The Dependent Variable Problem in Assessing Policy Change: 
Re-Conceptualizing the Orthodox Understanding of Policy Dynamics

Michael Howlett
Burnaby Mountain Professor,
Department of Political Science,
Simon Fraser University
Burnaby, British Columbia,
Canada V5A 1S6
howlett@sfu.ca

Ben Cashore
Associate Professor
School of Forestry and Environmental Studies,
Yale University
New Haven, CT
USA 06511-2104
benjamin.cashore@yale.edu

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Abstract:

A key theme among seminal contributions to policy studies, including Baumgartner and Jones, Sabatier and Jenkins-Smith, and Hall, is that “external perturbations” outside of a policy subsystem, usually characterized by some type of societal or political upheaval, are critical for explaining the development of profound and durable policy changes which are otherwise prevented by institutional stability. These ‘homeostatic’ assumptions, while useful for assessing many cases of policy change, however, do not adequately capture historical patterns of policy development in many sectors. The roots of this problem are traced back to the ‘dependent variable problem’ in comparative policy research whereby different levels or orders of policy-making are incorrectly juxtaposed, providing a parsimonious, but sometimes empirically incorrect view of policy change. Revising existing taxonomies of policy elements provides a superior identification of the levels and processes of change and reveals more than one mechanism through which significant policy change can occur. Three of these alternative patterns - a “neo-homeostatic” one in which paradigmatic changes occur through endogenous shifts in goals; a ‘quasi-homeostatic’ one in which changes exogenously result from change in objectives and settings; and a ‘thermostatic’ one in which policy goals are flexible enough to allow, if not promote, profound endogenous change - are discussed.

1. The Contemporary Study of Policy Dynamics: Moves Towards the Development of a New Orthodoxy in the 1990s.

The contemporary study of policy dynamics owes a broad debt to two studies which appeared 30 years apart: Charles Lindblom’s 1959 work on incrementalism and Peter Hall 1989 study of policy paradigms. Both authors worked in a synoptic fashion, utilizing the insights of other scholars into aspects of politico-administrative behaviour - in Lindblom’s case Herbert Simon’s (1957) insights into organizational behaviour and in Hall’s case Thomas Kuhn’s (1962) ideas about the history of scientific advance - to propose and refine the notion that general patterns of policy development could not only be identified but predicted.

Hall’s work served to break a long-term orthodoxy in studies of policy change dominated by incrementalism, one which argued that a single type of policy dynamics – marginal increments from the status quo – characterized almost all instances of public policy change (Hayes 1992; Howlett and Ramesh 2003). Since Hall’s identification of a second pattern of change, scholars studying public policy dynamics have been involved in a 20 year process of attempting to reconcile the two patterns and their inter-relationships.
This period has now witnessed the emergence of a new ‘post-incremental’ orthodoxy as policy scholars have generally accepted the idea first put forward by Baumgartner and Jones in 1991 that periods of marginal adaptation and revolutionary transformation are typically linked in a ‘punctuated equilibrium’ pattern of policy change.

Research undertaken during this period has involved scholars in three related projects designed to understand better how incremental and paradigmatic patterns of policy change are related to each other. First, they have been interested in understanding exactly how longstanding policies which have tended to develop incrementally can become “punctuated” and shift toward a new “equilibrium” (Baumgartner and Jones 1991, 1993, 2002), after which policy, though of a different type or level, settles back into a familiar incremental patterns.

Second, they have been involved in investigating the manner in which enduring institutions create the “musts, mays, and must nots” of policy development (Clemens and Cook 1999; Steinmo, Thelen et al 1992). Thirdly, and relatedly, they have focused on understanding how changes in subsystem coalitions (Sabatier 1988; Hall 1993), serve to, respectively, constrain and facilitate overall patterns of policy development.

