The WTO Case Law and The Precautionary Principle: On The Way To Recognition?

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Introduction

This paper represents a stock-taking of the role and recognition of the precautionary principle at the WTO, especially with regards to environmental protection and public health. The application of precautionary measures which an importing country may apply in order to ban or limit the access of goods over which its government has certain concerns is a hotly debated and contested issue in the trade policy literature.

Two multilateral frameworks are located at opposite ends of the spectrum with regards to the operationalization of the precautionary principle: The Cartagena Protocol on Biosafety to the Convention on Biological Diversity (BP) which is administered by the UN Environment Programme has gone further than any other multilateral environmental agreement in integrating precaution in some of its operational articles.1 These relate to the measures a member country may take in order to limit or ban the importation of a certain category of genetically modified (GM) products, namely living modified organisms such as seeds, and raw GM commodities such as potatoes or cotton. On the other hand, we have the WTO which as we shall see is very reluctant to accept precautionary measures that member countries might want to take in order to prevent or limit the importation of certain goods they consider as hazardous or otherwise undesirable.

Furthermore, somewhere in the middle of this spectrum (quite likely closer to the WTO’s position) we have the Codex Alimentarius, a joint FAO/WHO international food standard which has achieved a tremendous importance through its specification as the reference point for food safety and fair trade practices at the Uruguay Round multilateral trade negotiations.2 The Codex regulates trade in all food and drink products, but we shall limit ourselves here to the concerns of environment-related food safety, more specifically to GM products. It should be emphasized that the

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regulation of trade in raw GM food products is complicated by the fact that the task of developing and implementing import regulations in this product category has been put under the authority of both the Biosafety Protocol and the Codex Alimentarius. Although precautionary measures have been discussed extensively, a consensus on the operationalization of the precautionary principle looks unlikely at the Codex in the near future, this approach to risk management remains “highly contentious,” and the negotiators have for the time being decided to elaborate regulations only where they have an adequate level of trust in the scientific knowledge regarding food safety.³

When there is evidence that a risk to human health exists but scientific data are insufficient or incomplete, the Commission should not proceed to elaborate a standard but should consider elaborating a related text, such as a code of practice, provided that such a text would be supported by the available scientific evidence.

How does the international community deal with this divide that sets UN sister organizations so much apart with regards to precautionary policies? We should add that this divide is made more serious by the observation that the precautionary principle can truly be considered as representing one of the most important driving forces in the development of global environmental standards?⁴ Our legal and institutional analysis will show the roots of this division, as well as its implications and ramifications, especially with regards to some of the key WTO agreements. The timing of this stock-taking is particularly pertinent because the Biosafety Protocol has entered into force in September 2003, and at the same time it is indisputable that the year 2003 is of historical importance for the Codex Alimentarius also, because first of all it has concluded the internal discussion of its first ever comprehensive evaluation process (both internal and external) in its over forty year long history, and secondly it has concluded, at the July 2003 Session of the Codex Alimentarius Commission, i.e. its governing body, a four year long intensive negotiation process about the regulation of trade in GM food.

We are witnessing at present a considerable degree of interdisciplinary effervescence around issues like scientific uncertainty, risk analysis in the domains of environmental protection and public health, biosafety, and precautionary approaches, which tend to be contrasted with exporting countries’ rights to market access that they have acquired under the WTO agreements. What is the relationship between these two sides of the trade policy spectrum? That is the question to which we are trying to make a contribution in this article.

For this purpose we shall analyze some of the particularly pertinent Reports of the WTO’s Dispute Settlement Body (DSB), which consists of the dispute settlement Panel and of the Appellate Body. It should be stressed here that the Reports of these two ruling entities, especially of the Appellate Body when there is an appeal, are of


greatest importance for arriving at an understanding of the ways and means which characterize the functioning of the WTO as a multilateral trade system. This understanding is made relatively easy by the fact that the Reports are made freely accessible on the Web a few months after the ruling.\(^5\) It should furthermore be pointed out that the functioning of the WTO’s DSB, which represents the very essence of the organization’s nature, is highly procedural and at the same time much faster and arguably more predictable than other tribunals of international law. Most importantly, contrary to most tribunals in public international law, the DSB is the one and only court for trade conflicts, it is compulsory for WTO members, that is they don’t have the liberty of choosing a different dispute settlement mechanism. Finally, one needs to keep in mind that the dispute settlement panels consist of three members which are nominated on an \textit{ad hoc} basis for each dispute by the WTO Secretariat, whereas the panels under the Appellate Body, which also consist of three members nominated by the Secretariat, have a renewable mandate of four years.

