

Introduction: Governing Regulatory Interaction: the Normative Question*

Viktor Mayer-Schönberger and Alexander Somek

Abstract: *The demise of the Keynesian National Welfare State and its transformation into a more competitive and interactive unit of governance has given rise to an increased interest in the processes that are shaping the legal framework for markets. For several decades, one force has been taken to be tantamount to the law of nature governing the interaction between jurisdictions, namely, the force of regulatory competition. However, this model is open to severe criticism of its emphasis on efficiency. First, elected decision-makers may not be interested in efficiency gains regardless of where the resulting distributive consequences may fall. Second, we suggest the theory of regulatory competition has a federalist bias that potentially blinds it to institutional alternatives. The model also rests on unexamined normative premises. Research has shown that competition is only one mode of regulatory behaviour. Cooperation and information flows play important roles in shaping regulatory activity as well. We contend that a more satisfactory model of regulatory interaction needs to take into account a variety of agents, standards, and systems. In devising such an alternative model, a satisfactory theory would have to understand the multiplicity of relevant agents beyond the narrow confines of the traditional nation-centred federal model. Standards guarding regulatory interaction would—not dissimilar to competition law—have to state its own limitations.*

The demise of the Keynesian National Welfare State and its transformation into a more competitive and interactive unit of governance¹ has given rise to an increased interest in the processes that are shaping the legal framework for markets. For several decades, one force has been taken to be tantamount to *the law of nature* governing the interaction between jurisdictions, namely, the force of regulatory competition.² This interest in competition was reinforced by a substantial increase in the fluidity of major factors of production, especially capital.³ Arguably, market actors are no longer effectively

* The articles stem from a workshop funded by and held at the Radcliffe Institute for Advanced Studies at Harvard University.

¹ For an account, see B. Jessop, *The Future of the Capitalist State* (Polity Press, 2002).

² For an overview of the literature and several waves of debate, see S. Deakin, 'Two Types of Regulatory Competition: Competitive Federalism versus Reflexive Harmonisation', (1999) 2 *Cambridge Yearbook of European Legal Studies* 231–260. D. C. Esty and D. Gérardin (eds), *Regulatory Competition and Economic Integration. Comparative Perspectives* (Oxford University Press, 2001). For a study of regulatory co-operation, see G. A. Berman, M. Herdegen and P. Lindseth (eds), *Transatlantic Regulatory Cooperation* (Oxford University Press, 2001).

³ See R. Gilpin, *Understanding the Global Political Economy* (Princeton University Press, 2001) p. 278.

locked into one market and its regulatory system. They can choose where to build a production plant, in which state to market their products or in which country to invest; arguably, there exists a mobile 'multitude' of workers, too, moving to where work seems to pay best.⁴

I Beyond the Law of Nature

With competition seen as the driving force underlying the interaction between jurisdictions, a theory has been developed suggesting that regulators are like providers of services who compete for investors, businesses (as their clients), and people in exchange for tax revenues and economic growth. Some have applauded this development, predicting that competition will increase efficiency,⁵ at any rate, as long as the coordination problem associated with the notorious 'race to the bottom' is brought under some centralised control.⁶ In sum, regulatory interaction is perceived as being driven by efficiency gains.

Underlying this approach is the idea that markets are not only the objects but also, in a sense, the invisible subjects of regulation. The regulatory work is done, effectively, by economic agents who vote for a regulatory régime 'with their feet' by allocating and reallocating to jurisdictions whose rules promise a higher rate of return for capital, knowledge, and human resources. Hence, the mobility of factors of production affects, for better or worse, the viability of regulatory régimes. Accordingly, the interactions between jurisdictions have been almost unanimously termed 'competitive'. Regulatory régimes are viewed as magnetic poles that attract factors of production. If their movement is free and uninhibited, the régimes are allowed to compete on one and the same level playing field.

However, this model, which takes regulatory competition for granted as if it were the law of nature,⁷ can no longer be sustained—for reasons connected with the fact that the regulatory competition orthodoxy just described partakes of the major shortcomings of all natural law approaches.⁸ It rests on unexamined normative premises, chief among which is the deification of 'efficiency'; and it is culpable of idealising social facts in light of these premises. As a consequence, the underlying normative commitments come to the fore in distorted descriptions of social realities.