The results of such efforts have been fruitful. The discipline now has a much stronger understanding about factors such as legislative “attention spans”, “policy windows”, and alterations in subsystem beliefs and membership that can result in certain issues coming to the fore on policy agendas, precipitating change by shaping what subsystem members deem to be appropriate types and modes of policy-making (Baumgartner and Jones 1993, 2002; Hall 1989; Kingdon 1995; Leach and Sabatier 2005). It also has a much better understanding of the role played by macro, meso and micro-institutions, formalization of issue discourses and routinization of political and administrative affairs in shaping the mobilization of actors and restraining change in policy agendas and processes (Weaver and Rockman 1993; Deeg 2005; Thelen 2003 and 2004). The self-reinforcing, “path-dependent” effects of enduring policies on their institutionalization, and the impediments to change this process can entail, have also
been well documented (Hacker 2004; Mahoney 2000; Pierson 1993, 2000; Kay 2006; Howlett and Rayner 2006).

While alluring as a synthetic construction with the potential for great explanatory power in many empirical instances, most elements of the new orthodox punctuated equilibrium model have not been fully tested or proven (John and Margetts 2003). In addition, some recent longitudinal studies have not found evidence of the exogenously-driven change processes typically associated with it (Cashore and Howlett 2007; Coleman, Skogstad and Atkinson 1996). This suggests either that some elements of the model have been misstated and/or more than one overall model or process of policy dynamics exists and is at work in different policy-making circumstances (a possibility suggested by Mortensen, 2005).

1.1. Elements of the Current Orthodox Position on Policy Change

In re-examining the present orthodoxy it is important to note the four important methodological, epistemological, and causal elements of this model which have emerged from research over the last two decades. These are:

- First, there is widespread acceptance that any analysis of policy development must be historical in nature and cover periods of years or even decades or more (Sabatier 1993).²

- Second, it has generally been agreed that political institutions and their embedded policy subsystems act as the primary mechanisms of policy reproduction (Botcheva and Martin 2001; Clemens and Cook 1999).

- Third, “paradigmatic” change, a process in which there is a fundamental realignment of most aspects of policy development, is generally understood to occur only when the policy institutions themselves are transformed. In the absence of such processes any policy changes are hypothesized to follow “incremental” patterns (Deeg 2001; Genschel 1997).

- Fourth, many scholars studying policy dynamics agree that paradigmatic transformations or ‘punctuations’ usually occur due to the effects of “external perturbations” that cause widespread disruptions in existing policy ideas, beliefs, actors, institutions and practices (Smith 2000; Thelen 2003 and 2004; Sabatier and Jenkins-Smith 1993).
Taken together, these elements provide the basis for the current ‘orthodox’ view of policy dynamics: that is, (1) an expectation of a typical set of stability processes (path dependent institutionalization) in ongoing policy deliberations; (2) the expectation of a typical pattern of policy change (‘punctuated equilibrium”) resulting from the break-down of a ‘policy monopoly’; and (3) a typical explanation for why this occurs (alteration in subsystem beliefs and membership usually owing to some type of societal ‘perturbation’).

Some of the four basic elements of the orthodoxy set out above, including the first and second, are not generally seen as problematic in themselves although they raise several methodological concerns for scholars interested in policy dynamics; namely whether or not a lengthy period of time must elapse before the direction of policy change can be discerned, and determining the exact mechanisms through which institutions affect policy outcomes (and vice versa). However, the third and fourth postulates, drawn from quite selective case and comparative studies - primarily into budgetary and economic policymaking – have difficulty explaining a range of other sectors and cases and deserve careful scrutiny and re-examination.