\textbf{The GATT 1994, the TBT Agreement, and the Precautionary Principle}

There is obviously a potential for conflict between the right of an exporter to ship its goods and the sovereign obligation of the government of an importing country to safeguard its ecosystem and public health. The exporter’s rights are qualified under the WTO’s General Agreement on Tariffs and Trade 1994 (GATT) by what is called the necessity test (GATT Article XX). This Article specifies exceptions to the provision of compulsory market access, while at the same time it imposes severe limits on an importing country’s WTO-compatible justifications for restricting or banning access to its markets. Essentially this means that the importing country must demonstrate in the case of a dispute before the WTO’s DSB that there are no measures available which are less trade-restrictive, that they are not discriminating against imported goods or treating certain countries differently from others, and that the objectives of the trade restrictions or bans are justified because they are based on scientific procedures, reasoning and knowledge.

It has been argued in the context of the validity of precautionary measures which are brought to the WTO’s DSB\(^6\) that we are facing, potentially at the very least, a conflict of diverging kinds of logic. This is because the fundamental concept of the precautionary principle does not seem to be compatible with the WTO’s ambitious objective of generalized trade liberalization. The WTO’s then Director General considered in 1998 that this principle’s relationship with international trade law ought to be clarified.\(^7\)

\(^5\) \url{http://www.wto.org/english/tratop_e/dispu_e/dispu_e.htm#disputes}, or \url{http://docsonline.wto.org/gen_search.asp?searchmode=simple}


\(^7\) “We must recognize that much more progress is needed in the WTO Committee on Trade and Environment. Its work must be revitalized if the trade and environmental agendas are to advance in a mutually supportive way...Other areas where we need to clarify he relationship between both policy objectives – trade liberalization and environmental protection – include, among others...the so-called
Be that as it may, a fundamental fact should be emphasized before our discussion of precaution in the context of WTO law: We need to realize that in the framework of international environmental law precautionary measures are frequently integrated in the agreement’s text as a right or even an obligation regarding actions that a sovereign government may take in the fulfillment of its environment-related objectives and stewardship. In WTO law on the hand, the same principle represents an exception, i.e. an option offered to member states not to implement certain provision or to adjust them accordingly. The right to diverge from WTO agreements through the use of exceptions is controlled by the DSB as soon as a trade dispute arises between two or more member countries.

The DSB had an opportunity in two disputes so far to make a pronouncement in its ruling over the relationship between the GATT Agreement and the precautionary principle. These two cases, as we shall see in a moment, are so peculiar, however, one may even say anecdotal in the first case, that the Panel as well as the Appellate Body were unable or unwilling to use them in their Reports as a useful model for the clarification of this thorny relationship.

In a dispute opposing India and the US, the former invoked the precautionary principle with regards to the balance of payments. India in fact affirmed that quantitative import restrictions ought to be maintained out of precaution in order to prevent a destabilization of its balance of payments. In order to justify its claim, India claimed that the precautionary principle is integrated in GATT Article XVIII.11 through an interpretative note. It is important to note that India not only claims the right to use a precautionary measure in the usual sense of the term (i.e. a prudent approach), but also in the sense of the precautionary principle as it is discussed below in the present article, namely in the context of the Appellate Body’s decision on the dispute of Hormones.

The Panel did not accept this precautionary argumentation. It only provided a technical interpretation pertaining to the GATT Agreement’s so-called Notes and Supplementary Provisions in the case of the above Article which provides limited rights to developing countries to restrict imports when their balance of payment is jeopardized. The precautionary principle has been rejected implicitly by the Appellate Body’s ruling that such measures are justified only in clearly defined circumstances and not when a general possibility of a deterioration of the balance of payments exists as a result of the discontinuation of these measures. The DSB added that a precautionary interpretation of the legal text could lead to an open-ended maintenance of such import restrictions because one might nearly always claim that there is a danger of a worsening balance of payments in the more or less distant future. The fact that the Appellate Body has rejected a simple possibility leads us to conclude that it is using a preventive, rather than a precautionary approach, because the Panel had made the permission of quantitative restrictions dependent on a quasi-

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9 Ibid., para. 3.188 et 3.189.
10 These constitute an integral part of the GATT Agreement.
certitude that their elimination will necessarily lead to such balance of payment difficulties that they need to be re-established.