The unexamined premises concern both the desirable goal of regulatory interaction and the institution acting to correct failures of regulatory interaction. The assumed goal is aggregate welfare increases regardless of their short- or middle-range distributive implications. The agent envisaged as being in charge of correcting failures of the regulatory market is some kind of centralised regulator who has the legal power to intervene in order to pre-empt ruinous rivalry between and among regional jurisdictions.⁹

⁴ See M. Hardt and A. Negri, *Empire* (Harvard University Press, 2000) pp. 210–214.

⁵ See the classical theory by C. M. Tiebout, 'A pure theory of local expenditures', (1956) *Journal of Political Economy*, 416.

⁶ As is well known, a revisionist theory has been advanced that questions to what extent 'races to bottom' exist. The revisionists suggest that regulatory competition may just as often lead to 'races to the top', or no race at all by giving rise to greater regulatory diversity among jurisdictions.

⁷ The tacit reference to Hobbes is intended. See T. Hobbes, *Leviathan* (Penguin, 1982).

⁸ See H. Kelsen, *Die Reine Rechtslehre* (2nd edn, Deuticke, 1960) pp. 410–411.

⁹ Admittedly, in a world where 'networks' are seen to dominate transjurisdictional transactions, the place of the centralised regulator may be seen as occupied by bureaucracies that coordinate their conduct in the

Upon closer inspection, it turns out that the law-of-nature approach is unconvincing on both counts. First, it is unclear why a politically accountable regulator could ever be interested in efficiency gains regardless of where the distributive consequences are going to fall, in particular, in a transnational setting.¹⁰ This is the challenge haunting every regulator who is confronted with the question of why local political constituencies should be satisfied with losing their jobs to people abroad. Mere belief in comparative advantage theory does not suffice to dispel the despair and bitterness associated with unemployment,¹¹ and it does not get politicians re-elected in their constituencies.

Second, the theory of regulatory competition has a federalist bias that makes it potentially blind to institutional alternatives. What regulatory interaction theory needs to take into focus, then, is a variety of potential mechanisms for second-order regulation of which a central government with pre-emptive powers may be merely a special and limited case.¹² The intervention by a central regulator that 'shuts down' once and for all the diversity among regulatory régimes through the adoption of a federal law may only be an extreme instance of a whole variety of interventions that may even encourage rather than discourage enduring cooperation.

The unexamined normative premises are reflected in an idealisation of facts. The orthodox approach is prone to perceive competition, or to presume its existence, where there in fact rarely is one. Empirical research has shown that competition is but one mode of regulatory behaviour. Not only are there significant counter-forces of coordination and cooperation across jurisdictions, recent research of political economists has shown that information flows between and among jurisdictions—on who regulates how and with what effects—play an important role in shaping regulatory activity.¹³ There is a great variety ranging from borrowing, emulation, free-riding, exchange of best practice, mutual learning all the way down to the unexamined following of trends and fleeting fads.

Interestingly, these shortcomings, if juxtaposed, can be seen to originate from a strong *nationalist bias*. The core vision underlying the law-of-nature approach is that of a centralised government being in charge of organising and channelling market activities from above. The second-order regulator, that is the regulator regulating the behaviour of other regulators, is itself seen as a first-order regulator, that is, a regulator with power to affect the behaviour of ordinary citizens directly. In a federal system, harmonised legislation not only pre-empts any further diversity, but is also addressed, in the case of federal laws, to citizens themselves. For example, a federal law against the use of intoxicating substances is targeted at removing diversity as much as it is aimed at

spirit of affirmative comity. On the coordination of conduct by the competition authorities in the United States and the European Union, see A-M. Slaughter, *A New World Order* (Princeton University Press, 2004) pp. 250–252.

¹⁰ One need not even leave the economic paradigm in order to argue this point. Actually, from a public choice perspective it could be argued that no regulator competing in a electoral market could succeed by selling his voters the loss of their jobs.

¹¹ Advocates of the comparative advantage creed see that differently; however, they can do so only by transcending the orthodox framework when arguing in favour of adjustment assistance. See, for example, J. Bhagwati, *In Defence of Globalisation* (Oxford University Press, 2004) p. 234; M. Trebilcock and R. Howse, *The Regulation of International Trade* (3rd edn, Routledge, 2005) pp. 316–320.