1.2. Hall’s Formulation: The Basis of the Current Orthodoxy and Its Problems

Peter Hall’s (1993) effort in this area is undoubtedly the clearest single statement of the current orthodox position on policy dynamics and is the model and classification of policy change most often cited in the literature and used in empirical studies. Hall’s work was critical to the development of the current orthodox view of policy dynamics because it appropriately challenged existing scholarship that tended to conflate all the elements of a “policy” into a single dependent variable (Heclo 1976, Rose 1976). Drawing on divergent cases of economic policy development in Great Britain and France, Hall argued that distinguishing between the means and ends of policymaking and between abstract and concrete aspects of policy outputs was necessary to gain new insights into processes of policy stability and development.
Such an approach, for Hall, revealed three principal elements or components of a policy which, he argued, could change at different rates and with different consequences for overall policy dynamics. “First order” changes occurred when the calibrations of policy instruments, such as increasing the safety or emissions requirements automobile manufacturers must follow changed within existing institutional and instrument confines. “Second order” changes involved alterations to dominant types of policy instruments utilized within an existing policy regime, such as switching from an administered emission standard to an emissions tax. “Third order” changes involved shifts in overall policy goals as, in the pollution example, occurred in many countries in the 1990s with a shift from a focus upon ex post end-of-pipe regulation to ex ante preventative production process design. More significantly, Hall linked each change process to a different specific cause agent and to a specific overall pattern of ‘punctuated equilibrium’ policy dynamics. In his view first- and second-order changes were usually the result of activities endogenous to a policy subsystem while third-order changes were linked to exogenous events, especially societal-based policy learning, that altered existing institutional arrangements and subsystem goals. First- and second-order changes remained “incremental” with only third-order changes linked to larger, more significant, overall “paradigmatic” policy change processes.

Recent analyses of long-term policy change in areas such as agricultural and natural resource policy-making, however, challenge these linkages and the last two arguments in the now prevailing orthodoxy on the nature of policy dynamics set out in the previous section. In these cases, dramatic policy change took place in the absence of institutional change and involved a more complex pattern of linkages and change among the levels or orders of policy identified by Hall. Paradigmatic change was found to have occurred over a 30 year period in US Pacific Northwest forest policy making, for example, through an exogenously driven process in which existing institutions prompted paradigmatic changes in logging practices, ‘thermostatically’, in order to protect endangered species (Cashore and Howlett 2006; Cashore and Howlett 2007). Similarly, studies of agricultural policy changes in the EU, Canada and Australia over a two decade period revealed a pattern in which cumulative incremental changes in policy settings and instruments led, gradually, to paradigmatic change (Skogstad 1998; Coleman, Skogstad and Atkinson
1996). Both types of seemingly anomalous findings prompt the need for a reassessment of the foundations of the now prevailing orthodox view of policy dynamics.

2. Problems with the Existing Orthodoxy: Dependent Variable Problems and Their Impact on Theorizing Policy Dynamics

A close reading of the existing literature on policy change reveals several problems with the fundamental assumptions upon which the prevailing orthodoxy was built. These problems have resulted in several erroneous conclusions being drawn by Hall and others about the factors underlying policy dynamics. Remediying these problems helps to resolve the apparently anomalous aspects of the policy cases cited above. Doing so, however, requires the reformulation of two of the basic building blocks upon which the current orthodoxy was constructed.

2.1. The Dependent Variable Problem: The Need to Precisely Disaggregate Different Elements of Policy in Order to Construct Accurate Models of Policy Dynamics

The first problem which must rectified with the current orthodoxy concerns the widely accepted model of policy composition used to describe historical patterns of policy development. This is the ‘dependent variable problem’ uncovered by research into social and welfare policy change (Green-Pedersen 2004; Kuhner 2007; Knill 2001). As Green (2004) put it in his work on social welfare policy change:

It is clear that the dependent variable problem is crucial for the entire debate, and that disagreement about the dependent variable is a major obstacle for cumulative knowledge about welfare state retrenchment… To put it bluntly, the debate about explanations of variations in retrenchment cannot move beyond the stage of hypotheses before the dependent variable problem has been addressed, and the same goes for the debate about welfare state persistence or change. Addressing the dependent variable problem should have high priority within the retrenchment literature (p. 4).

Similarly, Paul Pierson (2001) has argued that “it is difficult to exaggerate” the obstacle the dissensus over the definition, operationalization and measurement of policy change creates for comparative research and theory construction into policy dynamics.
To date, the operationalization and measurement of the dependent variable in studies of policy dynamics - “policy change” – based mainly on Hall’s ‘three order’ model, has led many scholars to inadvertently conflate distinct change processes present in specific elements of policy. Uncovering these “hidden” and more complex patterns of policy development challenges the way most policy scholars measure and classify overall policy dynamics as either “paradigmatic” or “incremental” (Howlett and Ramesh 2002; Lindner 2002; Lindner and Rittberger 2003).