The second dispute where the Panel and the Appellate Body were asked to rule on the application of the precautionary principle in the context of the GATT Agreement is the Asbestos dispute between the European Communities (which represent France at the WTO) and Canada.\textsuperscript{11} Canada recognizes in its submission that asbestos is potentially hazardous but it considers that a complete ban on asbestos is disproportionate with regard to the legitimate objective of protecting public health. Canada’s argument is very clear: if France’s position were to be adopted, then every member would have the possibility to completely ban natural resources that may potentially be dangerous rather than using an approach which is based on a responsible risk management strategy that is determined by their utilization.\textsuperscript{12}

Canada thus considers that based on an explicit risk management policy it is possible to continue to produce, to sell and to use asbestos. Canada does not reject the possibility of using precaution in the WTO framework but it considers that this principle does not justify the import ban pronounced by the French government.\textsuperscript{13} As far as the precautionary principle invoked by France is concerned, neither the Panel nor the Appellate Body have taken a position. Nevertheless, this dispute merits some scrutiny here thanks to the fact that these rulings provide some guidance about the DSB’s way of thinking on scientific uncertainty in trade disputes. Indeed, it seems to implicitly provide some space for the precautionary principle by declaring that the acquisition of scientific certainty on all aspects of an issue is not required to justify the exceptions listed in the much-cited Article XX of the GATT Agreement.\textsuperscript{14} These exceptions provide WTO members with the right to impose import restrictions or bans under specific conditions, such as especially the protection of human, animal or plant life and health, and the conservation of exhaustible natural resources.

In any case, wherever precautionary concerns are at stake, the key issues tend to be different from those which have been at the core of most WTO disputes so far, namely a violation of one or more of the fundamental principles of the GATT Agreement which relate to non-discrimination. These consist first of all in the obligation for WTO member countries to treat imports the same way as equivalent nationally produced goods (the National Treatment principle articulated in Article III), and secondly the obligation of treating equivalent products offered by different exporting countries the same way (the general Most-Favored-Nation principle of Article I). WTO Agreements use the term « like » products, there is in fact considerable debate on the exact meaning of this term. Disputes over precaution or scientific uncertainty, however, tend to make national borders irrelevant because the same measures are usually applied on nationally products as well. Borders are a key issue, nevertheless, with regards to the determination of the sovereign powers that a state has the right to exercise as a WTO member, for instance with regard to the use of beef hormones, the importation of GM food, or the national legislation on GM seeds.

\textsuperscript{11} \textit{Communautés européennes – Mesures affectant l’amiante et les produits en contenant}, rapport Groupe spécial, 18 septembre 2000, WT/DS135/R.
\textsuperscript{12} \textit{Ibid.}, para. 3.12.
\textsuperscript{13} \textit{Ibid.}, para. 3.312
\textsuperscript{14} \textit{Ibid.}, para. 8.221
The GATT Agreement, as its name says, is of a very general nature. Let us look now at those two more specific WTO Agreements which are of particular pertinence here, namely the Agreement on Technical Barriers to Trade (TBT) and the Agreement on the Application of Sanitary Measures (SPS). The analysis of precautionary measures in the context of the TBT Agreement is somewhat delicate because this Agreement has so far been the basis of only one ruling (EC - Sardines), even though in the EC-Asbestos case, Canada considered that the European Commission’s ban on the complete life cycles of asbestos products violated the TBT Agreement. The ruling was made, however, based on the GATT Agreement.

