Biotechnology, Life Sciences and Policy Networks in the European Union

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Biotechnology and the life sciences promise to revolutionise societies, notably by curing terrible diseases, making food healthier and the environment cleaner, all the while creating unprecedented prosperity. Fearing to lose much of these benefits to the United States, the leaders of the European Union (during the 2000 Lisbon Council) called for a transformation of Europe into a leading knowledge economy by 2010. Acknowledging the economic potential of their application, the Stockholm Council of 2001 agreed to place biotechnology and the life sciences ahead of information technology in developing the knowledge economy, and the Commission was asked to prepare a plan accordingly. In January 2002, the Commission published a strategy comprising a detailed action plan on biotechnology and the life sciences meant to attain the Lisbon objective. In short, the European Union has on its agenda for the next few years a transformation that also constitutes a sizeable challenge, given the well-known fears biotechnology and the life sciences inspire among Europeans.

I want to suggest in this short article that policy network analysis is particularly useful to understand the difficulties facing Europe in transforming itself into an amicable place for biotechnology and life sciences. Policy networks structure the interactions among policy relevant actors; they create regularity in the process of policy formulation and implementtation and thereby condition policy change. They do so by displaying varying asymmetry in the distribution of policy capacity among actors, varying degrees of interconnection between public authorities and civil society, varying cohesion around policy ideas, and varying openness to new actors (Montpetit, 2002: 6).

The current structural attributes of European policy networks, I argue, are likely to prevent the type of policy change necessary to transform Europe into a leading knowledge economy, however. Although one might object that the solution does not so much rest with policy change but with changes in networks themselves, the literature indicates that top-down network transformations, commanded by political leaders, are rarely successful.

Capacity and Interconnection

Catching up with the United States in the area of biotechnology and life sciences, the Commission suggests, requires significant policy change. Not only should policies be developed to reassure Europeans, but current policies are complex and send conflicting messages to potential investors in life sciences and biotechnology: “The clarification of the legislative environment within the EC will provide innovative firms in the various

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industries using biotechnology with an incentive to continue or even increase their investments in research" (Commission of the European Communities, 2002, 11). In order to realise this policy change, the Commission writes, capable public administrations are necessary: "The fast development of biotechnology and the broad range of applications requires a pro-active role for public authorities to monitor the impact on competitiveness of the existing policy framework and to anticipate emerging issues and pro-actively adopt policies" (Commission of the European Communities, 2002, 11).

In principle, the Commission is right to count on public authorities to orchestrate this industrial policy change. Policy network studies have long ago demonstrated that anticipa tory industrial policy changes, as opposed to reactionary policy changes, are most likely to occur where state agencies are strong enough to exercise leadership. The development of forward-looking policies is most likely, Atkinson and Coleman (1989, 51) argue, where decision-making power is concentrated within a single resourceful state agency. Uncommon, such a power concentration is often replaced in strong states by task forces or coordinating committees capable of encouraging "the independent thinking and broader perspective required for long-term policy planning."

Unfortunately, such a strong state does not exist at the supranational level in Europe. The structure of the Council has encouraged sectoral autonomy to a point rarely seen in Member States and the weakness of the Commission as a bureaucracy constitutes a serious obstacle to more coordination among autonomous sectors. As Streeck (1992: 105) claims: "inter-governmentalism and the veto powers of individual nations were typically strong enough to pre-empt or modify centrally made decisions." Under these cir-cumstances, the forward looking policy approach observed in the corporatist networks of several member states is unlikely to be reproduced at the level of the European Union. Unsurprisingly, Peterson (1997: 2) argues, "the character and type of interests which benefit from EU governance vary considerably between different policy sectors", hence the policy complexity which worries Commission officials and biotechnology industry representatives. To meet the extraordinary challenge of making supranational public authorities proactively work to align the divergent sectoral policies of the European Union concerning biotechnology and life sciences, the Commission simply proposes to strengthen its monitoring capacity (Commission of the European Communities, 2002, 27). More than ever, I can only concur, "it is important to appreciate how resource-poor the Commission is compared to national administrations. This contingency places severe limits on its power in EU governance and gives it strong incentives to 'network' with EU policy stakeholders" (Peterson, 1997, 8).

In fact, creating close interconnections with stakeholders appears as one of the strategy of the Commission to make up for its own weakness. Action ten of the Commission's strategic plan announces the creation of a *Competitiveness in Biotechnology* Advisory Group bringing together the industry and academia to assist public authorities.