2.1.1. An Improved Model of Policy Composition

Halls’ work was path breaking in its linking of different overall policy development processes to changes in the order or level of policy in flux. Still, this initial conceptual effort at classification requires re-calibration in the light of his own logic, as well as in light of the empirical evidence gathered in many cases of policy change analyzed since his work was first published.

That is, according to Hall’s own emphasis on distinguishing abstract goals from specific content, and instruments (means) from actual policy requirements (ends), it is possible to discern six, rather than three, “levels” or “orders” of policy that can undergo change. As Figure 1 details, according to Hall’s own logic there exist three conceptual elements of policy content: abstract “goals,” “objectives” that operationalize the goals in general terms, and “settings” or “calibrations” that specify precisely what is required in order to operationalize objectives in specific real-world situation But each of these, as Hall also noted, can be further distinguished between their use to describe policy “ends” and “means.”

The implication of this taxonomy is that every “policy” is in fact a more complex regime of ends and means-related goals, objectives, and settings than is suggested by the use of Hall’s original decomposition and definition of the elements of policy. Paying attention to these regime differences, and how each element changes or remains stable over long periods of time, results in a much more complex picture of policy dynamics than usually found in the existing literature on the subject ) derived from the orthodox model (Liefferink 2006.4

4
Reconceptualizing the number and type of policy elements found in Hall’s work has serious consequences for his (and the current orthodoxy’s) linking of policy elements to specific drivers of policy change and for the consideration of the number and type of possible overall patterns of policy regime change. In particular, two implications result. First, the links between policy components and endogenous and exogenous sources of policy change are more complex than Hall suggested (Bannink and Hoogenboom 2007). Second, existing classifications of “paradigmatic” and “incremental” policy development must be revisited so that we can better capture the complex interplay of change processes among the six different policy components. That is, in addition to distinguishing six different levels of policy, which can be used to generate more nuanced descriptions historical patterns of policy development, it is equally necessary that the proper classification tools be available to assess the degree and overall type of policy change found in any such description (Kuhner 2007).
2.2. The Re-Aggregation Problem: Distinguishing Possible Patterns of Policy Development Based on More Accurate Models of Policy De-Composition

The effort to better distinguish possible patterns of policy development sensitive to a model with six regime elements rather than three requires revisiting widely accepted assumptions within policy studies that originated in Simon’s (1957) and Lindblom’s (1959) path-breaking works on the subject of satisfying and incremental policy-change. The general idea that emerged from these articles, which have influenced generations of scholars, including Hall, is that incremental change is associated with marginal changes in policy means and is treated as being synonymous with a pattern of relatively long-lasting policy stability (Bendor 1995; Hayes 1992). Paradigmatic change, on the other hand, has been treated as an abnormal, atypical, relatively unstable, and usually short-lived process associated with changes in policy ends (Sabatier 1988; Baumgartner and Jones 1991 and 2002; Lustick 1980). The development of “punctuated equilibrium” models underlined the importance of understanding not just incremental or paradigmatic policy processes, per se, but also the manner in which these two types of change are linked together and the propensity different sectors, issue areas, or policy subsystems have to undergo these processes at different points in time (Baumgartner and Jones 2002).

Applying such an appreciation of policy dynamics, however, requires both a clear definition of what constitutes ‘incremental change’ so that it can be distinguished from ‘paradigmatic’, and a clear taxonomy of the different types of change processes which can occur within a policy area, so that the dominant mode present at a particular point in time, and the various possibilities for change, can be discerned. But, as has been pointed out for some time, neither exists and both incremental and paradigmatic change remain very ill-defined and under-specified entities (Berry 1990; Bailey and O’Connor 1975; Kuhn 1974; Capano 2003).

In trying to draw a clear distinction between these two types of change, most existing taxonomies have followed the original thinking behind the punctuated equilibrium conception in paleobiology (Gould and Eldredge 1977) and conceived of policy change as comprised of only two elements—mode (incremental versus paradigmatic) and speed or tempo of change (rapid versus slow) (Durrant and Diehl
1989; Hayes 1992); generating two distinct variations on the two basic processes of policy dynamics. This is what, in fact, Hall envisioned in linking patterns of change in policy components to overall policy change processes (see Figure 2 below).