Since the EC based its ban on the precautionary principle one was justified in hoping that the dispute settlement Panel would shed some light on the WTO’s perception of this controversial and many-faceted principle at least within the TBT Agreement. This turned out to be not the case, however. The Panel ruled that only some portion of the French asbestos ban falls within the scope of the TBT Agreement, namely the provisions on exceptions. Canada, however, had not used these provisions for its claim. The Appellate Body overruled the Panel on this specific point and considered that the TBT Agreement is indeed applicable to this case, but its analysis nevertheless also avoids to deal with the thorny implications of the precautionary principle and its place in WTO law. This ruling makes sense in this context indeed since the French asbestos ban is not based at all on scientific uncertainty but rather on the scientifically undisputed knowledge of the harmful nature of asbestos fibers. That is why the Appellate Body based its ruling on strictly economic grounds: it put the burden of proof on Canada to show that consumers are willing to pay the same price for chrysotile asbestos products as for alternative products (based on PCG fibres):

“The Appellate Body did not find that the products under consideration were not “like;” it simply found that Canada had not satisfied its burden of proving that those products were like products under GATT Article III.4.”

The Asbestos case is therefore related to public health controversies, but not really to the precautionary principle. Scientific certainty and confidence in scientific evidence relate to the principle of prevention, and not to precaution. Preventive measures are well established in WTO law, and they allow to justify an import ban on products whose hazardous or dangerous nature is established, as long as the other WTO provisions such as the above-mentioned principles of non-discrimination are fulfilled.

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The SPS Agreement and the Precautionary Principle

As far as the SPS Agreement is concerned, the WTO case law presently contains three significant disputes, and a fourth (Japan – Apples) is before the DSB at the time of this writing. These three cases illustrate well the diversity of stakes and measures that are covered under the SPS Agreement. These stakes are public health the first instance (Hormones), animal health in the second (Salmons), and plant protection in the third (Agricultural Varietals).

The Hormones case goes back to a conflict between Europe and the US in the late 1980s, i.e. it dates well before the creation of the WTO, in fact this conflict clearly has influenced the Uruguay negotiations on sanitary and phytosanitary measures. At that time the US government sought to achieve the establishment of a technical committee on trade barriers with the task of evaluating the scientific justification of banning the use of beef hormones. As it was still possible under the old GATT Agreement, the European Union vetoed the establishment of such a committee. This experience has contributed a great deal to a consensus over the need to negotiate the SPS Agreement. The two economic superpowers have been drawn into a commercial and scientific clash over beef hormones ever since.

The European Commission’s legal instruments which are attacked at the DSB by the US as well as by Canada consists of several EU Directives which ban the importation as well as the sale of meat and meat products which have been treated with certain hormones. Two arguments have been advanced by the EU. At the scientific level first of all, the Europeans fear an increase of cancer cases. Secondly, the decision makers have taken into consideration the public’s aversion towards this kind of food product. This dispute is undoubtedly the one which has prompted the DSB to elaborate the most significant ruling so far on the precautionary principle’s status at the WTO. The Hormones ruling has achieved this result in spite of the fact that on the whole it is actually rather evasive with regards to a clarification of the precautionary principle’s implications simply because all other rulings are even less useful in providing this much-needed guidance. The importance of this ruling is underscored by the fact that the Appellate Body has considered as “important” certain aspects of the relationship between this principle and the SPS Agreement.

The Panel and the Appellate Body agree that the precautionary principle could be used in the interpretation of Articles 5.1 and 5.2 of the SPS Agreement, but only if it had the status of a customary law – which it does not have as both bodies have concluded. However, they add, even once it should have reached that status, it will not override these two Articles. The Panel stressed that the EC has purposely

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chosen not to base its arguments on it. The reason for that strategic decision is very simple: the EC did not want to accept the interim nature of the SPS Agreement’s precautionary provision which is subject to the obligation of constantly reviewing and re-justifying the ban in light of whatever new scientific findings might be published. Furthermore, as Article 5.7 specifies, this has to be done “within a reasonable period of time.” Instead, it decided to institute a permanent ban on beef hormones. The three most pertinent paragraphs of the SPS Agreement’s Article 5 are cited for easy reference:\(^\text{22}\)

**Article 5**

**Assessment of Risk and Determination of the Appropriate Level of Sanitary or Phytosanitary Protection**

1. Members shall ensure that their sanitary or phytosanitary measures are based on an assessment, as appropriate to the circumstances, of the risks to human, animal or plant life or health, taking into account risk assessment techniques developed by the relevant international organizations.

