory, arbitral, or partly or entirely non-

¹²⁴ T. Hodgkinson, *Expert Evidence: Law and Practice* (Sweet and Maxwell, 1990), pp. 60–61 and p. 65. On the application of any party a judge may appoint an independent expert under RSC Order 40, rule 1. See also J. Jolowicz, *On Civil Procedure* (Cambridge University Press, 2000).

¹²⁵ S. Jackson, "Technical Advisors Deserve Equal Billing with Court Appointed Experts in Novel and Complex Scientific Cases: Does the Federal Judicial Center Agree?" (1998) 28 *Environmental Law* 431 at 457.

¹²⁶ *Ibid.*, p. 457, citing the Manual of the Federal Judicial Centre.

¹²⁷ *Ibid.*, p. 446.

¹²⁸ WT/DS135/R, Panel report of 18 September 2000.

adjudicatory. For law of the sea cases, the availability of special arbitration by experts under Annex VIII of the LOSC ought to be borne in mind.¹²⁹

In the event, jurisdiction under the LOSC was rejected, casting the parties back upon the institutional framework of the Commission for the Conservation of Southern Bluefin Tuna. Within that context it was, however, independent expert advice which ultimately proved to be the touchstone for resolution of the dispute. As mentioned at the beginning of this paper, the Commission set up a special process involving external scientific advice, with a decision mechanism built in to ensure that a conclusion on the future scientific research programme of the Commission would be reached. This system was in fact a complex one, and involved, if necessary, reference to the Scientific Committees of other institutions: the Inter-American Tropical Tuna Commission (IATTC) or the International Commission for the Conservation of Atlantic Tunas (ICCAT).¹³⁰ However, the positive result highlights the key role which can be expected to be played by technical experts in the resolution of scientific disputes.

Comment

The series of questions raised by scientific disputes in international law and identified in the second half of this paper are of course interconnected. Dispute resolution will need to ensure that disputes involving higher levels of scientific uncertainty are resolved with reference to relevant law on how to act in conditions of uncertainty. However, decisions about how to act in situations of scientific uncertainty are intricate policy and value judgements usually taken by executive, administrative or legislative bodies. A certain level of deference by international judicial bodies towards national decision-making agencies may offer an opportunity to rebalance international administrative and judicial powers in cases of scientific uncertainty, and should be given further consideration. Integral to this approach would be the development of appropriate grounds and procedures for the international review of national decisions. Additionally, the specialisation of adjudicatory methods of decision-making, and the consideration of non-adjudicatory alternatives, may facilitate dispute resolution and enable the parties to disputes to reach broader and enduring agreement on the overall management of the issues surrounding their dispute. Non-adjudicatory processes may also offer more room than adjudication to accommodate the gradual advance of science.

Further consideration of these issues should not undermine the important influence on the actions of States of the precautionary principle. A measured but

¹²⁹ Boyle, *op. cit.* See also D. Johnston, "Fishery Diplomacy and Science and the Judicial Function", (1999) 10 *Yearbook of International Environmental Law* 33 for discussion of the facilitative role played by ITLOS in the *SBT* Case, an approach which he encourages as a function of modern international tribunals.

¹³⁰ Development of a SBT Scientific Research Program including a Scientific Fishing Component by the CCSBT external scientists (CCSBT/0011/22).

precautionary approach in the face of scientific uncertainty remains one of the hallmarks of a civilised international society, and ought not to be compromised in any case where the international community truly values whatever may be at risk in a given case.

The above discussion provides some indication of the complex issues which would have been involved in adjudicating the merits of the *SBT* case—issues to which we can expect further thought will be given with a view to the handling of international scientific disputes in the future.

Conclusion

Japan’s argument that the “real dispute” in the *Southern Bluefin Tuna* case lay under the 1993 Convention for the Conservation of Southern Bluefin Tuna, rather than the United Nations Convention for the Law of the Sea, pervaded the preliminary objections proceedings. Among the strands of argument supporting the notion that the “real dispute” lay under the 1993 Convention was the characterisation of the dispute as scientific. This contention raised a number of issues, including questions about what may constitute good or “best” scientific evidence, the suitability of scientific disputes for international adjudication, the appropriateness of precautionary approaches, the validity of “margins of appreciation”, and the most appropriate forms of dispute resolution for cases involving science. This paper has provided the opportunity to highlight these questions and indicate some of the aspects in which they will require further analysis and development. The need to devote more attention to the role of science in international dispute resolution may be among the reasons for the rhetorical strength of arguments in the *Southern Bluefin Tuna* case that the “real dispute” fell under the 1993 Convention.