**FIGURE 2: A Basic Taxonomy of Policy Change by Mode and Speed**
*(cells contain typical ‘modes’ of change)*

<table>
<thead>
<tr>
<th>Mode of Change</th>
<th>Tempo or Speed of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fast</td>
</tr>
<tr>
<td>Paradigmatic</td>
<td>Classic Paradigmatic</td>
</tr>
<tr>
<td>Incremental</td>
<td>Rapid Incremental</td>
</tr>
</tbody>
</table>

Source: Adapted from Durrant and Diehl 1989

Such formulations are useful but this specific method of classifying types of change is problematic in including the same concept (mode of change) as both a dependent and an independent variable. Reconstructing this taxonomy, however, helps to generate a more logical and robust classification of policy change types useful in improving upon the current orthodox model of policy dynamics.

In this regard, it is important to note that what is significant about policy change in the Baumgartner and Jones’ formulation -in addition to linking incremental and paradigmatic modes of change together in a punctuated equilibrium pattern - is the emphasis they place on the *directionality* of changes as opposed to simply a concern for speed or rapidity. This is thought of not in terms of the “size” of moves away from the status quo, but whether these changes are *cumulative*, i.e., leading away from an existing equilibrium toward another, or whether they represent a fluctuation consistent with an existing policy equilibrium (on directionality see Nisbet 1972), Reconceptualizing modes of policy change as the resultant of the interplay of tempo and cumulative directionality provides a superior model of policy dynamics to that found in earlier work focusing on mode and tempo, since it clarifies the nature of each
mode and reveals the overlaps that can exist between incremental and paradigmatic modes in certain junctures (see Figure 3 below).

**FIGURE 3: A Basic Taxonomy of Policy Change by Speed and Directionality**

(cells contain typical ‘modes’ of change)

<table>
<thead>
<tr>
<th>Directionality</th>
<th>Tempo or Speed of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative</td>
<td>Fast: Classic Paradigmatic</td>
</tr>
<tr>
<td></td>
<td>In Equilibrium: Faux Paradigmatic or “Random Walks”</td>
</tr>
</tbody>
</table>

Source: Cashore and Howlett, 2007.

Figure 3 identifies two commonly ignored, misclassified, or incorrectly juxtaposed overall change processes that exist along side the familiar paradigmatic and incremental types. One such typical mode, in which rapid change occurs but is noncumulative, has often been misdiagnosed as paradigmatic. This is a pattern in which significant departures from the status quo occur but then shift back just as quickly to more or less their regular position. These “faux paradigmatic” or “oscillating equilibrium” type of changes are quite common in political life, as swift changes in policy can occur in many policy arenas with developments such as, for example, the arrival of a new political party in government. In such cases pundits and the public often come to believe that permanent and significant changes have occurred, only to see the new policies reversed, or sent back to their original position, upon the election of another political party four or five years later. Such rapid changes in policy that end up coming back to their original position – a kind of ‘random walk’ - must be treated quite differently from other kinds of rapid changes that are actually heading toward a new equilibrium (the “classic” paradigmatic type of change). Figure 3 also distinguishes two different processes that have previously both been incorrectly labeled as incremental - slow changes going in one direction and leading over time to a big change (cumulative,
heading towards a new equilibrium) which have sometimes also been labelled as ‘gradual paradigmatic’, and slow steps that can go in many directions but never vary far from the status quo, the ‘marginal adjustments’ of "classic incrementalism".

3. Transcending the Current Orthodoxy: Thermostatic, Neo- and Quasi-Homeostatic versus Homeostatic Models of Policy Change

Advancing the study of policy dynamics through these reconceptualizations requires the development of cases of long-term policy change that will empirically match the four overall modes of policy changes set out in Figure 3 with the six components of a policy set out in Figure 1. This will allow the empirical assessment of whether it is actually the case, as Hall suggested, that a change in goals is always associated with paradigmatic change while changes in settings are indicative of incremental changes, and if paradigmatic changes are always spurred by exogenous perturbations, or if more complex patterns of policy change and development are at work (Mortensen 2005).