2. In the assessment of risks, Members shall take into account available scientific evidence; relevant processes and production methods; relevant inspection, sampling and testing methods; prevalence of specific diseases or pests; existence of pest- or disease-free areas; relevant ecological and environmental conditions; and quarantine or other treatment.

7. In cases where relevant scientific evidence is insufficient, a Member may provisionally adopt sanitary or phytosanitary measures on the basis of available pertinent information, including that from the relevant international organizations as well as from sanitary or phytosanitary measures applied by other Members. In such circumstances, Members shall seek to obtain the additional information necessary for a more objective assessment of risk and review the sanitary or phytosanitary measure accordingly within a reasonable period of time.

In view of the complex and multiple implications which are triggered by SPS Article 5.7 it is justified to give it some more attention. The Article is at the center of the fourth SPS case **Japan – Apples**. The Panel develops in this Report\(^\text{23}\) one of the most exhaustive analyses of 5.7 which the DSB has done so far. We shall not discuss it here because the Appellate Body Report is not yet available at the time of this writing. For the analytical purposes of the present study it is of interest, nevertheless, to cite the Panel’s textual explanation of the conditions which are mandatory in order for the WTO to accept precautionary measures on a temporary basis. The Panel’s explanation represents essentially an editorial redrafting of the Article and it does in fact make it easier to understand. In view of the twisted and contorted language of countless passages in the WTO’s legal text one would hope that future Panels continue this very useful exercise! The Panel’s version of the

\(^{22}\)http://www.wto.org/english/docs_e/legal_e/legal_e.htm#sanitary

paragraph clearly show just how constrained the application of this principle is in the trade regime:

We recall that the Appellate Body in *Japan – Agricultural Products II* noted that Article 5.7 sets out four requirements which have to be met in order for a measure to be justified as a provisional measure. These requirements, cumulative in nature, are the following:

(i) The measure is imposed in respect of a situation where "relevant scientific evidence is insufficient";

(ii) the measure is adopted on the basis of "available pertinent information".

Pursuant to the second sentence of Article 5.7, such a provisional measure may not be maintained unless the Member which adopted the measure:

(iii) "seek[s] to obtain the additional information necessary for a more objective assessment of risk; and

(iv) "review[s] the … measure accordingly within a reasonable period of time."

The Appellate Body added that "whenever one of these four requirements is not met, the measure at issue is inconsistent with Article 5.7".

**The Hormones case: Some Advances on the Road to Recognition of the Precautionary Principles?**

In spite of the ambiguity surrounding the precautionary principle in general and in WTO law in particular it should be emphasized that the Appellate Body did make in this ruling at least three historically important statements which -- taken together -- provide the precautionary principle with a substantially enhanced status. It is not exaggerated to state, in view of the intense debate in several academic disciplines on the status of the precautionary principle, that the 1998 *Hormones* Appellate Body Report represents a milestone in the direction of a more general recognition of precautionary approaches in a body of law which so far has been particularly recalcitrant in this regard, namely WTO law.

First of all, the Appellate Body has explicitly recognized that the precautionary principle is incorporated in the SPS Agreement: “the precautionary principle indeed finds reflection in Article 5.7 of the SPS Agreement.”\(^{24}\) We can clearly see a certain embarrassment in the body’s refusal to explain what the precautionary principle really means for the WTO. This statement shows the limits as to how far the DSB will go at this point in time, we can see that from the fact that it mentions that the precautionary principle

principle has a “specific meaning” without mentioning anything about the sense or meaning of the specificity. We may assume that the notion of specificity as it is used here refers to the above-mentioned transitory nature of precaution as it is expressed in Article 5.7.

Secondly, the SPS Agreement’s heavy emphasis on scientific evidence and risk assessment procedures traditionally relies on quantitative results. The Appellate Body has recognized, however, that in some circumstances qualitative, rather than quantitative methods must be accepted: “we must note that imposition of such a quantitative requirement finds no basis in the SPS Agreement.”