¹² There is no explanation offered why the rule to rectify regulatory market failure ought to be a legal power. It is equally conceivable that social rights, guaranteed on a constitutional level, perform a similar and maybe even more effective role.

¹³ See D. Lazer, 'Regulatory Interdependence and International Governance', (2001) *Journal of European Public Policy*, 474–492.

regulating conduct. When matters become seriously contested, the national legislature may step in and act as a legitimately superior force. In the event of conflict, the nation as a whole must intervene. Citizens are able to identify with this government as 'theirs'. There is no experience of alienation. Never did it occur to orthodoxy that, for example, in the face of a more questionable democratic pedigree¹⁴ the second-order regulator could also consist of a structure of cooperation for the exchange of regulatory techniques, a body of experts issuing standards or recommendations (such as, for example, the Codex Alimentarius Commission), or states concluding an international agreement.¹⁵

We contend, therefore, that in a post-statal regulatory world—more precisely, in a world in which the state as the privileged locus of regulation has been displaced—a more satisfactory theory of regulatory interaction needs to take into account a variety of agents, standards, and systems. On that basis, continuity and semblance can be uncovered not only in the relation between the national and the international level, but also as regards hard and soft forms of regulatory interaction.¹⁶

II Agents, Principles, and Structures

First-order regulators lay down rules and standards governing the conduct of ordinary citizens. No such regulator exists in isolation, and we shall see below that it is doubtful whether in an increasingly interdependent world an institution can be said actually to occupy this position. There is always *some* interaction between different first-order regulators. Second-order regulators, in acting upon first-order regulations, respond to these interactions. Thus understood, the law of regulatory interaction—if it amounts to law at all—is law acting upon the interactions among legal régimes. Such law can flow from one centralised agency, from decentralised intervention, or from cooperation. Choosing a simple example, a trade agreement concluded between states is a cooperative regulation of the effects of the regulatory interaction implicated in the coexistence of different legal régimes.

The example reveals that in order to enhance our understanding of a post-statal regulatory world it is useful to distinguish between *principles*, *agents*, and *regulatory structures*. The normative principle underlying a trade agreement is consent, the agents are states and the structure is self-regulation with regard to the ill consequences of the divergence of legal régimes. Evidently, questions about principles and agents are inexorably intertwined. From a hermeneutic perspective, the regulation of regulatory interaction needs to have at least a vague idea of what it would like to see accomplished before it can identify agents. For example, for the purpose of avoiding wage dumping it may be deemed sufficient to grant national trade unions the power to conclude minimum wage agreements. Such agreements are second-order regulations in that they pre-empt first-order regulations between employers and employees on a contractual level. The trade union may be given the legal power to conclude such agreements if

¹⁴ For a sharp indictment of international regulation for being anti-democratic, see the polemic by J. Rubinfeld, 'The Two World Orders', (2003) autumn *Wilson Quarterly* 22–36.

¹⁵ For an exploration of greater variety, see C. Joerges, 'Law, Science and the Management of Risks to Health at the National, European and International Level—Stories on Baby Dummies, Mad Cows and Hormones in Beef', (2001) 7 *Columbia Journal of European Law* 1–19.

¹⁶ See D. M. Trubek and L. G. Trubek, 'Hard and Soft Law in the Creation of Social Europe: The Role of the Open Method of Co-ordination', (2005) 11 *European Law Journal* 343–364.

wage dumping (first-order regulation) threatens to arise from lower wages in a neighbouring economy. Thus understood, the grant of such a legal power is a case of regulatory interaction between two countries. It may even be advisable to back up such agreements by some umbrella agreement that is concluded on a supranational level for it may help to reduce too much fluctuation in the terms of agreement. Conversely, a fix on agents may prejudice the principles available for regulation. For example, the normative standards emerging on the horizon of business associations or a chamber of commerce reflect the fact that they, as regulators, are not in a position to insulate themselves from competitive pressures.

With regard to *agents* of second-order regulation, a satisfactory theory ought to take heed of the traditional nationalist bias. A federal legislature need not be the model case. Indeed, one may even acknowledge that processes of information exchange or, indeed, ‘networks’—and not legally constituted subjects—are the ‘agents’ of regulation. This has been the experience with much transnational administrative law.¹⁷ Similarly, traditionally the core (and narrow) task of termination of regulatory interaction between more regional sub-units is usually assigned to a federal legislature. But this need not be the case. A second-order regulator may also, for example, be a judicial tribunal that is commissioned with adjudicating disputes, thereby promoting the norm of mutual recognition. Precisely such a regulatory role has been played by the Court of Justice over the last few decades.