There is a vigorous debate among students of Euro-groups about their capacity to ef-fectively participate in governance (for a summary of this debate see Greenwood, 1998). While some authors argue that most European interest groups are too fragmented along national lines to work in partnership with European institutions, Greenwood (1998, 87;

2000) contends that an increasing number of groups, including the biotechnology industry, possess sufficient resources to gather, in a sustainable manner, useful policy-making expertise. Greenwood, then, would have little doubt about the capacity of Industry to assist the Commission through the Competitiveness in Biotechnology Advisory Group.

However, Greenwood (1998, 102) also insists on the capacity of "a range of interests [including public interest groups]… to contribute to highly integrated and institutionalised forms of sectoral governance." Therefore, nothing guarantees the Directorate-General for Health and Consumer Protection, for example, will prefer the advice of the *Competitiveness in Biotechnology* Advisory Group over that of consumers or patients who are also capable of participating in sectoral governance. As Mazey and Richardson (2002, 156) argue, the policy process in the European Union is fragmented to a point where groups have several venues over which to choose for policy influence. European institutions and interest groups do not interconnect in an institutionalised and steady manner, a situation which makes for policies often evolving in unpredictable and even opposing directions, despite the best intentions of the Commission.

Cohesion

Worries related to the competitiveness of Europe in the area of biotechnology and life sciences do not only stem from the complexity of current policies, but also from the widespread public fears concerning potential unethical applications. "Without broad public acceptance and support the development and use of life sciences and biotechnology in Europe will be contentious, benefits will be delayed and competitiveness will be likely to suffer" (Commission of the European Communities, 2002: 12). Genetic engineering in the agro-food sector has notably suffered from a very low acceptance rate among Europeans and some view the integration of the more popular biomedical applications within the Commission's strategic plan as a wise approach to avoid blanket opposition. More fundamentally, however, the Commission proposes to reassure Europeans by creating an "inclusive, comprehensive, well informed and structured" societal dialogue to ensure life sciences and biotechnological applications are consistent with broadly accepted goals (Commission of the European Communities, 2002: 11-12).

The Commission assumes that the circle of participants in policy-making in the area of life sciences and biotechnology has been too narrow in the past, excluding a number of actors who represent important segments of civil society, and leading public suspicion toward the policies of the Union. Networks dealing with biotechnology were closed around a small number of experts sharing a common scientific paradigm and a language not easily accessible to lay citizens. The Commission's *White Paper on Governance* has already paved the way to such a criticism of existing policy networks in the area of biotechnology. Food crises, the Commission writes in the *White Paper*, "undermined public confidence in expert-based policy-making. Public perceptions are not helped by the opacity of the Union's system of expert committees or the lack of information about how they work. It is often unclear who is actually deciding – experts or those with political authority". Consequently, the Commission calls for opening expert networks to

"a wide range of disciplines and experience beyond the purely scientific" (Commission of the European Communities, 2001: 19).

In addition to curbing public suspicions, opening networks to wider participation, the Commission argues, makes for better public policy. As stated in the *White Paper*, "The quality, relevance and effectiveness of EU policies depend on ensuring wide participation throughout the policy chain—from conception to implementation" (Commission of the European Communities, 2001: 10). As Abels argues (2002, 15), however, it is far from clear that open networks formulate better public policies.

While a recent literature on deliberative practices suggests wide-open participation produces more acceptable policies (see Callon, Lascoumes and Barthe, 2001), years of policy network studies suggest some caveats to this conclusion. While several authors present examples of closed policy networks producing efficient policies and even generating trust (see Öberg, 2002; Detlef, 1998), I cannot think of a single study stressing the efficiency of wide-open policy networks. Why? Because openness risks to undermine the cohesion minimally required for negotiations, deliberations or dialogues among actors (Risse, 2000).

An open network enables whoever desires entering or exiting to do so. As actors constantly move in and out, shared experiences become scarce and trust difficult to build (Öberg, 2002). When actors cannot trust each other, their willingness to make concessions diminishes; they view rigidly holding their initial ideas as the best way to protect themselves against potentially ill-intended actors. Moreover, the movement of actors inward increases the spread of values, beliefs and ideas potentially translatable into policy designs. As Sabatier and Jenkins-Smith (1999: 125) argue, when the spread of ideas is so wide as to divide actors at the level of core "beliefs," any rapprochement through learning becomes difficult. In other words, in open network environments politicians cannot count on consensus to make decisions. Rather, open networks present a long and unstable menu of alternatives to politicians who can only decide by arbitration. Arbitration may not make for worse policies than consensus, but to those finding themselves on the loosing side, arbitration should not inspire trust in the quality of policies. As Scharpf (1999) argues, it does not suffice to listen to more actors to create a sense of input-oriented legitimacy; actors must also be heard.