Thirdly, the same scientific approach tends to be rooted in the majority opinion or judgement of scientists in a given discipline or specialty. A more prudent or precautionary outlook, however, will also take into consideration minority views of scientists who might in some cases conflict with the majority view. In Hormones the Appellate Body provides for the possibility that a member country can take into consideration the arguments of a scientific minority during in the evaluation of a risk:

The risk assessment could set out both the prevailing view representing the "mainstream" of scientific opinion, as well as the opinions of scientists taking a divergent view. Article 5.1 does not require that the risk assessment must necessarily embody only the view of a majority of the relevant scientific community. In some cases, the very existence of divergent views presented by qualified scientists who have investigated the particular issue at hand may indicate a state of scientific uncertainty.

In spite of this apparently rather broad support for precaution in the SPS Agreement, the Appellate Body has decided to rule that the EC’s ban of beef hormones does not respect the provisions of the Agreement. Should we conclude that regardless of these three points which tend to allow an importing country to take sanitary or phytosanitary measures based on a precautionary reasoning the DSB will come down on the side of sound science whenever it is faced with a specific decision? There may be some support for this conclusion in the Body’s rather murky and inconclusive discussion of four terms with a similar meaning: probability, potential, possibility and probability.

184. …What needs to be pointed out at this stage is that the Panel's use of "probability" as an alternative term for "potential" creates a significant concern. The ordinary meaning of "potential" relates to "possibility" and is different from the ordinary meaning of "probability". "Probability" implies a higher degree or a threshold of potentiality or possibility. It thus appears that here the Panel introduces a quantitative dimension to the notion of risk.

If the Appellate Body’s not very convincing philosophizing is to be interpreted in the sense that the possibility of an event cannot be taken into consideration, only its probability, then we would be entrenched squarely in the domain of traditional

25 Ibid., para. 120.
26 Ibid., para. 186.
27 Ibid., para. 194.
28 Ibid., para. 184.
preventative measures. In that case we would have to conclude that efforts to give an importing country the possibility of justifying precautionary measures in some cases of scientific uncertainty would have suffered a setback.

Be that as it may, in spite of the DSB’s recognition of the validity of the precautionary principle at the level of conceptual generalities, it has declared the EC’s ban on beef hormones as being WTO-illegal. This judgement is seen by many observers as a potential harbinger for future trade disputes over genetically modified food products with far higher economic and political stakes and sensitivities on both sides of the Atlantic. Multilateral trade politics and policies have changed considerably since January 1998. In view of the numerous other post-Seattle and post-Cancun problems facing the WTO, one may fear that these additional (self-made) pressures related to scientific uncertainty may put further strains on the organization. In today’s political climate they could in fact reinforce threats to multilateralism through a reinforcement of latent inclinations toward the conclusion of bilateral and regional agreements.29

To conclude our discussion of the Hormones case, we also need to take into consideration the EC’s convincing observation of a general nature that whatever Article 5.7 (or all WTO legal texts for that matter!) may mention about the precautionary principle, there is no reason to assume that these pronouncements must necessarily impede further developments regarding the status, the meaning and the pertinence of the precautionary principle.

Precaution versus Prevention

The second WTO dispute related to sanitary measures relates to an Australian regulation banning the importation of certain Salmon species which have not undergone a specific treatment to prevent certain diseases. Canada has contested these measures in early 1997. Contrary to the European strategy in the Hormones case, the Australians have not invoked the precautionary principle to justify their measure. The Appellate Body’s report is nevertheless interesting in our context for different reasons.

Referring to the Hormones case, the Appellate Body recalls that in a scientific risk assessment the risks must be verifiable, it considers that theoretical uncertainty is not included in the kinds of risks which need to be assessed under SPS Article 5.1.30 It consequently considers that the risk assessment presented by Australia is not in conformity with the SPS provisions. This conclusion regarding the flaws in Australia’s risk assessment has major consequences in this particular dispute. The Appellate Body considers that the incompatibility with Article 5.1 represents an alarm sign which indicates a hidden trade restriction.31

This means that like in the *Hormones* case, the sanitary measure has been declared as incompatible with WTO law primarily due to a lack of an objective risk assessment. The Appellate Body furthermore criticizes Australia for incoherence in its sanitary policy: the government applied these SPS measures to Salmons but not to gold fish in spite of the fact that their situation is identical. However, SPS Article 5.5 contains the following provision:\(^{32}\)

\[\ldots\] each Member shall avoid arbitrary or unjustifiable distinctions in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction on international trade.