Great variety exists also with regard to normative *principles* guiding and informing the behaviour of the second-order regulator. It is one thing simply to allocate regulatory powers in the relation of first- and second-order regulators, powers that may be used by the latter to create equality of condition, for example, by facilitating market access; it is a different matter to leave the choice of regulations to the force of the market. Given that the most salient mode of regulatory interaction is ‘regulatory competition’, one may desire to model the principles of laws governing regulatory interaction after *competition law*. First-order regulators would be seen as agents in one or the other form of a market for market regulation, constrained, however, only by standards of fair competition. If efficiency were the only goal then the emergence of a monopoly regulator (the Delaware or the California effect) would not be a cause of concern as long as another, more diverse use of jurisdictional space would not also lead to a Pareto superior result. The question would remain, however, whether there are other reasons, aside from efficiency, that need to be taken into account here. If indeed competition law were to be taken as the model for the regulation of regulatory interaction, one would also have to take into account that any competition law contains, in a sense, important self-denying ordinances. In its application, every sensible competition law reflects on its own limits, that is, it respects situations to which it ought not be applied, simply because of the need to exempt certain spheres of social life or modes of human interaction from competition *tout court*. This is the case where competition threatens to undermine the benefits flowing from solidarity. Examples coming to mind are agreements between employers and employees, and social insurance schemes.¹⁸ Any regulatory interaction adversely affecting such exemptions would *a fortiori* derogate from solidarity’s privileged place in European competition law, that is, the exemption

¹⁷ See Slaughter, *op. cit.* note 9 *supra*, at 16.

¹⁸ See, for example, Case C-218/00, *Cisal di Battistello Venanzio & C. Sas v Istituto nazionale per l'assicurazione* [2002] ECR I-691, paras 41–45.

from the application of Article 86 to insurance schemes with a discernible redistributive aim. It would be one of the tasks of a regulatory competition law to regulate its own boundary and, hence, to leave such exemptions in place for otherwise competition would be introduced into spheres where it can only have deleterious effects. The consequences for second-order legislation would be far from negligible. If regulatory cooperation, for example, through harmonisation would promise to bring about more equitable results then, conversely, jurisdictions would have a right to protect themselves in the absence of harmonisation through countervailing measures against the adverse impact of competition that originates from countries with lower standards.

Lastly, it is obvious that standards concerning the governance of regulatory interaction are components of vertical and horizontal *structures*. The most notorious norm for organising such a structure is national sovereignty. According to the traditional norm of national sovereignty, regulators are free to pick and choose regulations as they see fit—always with an eye, no doubt, to what their neighbours do—and to ensure the effectiveness of their choices by restricting the mobility of factors of production. In an age in which the application of various anti-discrimination rules has made national boundaries much more porous, the resulting mobility of goods, services, and factors of production necessitates national regulators to respond to the challenges posed by the régimes of their neighbours. In a sense, *most* regulators are demoted to a position where the best they can hope for is to make a successful ‘second move’, unless they occupy the position of a monopoly of quasi-monopoly regulator.¹⁹ This affects the structure of regulatory systems. Each regulator finds herself embedded in a *systemic context* in which her action is based upon the anticipation of the actions of others.²⁰ Arguably, the insecurity involved in this context may create incentives for cooperation. This is the explanation why the evolution of multilevel systems promises to stabilise regulatory régimes. For some such systems it may be possible to calibrate the use of certain standards or competence to specific levels,²¹ with the growing need to absorb systemic indeterminacy through cooperation. However, it should not come as a surprise that the jurisdiction allocated to different units and the standards used at different levels are increasingly subject to interpenetration. Systems of regulatory interaction are more likely to resemble the German federal model of interpenetration (*Verflechtungsmodell*)²² than the individualistic world depicted in the law-of-nature approach in which regulators are perceived to exist in isolation and under the supervision of the federal level. Consequently, the use of legal standards to delimit jurisdictional spheres becomes

¹⁹ As has been suggested by Roe, Delaware is keenly aware of the manifold restrictions and limitations of what it can do. It must not, for example, take measures that anger a particular constituency too much, or that constituency would go to the federal level and try to get legislation passed that would pre-empt Delaware. This leads Delaware to be fairly consensus driven in its company law policies. But the one force Delaware retains, Roe argues, is a strong ‘first mover advantage’. It can shape the playing field by moving first, and thus influencing the debate, prompting emulators, and information flows etc. This suggests that in exceptional cases, some first-order regulators are indeed also first movers where second-order regulation is concerned; see M. J. Roe, ‘Delaware’s Politics’, (2005) 118 *Harvard Law Review* 2491.