Until such studies are completed any conclusions about common and likely patterns of change and the processes which drive them are premature. However, one way to think about the possible combinations of policy elements that can exist in an overall process of change is in terms of whether the resulting change processes are ‘homeostatic’ or ‘non-homeostatic’ in nature (Steinbruner 1974).

The overall model of change contained in the new punctuated equilibrium orthodoxy is what cybernetic theorists referred to as a ‘homeostatic’ one; that is, part of a general class of systems in which positive and negative feedback mechanisms allow a new equilibrium to be reached after stable system parameters have been altered by outside forces (Steinbruner, 1974). That is, referring to Figures 1 and 3, the policy regimes changes that Hall examined in his path-breaking work featured fluctuating social and political goals as a result of changes in exogenously driven changes in societal values which then led to changes in both end- and means-related policy objectives and settings. This describes a roughly "homeostatic" change process since it involves a system which, like a spinning top, is constantly undergoing some kinds of (incremental) changes, but remains in one place (equilibrium) until an outside
force (a foot, for example, in the case of the spinning top analogy) moves it to a new location where, after this “punctuation,” a new equilibrium is established (Steinbruner 1974; Mertha and Lowry 2006). Without exogenous shocks, in Hall’s model, it would be expected that existing policy elements would tend to arrange themselves in a self-perpetuating or equilibrating order, allowing (unspecified) changes in settings and instruments to occur but without altering policy goals, resulting in only incremental change.

A homeostatic model, however, is only one possible overall model or pattern of policy change, meaning that a punctuated equilibrium pattern may not be a general model, per se, but occur only under certain specific conditions (Mortensen 2005). Other arrangements of system elements and change drivers exist and should not be ruled out a priori as appropriate templates for overall policy dynamics found in specific sectors or issue areas.

One obvious such alternative would be a Hall-type regime, but where changes in goals are driven endogenously in a process of gradual paradigmatic change. Empirical evidence for this “neo-homeostatic” model can be found in Coleman et al.’s 1996 work on agricultural policy change and in Capano’s 2003 study of Italian administrative reform.

However this variant on the homeostatic model does not in anyway exhaust the number of possible overall patterns of change. Others would include a “quasi-homeostatic” pattern in which goals are stable but where exogenously driven changes in end- or means-related objectives can cause paradigmatic shifts to occur. This has appeared to occur, for example, in welfare reform driven by international organizations or influenced by “lesson-drawing” (Lee and Strang 2006; Rose 1991; Howlett and Ramesh 2006). Or a ‘thermostatic’ model (Buckley 1968; Gell-Mann 1992) in which goals are set broadly enough to allow paradigmatic change to be driven endogenously by major alterations in end-related objectives and settings (Wlezien 1995; Cashore and Howlett 2007).5 In the latter case durable and flexible policy goals can create an institutionalized, “logic of appropriateness” (March and Olson 2004) in which policy settings are likely to follow a classic incremental pattern of development until such time a built-in thermostatic mechanism is “tripped,” resulting in classic paradigmatic change through changes in
policy settings and objectives. The nature of these overall patterns and their relationship to the exogenous or endogenous origins of, and the key policy element assumed to lead, change, is set out in Figure 4.

**FIGURE 4: Basic System Possibilities and Change Drivers**  
(cells contain general system type and policy change pattern)

<table>
<thead>
<tr>
<th>Cause of Change</th>
<th>End-Related Goals</th>
<th>End- or Means-Related Objectives or Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exogenous</td>
<td>Classic Homeostatic “Punctuated Equilibrium”</td>
<td>Quasi-Homeostatic “Lesson-Drawing”</td>
</tr>
<tr>
<td>Endogenous</td>
<td>Neo-Homeostatic “Gradual Paradigmatic”</td>
<td>Thermostatic “Planned Paradigmatic”</td>
</tr>
</tbody>
</table>

### 4. Conclusion

Three findings and recommendations emerge from this analysis for current and future studies of policy change. The first is that scholars must be aware of the ‘dependent variable’ problem in studies of policy dynamics and be careful to distinguish between the levels, orders, or components of policies they are measuring and describing (Mortensen 1995; Robinson and Caver 2006; Robinson, Caver, Meier, O’Toole 2007). Failing to distinguish between different policy elements can improperly juxtapose several distinct types of policy development and present a misleading picture of the actual pattern of change present in an empirical case.