This may be quite obvious in the context of the global trade agreement, however, the Appellate body went a step further in this 1997 ruling and declared that an SPS measure cannot have the objective of avoiding the occurrence of a possible risk but only of a probable one.\(^{33}\) As we have seen above, the strict distinction which is made here implicitly between precaution and prevention has arguably been softened somewhat in the *Hormones* case but it has by no means been put to rest.

This brings us to the question: what is really the dividing line between precaution and prevention? This seemingly simple question has implicitly or explicitly preoccupied countless articles and books on the precautionary principle. The internationally respected expert on environmental risk analysis Professor Nicolas de Sadeleer points out that instead of a clear dividing line we need to look at those two concepts as two ends of a spectrum.\(^{34}\)

The distinction between the preventive principle and the precautionary principle rests on a difference of degree in the understanding of risk. Prevention is based on certainties: it rests on cumulative experience concerning the degree of risk posed by an activity (Russian roulette, for example, involves a predictable one-in-six chance of death). Therefore, prevention presupposes science, technical control, and the notion of an objective assessment of risks in order to reduce the probability of their occurrence. Preventive measures are thus intended to avert risks for which the cause-and-effect relationship is already known. (…)

Precaution, in contrast, comes into play when the probability of a suspected risk cannot be irrefutably demonstrated. The distinction between the two principles is thus the degree of uncertainty surrounding the probability of risk. The lower the margin of uncertainty, the greater the justification for intervention as a means of prevention, rather than in the name of precaution. By contrast, precaution is used when scientific research has not yet reached a stage that allows the veil of uncertainty to be lifted.

The third and at this writing the last SPS dispute which was brought to the Appellate Body concerns the 1999 Japanese ban on the importation of various agricultural

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\(^{32}\) Ibid., para. 146.

\(^{33}\) Ibid., para. 123.

products (*Varietals*) from the United States. In this case the Reports of both the Panel and the Appellate Body do not provide much new information, they are essentially limited to a confirmation of those underlying perspectives which have guided the previous two cases. Japan considered that SPS Article 2.2 should be interpreted in light of the precautionary principle but the Appellate Body applied the same reasoning as in *Hormones* in this regard.\(^{35}\)

Thus the Appellate Body has (again) shunned the debate on the fundamental issues underlying precautionary measures in light of potential risk and scientific uncertainty. We may hypothesize that the fundamental reason for the DSB’s unwillingness to spell out more clearly what it considers to be a sovereign government’s trade-related rights and obligation in the fulfillment of its duties with regard to the protection of the environment and public health is very simple: the nature of scientific uncertainty is such that dealing with it is necessarily unpredictable in many instances. Such unpredictability, however, might seriously threaten the claim of predictability on which the WTO has based much of its credibility and legitimacy. One should think, however, that there are indeed ways and means for the WTO to substantiate its claims for global democratic legitimacy through a more qualified and more differentiated public discourse and concomitant legal perspectives.

As far as the DSB’s interpretation of SPS Article 5.7 is concerned, undoubtedly the Agreement’s most notorious one, we may consider that in *Varietals* it took some further distance from a precautionary interpretation. In spite of the fact that WTO law recognizes, as we have seen, the precautionary nature of this article within certain limits, the Appellate Body has *de facto* further narrowed these limits by expressing worries that an interpretation which is relatively broad and flexible regarding an importing country’s obligation of not maintaining any SPS measures without scientific proof would deprive the Article of its meaning.\(^{36}\)

This analysis has shown that none of the WTO disputes based on the SPS Agreement has been judged on the implicit or explicit merits of the precautionary reasoning. Should we conclude that the WTO is rejecting the precautionary approach? The answer to this question needs be carefully contextualized. The interpretation of the DSB, especially by the Appellate Body, seems to apply a rather flexible interpretation of the scientific method which underpins the whole SPS Agreement. In spite of the fact that in all three cases the SPS measures were judged to be WTO-incompatible it is clear the these rulings were not based on a rejection of the precautionary principle as such, but rather on the conclusion that the justification of these trade restrictions did not demonstrate that they were based on the required scientific risk assessment procedures. Christine Noiville’s interpretation of these three decisions is that they have been decided on the basis of formalities rather than on fundamental issues.\(^{37}\) In all three cases one may indeed observe that the importing countries were not very forthcoming with regard to their scientific evidence. It should be noted that this can be seen as a reaction which is in conflict with the precautionary principle because even though the latter is not (yet) defined in a generally accepted


\(^{36}\) Ibid., para. 80.

form it is widely acknowledged that a “best possible” research effort is required as an integral part of its implementation.