²⁰ On policy-networks, see, for example; B. Kohler-Koch and R. Eising, ‘The Evolution and Transformation of European Governance’, in B. Kohler-Koch and R. Eising (eds) *The Transformation of Governance in the European Union* (Routledge, 1999) pp. 14–35.

²¹ For a remarkable attempt, see J. Trachtman, ‘Trade and . . . Problems, Cost-Benefit Analysis and Subsidiarity’, (1998) 9 *European Journal of International Law* 32–85.

²² See A. von Bogdandy and J. Bast, ‘The European Union’s Vertical Order of Competences: The Current Law and Proposals for Its Reform’ (2002) 39 *Common Market Law Review* 227–268.

increasingly difficult, as systems have the prodigious proclivity to *rationalise* every move towards cooperation as they see fit.²³ For every progress of interdependence there seems to be a legal base, and even if it is only an implied power. It is a world in which voluntary compliance on the basis of mutual accommodations and compromise appears to work more effectively than supervision on the basis of norms.²⁴ Against this background, the exchange of information among jurisdictions and cooperative problem-solving appear to just as promising as the allocation of regulatory powers.

III Models

The observations above are highly preliminary and need to be elaborated further in the future. We are aware, though, that the outcome could amount to only one model among others, in particular as regards underlying normative commitments. What we would like to invite attention to, in this special issue, is that regulatory interaction not only needs to be taken seriously from a normative point of view, but that conceivable models also involve different normative commitments. There is no consensus as to whether the intervention by the second-order regulator ought to be guided exclusively by values such as consumer welfare and efficient resource allocation or also by concerns about the integrity of fair industrial relations or the sustainability of a high level of social protection. It goes without saying that transnational regulatory régimes will have to respond to these questions in the process of globalisation. The choices that need to be made will be eminently political choices.

The articles of this special issue reflect *two related intellectual developments*. First, they document the *move away from the orthodox law-of-nature approach*. Even when the emphasis lies on reconstructing the actual, there is a subtle indication of where the Promised Land may be found. Second, some contributions more fully *introduce normative models*, articulating certain commitments with regard to principles, agents, and structures. Needless to say, each model has relevance for the interpretation of existing second-order régimes, regardless of whether those régimes exist on a national or international level or whether they are composed of state actors, private actors or a combination thereof.

A *Breaking Away from Orthodoxy: the Value of Diversity*

Simon Deakin offers a most forceful critique of the widely shared one-dimensional model of regulatory competition according to which contenders eventually have to face up to the necessity of following the lead taken by a 'monopoly regulator'. In contrast, Deakin argues that regulatory interaction, in the European Union at any rate, is a much more experimental process, giving rise to enduring regulatory diversity. Most intriguingly, Deakin attributes a different *value* to regulatory competition. Competition is valuable, not because a welfare-maximising result will emanate from it, but rather

²³ In a recent paper, Gráinne de Búrca expressed scepticism with regard to the idea that the allocation of competence can be subjected to legal control in the European Union. On this, see G. de Búrca, 'Setting Constitutional Limits to EU Competence?' (2001) 2 *Francisco Lucas Pires Working Paper Series on European Constitutionalism* 8.

²⁴ See Slaughter, *op. cit.* note 9 *supra*, at 5, 27, 34; for a more critical perspective on the same state of facts, see B. S. Chimni, 'International Institutions Today: An Imperial Global State in the Making', (2004) 15 *European Journal of International Law* 1–37 at 5.

because it is indispensable in generating and collecting information. But competition will serve this function only as long as it is aided by regulation that helps to preserve diversity. The idea is that regulation is not interference into a regulatory market, but the lubricant that helps to sustain it. Without diversity, Deakin contends, 'the stock of knowledge and experience on which the learning process depends is necessarily limited in scope'. It is only from diversity that a wide variety of options can emerge that is indispensable to create the pool of knowledge necessary for the solution of common problems.