Second, and relatedly, assessments of policy dynamics must take the “direction” of change into account. That is, rather than focus on the ‘mode’ of change in assessing possible change types, they should distinguish policy developments that moves slightly in different directions over time but never deviates much from the status quo (policies in equilibrium), from those that move in the same direction over time (cumulative change) (Deeg 2001; Goldstone 1998; Pierson 2000).

Third, broad-based theories of institutional and policy change need to be careful in attributing exogenous or endogenous sources of policy development. Path-breaking work by Hall on homeostatic models linking exogenous change in goals to changes in end and means-related objectives and settings
may need to be modified to take into account both the possible endogeneity of change processes and the different institutional structures can permit change to occur in other ways: for example, through neo- or quasi-homeostatic means or in a thermostatic fashion (Braun and Benninghoff 2003; Daugbjerg 1997 and 2003).

In summary, the reconceptualization of the ‘dependent variable’ in studies of policy dynamics undertaken above, and the subsequent identification of six levels of policy, and four patterns of historical policy development, has helped to uncover at least three additional overall patterns of policy development often elided by the current punctuated equilibrium orthodoxy on policy change. While more research is required in order to determine if other patterns exist, and the reasons why some changes are cumulative and others are not, this is an essential re-conceptualization if studies of policy dynamics are going to continue to progress.

Endnotes

1 Again drawing on research from another field (in this case paleo-biology. See Eldredge and Gould 1972).
2 This observation is explicitly raised in every project by Baumgartner and Jones on punctuated equilibrium and in Paul Sabatier and Hank Jenkins-Smith’s work on “advocacy coalitions,” as well as being implicit in the broad field of historical institutionalism (Sabatier 1988 and 1993; Sabatier and Jenkins Smith, Mahoney 2000; Lindner and Rittberger 2003).
3 Baumgartner and Jones many works on the subject provided the empirical backing required to support the idea that incremental policy making was in fact routinely punctuated by dramatic change, but did not in itself provide a careful taxonomy of policy elements which could be linked together with changes in underlying institutions and subsystems in a way which could be applied to instances of policy dynamics beyond those in the budgetary sphere they identified (Baumgartner and Jones 1993 and 2002; Mortensen 2005; John 2003).
4 For similar models based on a similar critique of Hall, see Daugbjerg (1997) and Smith (2000). These six categories are inspired from much of the work on applied policy analysis that teach students to break policy down into their “goals,” “operationalized” objectives, and specific criteria and who likewise take pains to distinguish policy instruments from “on-the-ground” policy requirements (Weimer and Vining 1999). Such a distinction is also consistent with the work of Howlett (2000) who has hypothesized and empirically demonstrated the important and independent causal impacts of process (means) based policy instruments. Similarly, Sabatier’s ACF distinguishes different causal influences on different measures of policy, theorizing that “core values” or ideas behind policy can rarely change in the absence of societal transformation, but that “secondary belief systems” can lead to changes in what we are defining as “means-oriented” policy objectives and policy settings, as advocacy coalitions undergo “learning” about causal mechanisms within the policy process (Sabatier 1988).
5 In the Pacific Northwest forest policy case, formalized policy objectives were very durable and survived changing or fluctuating policy goals. This type of change process involves a system in which policy objectives obtain “institutional status” and prevent or control the amount of change possible in policy settings. Whether such institutionalized objectives will prevent or require changes in policy settings depends on their internal logics. (Cashore and Howlett 2006 and 2007).
6 Clemens and Cook’s (1999) work shows that “institutions” can be seen as involving formal and informal rules, policies and standard operating procedures that bind and guide behavior. The “binding” aspect is important because not all institutions, even those emanating from constitutional sources, are enduring. They can be, rather “soft” institutions (Abbott and Snidal 2000; Giuliani 1999; Pollock, Lilie and Vittes 1993) that quickly adapt to outside pressure and allow significant changes to occur in policy outcomes.
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