**Concluding Remarks**

In its decisions, the DSB seems to be aware of the fact that scientific knowledge is subject to all kinds of qualifications; this sensitivity contrasts with the more positivist view of science which is expressed through the SPS Agreement. Thus the Appellate Body acknowledges that scientific research is often unable to provide scientific certainty. We may thus conclude from the DSB’s interpretations that the sense of SPS Articles 2.2, 3.3 and 5.7 has significantly evolved. These articles insist that trade restrictions need to be justified through the establishment of scientific evidence which shows their necessity. The DSB, however, takes a less rigorous position by postulating a less demanding “rational relationship” between the trade measure and the risk assessment:

The requirement that an SPS measure be "based on" a risk assessment is a substantive requirement that there be a rational relationship between the measure and the risk assessment.

To summarize this discussion on the precautionary principle’s status within the WTO, we can conclude that the DSB does provide a certain flexibility and openness in order to take into consideration the complexities of scientific uncertainty and related precautionary measures. At the same time we also have to realize that the DSB’s flexibility is clearly quite narrow, it does not accept the notion that trade restrictions could be justified by the precautionary principle *per se*. Instead, it recalls that a proper risk evaluation must take into consideration the probability of the occurrence of a disease, of its propagation, and of the biological and economic consequences it may cause, and it must also assess the impact of the protective measures which the importing country decides to implement.

Last but not least, we also need to look briefly at another important element of the precautionary principle: public participation. Our analysis leaves for another day the discussion of a more fundamental issue related to the SPS Agreement, namely the question of the SPS’s inability to deal with wider societal and not necessarily science-based trade conflicts. Nevertheless, we need to recognize that this is an important issue, let us cite here a concern expressed by law Professor Thomas Cottier who has not only published widely on the WTO but has in addition to this record also a long WTO experience as a Swiss negotiator as well as a WTO Panel member:

38 See *hormones*, para. 193. See also *Japon - Varietals*, para. 79 : « à notre avis, il y a une « justification scientifique » pour une mesure SPS, au sens de l’article 3.3, s’il y a une relation logique (un lien rationnel) entre la mesure SPS en cause et les renseignements scientifiques disponibles ».

39 *Affaire Australie- Saumons*, para. 123.

A proper methodology referring to the social sciences should be developed in the context of risk management. In particular, this includes inquiries into the social and political acceptance of existing risk. Standards of review should be framed accordingly, and examination of scientific evidence and social and political criteria should be undertaken in consecutive steps.

The WTO's most contentious ruling in terms of the political and societal antagonism it has created, at least in Europe, is arguably the one in the *Hormones* case. At the time of this writing, the WTO is embroiled in another dispute between Europe and the US which is also staked on issues like scientific uncertainty, food safety, as well as more diffuse issues such as cultural traditions and preferences. There are not only parallels, however, there are also at least two important differences between the two disputes: First of all, the economic ramifications are far larger (and the environmental ones also!), and secondly, the WTO is presently in a politically and institutionally much weaker position than in January 1998 at the time of the *Hormones* ruling. This is the result of three events which are not really related to the issues discussed here, namely the 1998 Ministerial Conference in Geneva which sparked extensive riots in the city, as well as the 1999 and 2003 Ministerials in Seattle and Cancun which ended in a breakdown of the negotiations that were caused to a large extent by the emerging political empowerment of developing countries; their views on many trade policies differ considerably from the industrialized world.

Furthermore, to make matters worse, the United States, especially the present Administration, is known for tending to frown upon multilateral negotiations in general, and in the case of trade for pushing bilateral and regional agreements which undoubtedly represent a much worse alternative for the efforts of reconciling trade policy with global environmental protection and public health. None of the points raised here bode well for the WTO, the institution is presently caught between different and in some instances opposite currents. The ongoing and upcoming rulings on disputes which are surrounded by scientific uncertainty represent one of its biggest challenges and have the potential to further aggravate political and economic tensions between countries and regions.

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