Of course, for debates, fruitful deliberations and eventually policy innovations, some diversity in network actors' ideas is required. But if the purpose of greater network openness is to eliminate exclusion, such as appear to be the intention of the European Commission, diversity risks endangering the cohesion often associated with effective networks. The European *White Paper on Governance* suggests: "consultation helps the Commission and the other Institutions to arbitrate between competing claims and priorities" (Commission of the European Communities, 2001: 15). The European Commission might indeed need help if networks are open to the desired extent because controversial arbitrations will become increasingly common.

Openness

Beyond the rapid establishment of a linkage between network openness and good public policies, the Commission's analysis rests on the assumption that those at the top of European institutions can simply decide to open policy networks. It is as if policy networks can easily be manipulated and changed at will. However, policy network studies would suggest this assumption is wrong.

Agricultural policy networks have served as notorious examples of closed policy networks facing pressure to open up, particularly in Europe. Typical of these studies is the conclusion that closed policy networks are well equipped to mediate the nature of the changes pressed from outside, notably by politicians (Marsh and Smith, 2000: 8). The actors of these networks have over the years become primary sources of information and they have provided crucial resources for effective policy implementation. Therefore, to avoid any major disturbances in the management of public affairs, their participation in policy formulation can only be diluted with extreme caution. In fact, opening is most easily achieved when the actors inside the networks realize that they should allow new actors to enter. This type of predisposition, however, develops only over the long run through negotiations, exchanges of ideas and learning. What is more, learning cannot be commanded and controlled; politicians cannot demand network actors to learn, nor choose the lessons in their place. In short, actors inside closed policy networks can come to accept an opening of their network, but it may not be to the extent or to the actors politicians wish to grant a greater policy-making role. In other words, European leaders may loudly demand the opening of the networks dealing with biotechnology and life sciences, but it is far from certain that they will obtain the opening that they expect.

Nevertheless, the emergence of biotechnology and life sciences to prominence on the European Union's agenda is likely to trigger profound network changes. Marsh and Smith (2000: 8) argue that networks can radically change when the emergence of a new issue engenders a network clash. When problems of agricultural pollution reached the agenda of governments in Denmark and Sweden, Daugbjerg (1998) shows, it produced a clash between environmental and agricultural policy networks. Over time, in both countries, the networks reconfigured themselves, but in different ways, thereby generating the divergence between Danish and Swedish agro-environmental policies. A similar process involving network clashes and reconfigurations is likely to occur in the European Union because of increased interest in biotechnology and life sciences. The health policy network, the agricultural policy network, the industrial policy network, the environmental policy network, the consumer policy network, among others, all embody different, if not conflicting, values, beliefs and ideas relevant to biotechnology and life sciences policies. As the European Union engages in the development of these new areas, clashes between these policy networks appear unavoidable. Over time, a mixture of strategic action and communicative action will likely make ideas, alliances and patterns of interaction evolve slowly giving rise to new networks. Such a reconfiguration will also likely create new exclusions.

Evidence of a clash and the beginning of a reconfiguration of networks following the emergence of biotechnology and life sciences issues already exist in the European Union.

The main policy network relevant to biotechnology and life sciences at the end of the 1980s established close interconnections between researchers, industry and the relevant Directorates-General of the Commission during the development of *Framework Programmes for Research, Technology and Development*. The cooperation of these actors was mostly motivated by the improvement of the competitiveness of European industry and largely neglected ethical and social concerns related to biotechnology and the life sciences (Abels, 2002, 4). These latter preoccupations, however, were not left entirely unattended as a more marginal network, at the centre of which was the European Parliament, had began addressing them. According to Abels (2002, 4), the first significant clash between these two networks occurred in 1988 when the Commission presented the *Human Genome Analysis Programme*. The neglect of ethical issues was loudly denounced by the Parliament, helping to sensitize political leaders in Europe to the importance of these issues. Ever since, several groups, committees and institutions concerned with the ethics of biomedicine have gained importance, even within the Commission, which created in 1991 the *European Group on Ethics in Science and New Technologies*. As indicated in its strategic plan on biotechnology and life sciences, the Commission expects networking with ethics bodies to increase in the near future (Commission of the European Communities, 2002, 14). However, whether policy networks have been deeply reconfigured, pushing industry-focused groups and agencies to the periphery and ethics bodies closer to the centre, remains doubtful. Indicating the continued prominence of industry-focused groups, Abels (2002) rightfully suspects the Commission of using "ethics" in an instrumental manner, that is in a strategy to encourage the fast development of life sciences and biotechnological applications, if not to regain some lost ground to the European Parliament.