David Lazer introduces a pioneering model of three different modes of regulatory interaction: competitive, coordinative, and informational. Whereas the first covers phenomena dealt with by the law-of-nature approach, the other two invite attention to matters such as the benefits accruing from emulation or information diffusion. For example, the coordinative mode of interaction explains why high standards are possible when a critical number of jurisdictions is taking the lead. Informational interdependence comprises several mechanisms for the diffusion of information. Lazer demonstrates how each mode of interdependence encapsulates its own normative principle. While for the competitive mode avoiding beggar-thy-neighbour policies is essential and for the coordinative mode it is essential to facilitate convergence, the informational mode requires the creation, dissemination, and aggregation of information. The emphasis on the greater diversity originating from regulatory interaction is thereby reconfirmed.

B Minimalism—Federalism—Interpenetration

The articles by Trachtman, Szyszczak, Kumm and Zumbansen explore basic principles underlying structures of regulatory interaction. In addition, their contributions also show how such principles are associated with different degrees of interpenetration. Whereas Trachtman and Kumm, each in their own way, attempt to lend contours to the meaning of subsidiarity in federal systems, the article by Szyszczak takes stock of the experiences that have been made with the Open Method of Coordination in the EU. Zumbansen, lastly, puts regulatory interaction in the wider context of global economic dynamics, and suggests a system theory approach to comprehend law's borders in this multilevel and multi-polar process.

Joel Trachtman offers a sketch of how legal powers ought to be allocated in a multilevel system, if such a system were based on normative individualism. By a commitment to normative individualism, Trachtman means that any such system ought to be governed by the concern for efficiency in the satisfaction of preferences. It is an attempt, in fact, to construct a multilevel regulatory system on the basis of a few principles alone and to contrast the result with the world trading system of the WTO. One core principle is that of the regulatory externality. As a consequence of regulating conduct, states impose costs on outsiders without commensurate benefit or without legitimation by their consent. The challenge posed by regulatory interaction is to cope with externalities through the construction of a multilevel system that maximises, or at any rate enhances, aggregate welfare. On the basis of an analogy between jurisdictional space and private property, Trachtman uses transaction-cost methodology to deduce the basic outlines of such a system. The question of subsidiarity can be addressed from that perspective in a manner that is analogous to the question of which monopolies are to stay in place because of their welfare enhancing effect.

Erika Szyszczak explains in which respect the Open Method of Cooperation (OMC) is at odds with traditional forms of community governance and actually counter to

normative standards of openness, transparency, legal control, and parliamentary participation. At the same time, however, the method promises to make process in regulatory interaction where the community has not made any progress so far. The OMC is a clear case of network regulation, in which the line dividing public and private actors becomes increasingly effaced. Participation, the degree of which varies considerably, may also be the key to success for the only means available to admonish ‘underachievers’ is through public shaming in reports circulated by the Council.

Using recent decisions on tobacco regulation, Mattias Kumm critiques the reasons for federal intervention enlisted by the Court of Justice. Focusing on the interface between transnational markets and regulations enacted through local democratic processes, he detects what he calls a potentially corrupting structural bias in favour of mobile international actors. In these cases, it is not competition that is distorted, but the local democratic processes that regulate economic activity. Based on this notion, he develops a conceptual framework founded on the principles of subsidiarity and proportionality to assess the desirability of federal intervention. Unlike other judicial institutions, the Court of Justice is relatively well equipped to police jurisdictional boundaries, utilising the subsidiarity and proportionality framework.

The final paper, by Peer Zumbansen, takes Kumm’s emphasis of democratic processes one step further. Zumbansen suggests that conventional models juxtaposing regulatory competition and harmonisation fail to realise the persisting mixture of approaches already in place. Focused on ideal types that only exist in hypotheticals, the orthodoxy fails to appreciate that the process of negotiating regulatory measures is itself reflective of the constant need to adapt regulatory mechanisms to the demands of an increasingly complex field of societal activities. Zumbansen contrasts this failure of the orthodoxy with a system-theory based approach that may be much better suited to understand the processes of legal delineation in a multilevel and multi-actor regulatory process.

First submitted September 2005
Final revision accepted December 2005