As the above example makes clear, network changes resulting from clashes are not necessarily the equivalent of network-opening. In contrast to the 1980s, when a single network, albeit marginal, was concerned with the ethics of biomedicine, the clash encouraged the industry-focused network to also include actors identified with a discourse on ethics. However, the actors included are those also capable of recognising the economic value of biotechnology and life sciences. Actors viewing biotechnology and biomedicine as an unnecessary, if not a dangerous development, keep forming, at best, a marginal network. In other words, the reconfiguration triggered by the clash of networks concerned with life sciences and biotechnology in the European Union is unlikely to conform to the desire of European leaders to create a "comprehensive and inclusive" dialogue. The policy network literature makes it clear: networks cannot be manipulated in such a way.

Conclusion

Networks, Weiss (1998) convincingly argues, do not always resist change but sometimes accomplish successful industrial policy transformations. This is so where public agencies possess sufficient capacity to mobilize strong interest groups behind a cohesive set of objectives. Unfortunately, few European policy networks possess these characteristics. Therefore, the European Union's strategic plan for biotechnology and life sciences overestimates the capacity of Community Institutions to mobilise the biotechnology in-

dustry, ethics bodies and groups representing concerned citizens behind the transformation of Europe into a leading knowledge economy. At least, this is what policy network studies would suggest.

References

Abels, Gabriele (2002), Experts, Citizens and Eurocrats: Towards a Policy Shift in the Governance of Biopolitics in the EU. *European Integration Online Paper* 6(19). http://eiop.or.at/eiop/eiop/texte/2002-019.htm

Atkinson, Michael M. and Coleman, William D. (1989). Strong States and Weak States: Sectoral Policy Networks in Advanced Capitalist Economies. *British Journal of Political Science* 19(1): 47-67.

Callon, Michel, Lascoumes, Pierre and Barthe, Yannick (2001). *Agir dans un monde incertain: essai sur la démocratie technique*. Paris : Seuil.

Commission of the European Union (2002). *Life Sciences and Biotechnology: A Strategy for Europe*. Brussels: COM(2002) 27 final.

Commission of the European Union (2001). *European Governance: A White Paper*. Brussels: COM(2001) 428 final.

Daugberg, Carsten (1998). «Linking Policy Networks and Environmental Policies: Nitrate Policy Making in Denmark and Sweden». *Public Administration* 76(2): 275-294.

Detlef, John (1998). «Environmental Performance and Policy Regimes». *Policy Science* 31(2): 107-131.

Greenwood, Justin (2000). «Organized Business and the European Union». In Greenwood, Justin and Jacek, Henry (eds.). *Organized Business and the New Global Order*. London: Macmillan Press in association with the International Political Science Association.

Greenwood, Justin (1998). «Corporatism, Pluralism and the Capacities of Euro Groups». In Claeys, Paul-H., Gobin, Corinne, Smets, Isabelle and Winand, Pascaline (eds.). *Lobbying, Pluralism and European Integration*. Brussels: European Interuniversity Press.

Marsh, David and Smith, Martin (2000). «Understanding Policy Networks: Towards a Dialectical Approach». *Political Studies* 48(1): 4-21.

Mazey, Sonia and Richardson, Jeremy (2002). «Pluralisme ouvert ou restreint? Les groupes d'intérêt dans l'Union européenne». in Balme, Richard, Chabanet, Didier and Wright, Vincent. (eds.). *L'action collective en Europe*. Paris : Presses de sciences po, 123-161.

Montpetit, Éric (2002). «Policy Networks, Federal Arrangements, and the Development of Environmental Regulations: A Comparison of the Canadian and American Agricultural Sectors». *Governance*. 15(1): 1-20.

Öberg, Perola (2002). «Does Administrative Corporatism Promote Trust and Deliberation?». *Governance* 15(4): 455-475.

Peterson, John (1997). States, Societies and the European Union. *West European Politics* 20(4): 1-23.

Risse, Thomas (2000). «'Let's Argue!': Communicative Action in World Politics». *International Organization* 54(1): 1-39.

Sabatier, Paul A. and Jenkins-Smith, Hank C. (1999). «The Advocacy Coalition Framework: An Assessment». In Sabatier, Paul A. (ed.). *Theories of the Policy Process*. Boulder: Westview Press, 117-166.

Scharpf, Fritz W. (1999). *Governing in Europe: Effective and Democratic*. Oxford: Oxford University Press.

Streeck, Wolfgang (1992). «From National Corporatism to Transnational Pluralism: European Interest Politics and the Single Market». In Treu, Tiziano. (ed.). *Participation and Public Policy-Making: The Role of Trade Unions and Employers' Associations*. Berlin: Walter de Gruyter, 97-126.

Weiss, Linda (1998). *The Myth of the Powerless State*. Ithaca: Cornell University Press.