

Policy Entrepreneurship and Policy Change: A Critique of Punctuated Equilibrium Theory¹

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Abstract

What is the role of policy entrepreneurship in punctuated equilibrium theory (PET) for policy studies? In their powerful development of PET for policy studies, Baumgartner and Jones seem to place policy entrepreneurship front and center. Building on William Riker's and John Kingdon's earlier groundbreaking work on the idea of policy entrepreneurship, Baumgartner and Jones depict policy entrepreneurs in *Agendas and Instability in American Politics* (p. 42) as the manipulators of policy images and venues so as "to alter other people's understandings of the issues in which they deal" (p. 42). Similarly, in their subsequent edited volume *Policy Dynamics* (2002a), Baumgartner and Jones more closely specify policy entrepreneurship as "the willingness of a political actor to invest resources in a given lobbying struggle is likely to be related to two things: The probability of success (which is related to expected behaviors of other actors involved), and the expected benefits" (MacLeod, 2002, p. 22). Yet, a careful reading of Baumgartner and Jones' theoretical work on PET reveals that policy entrepreneurship seems at most incidental in Baumgartner and Jones' PET. This paper will develop this argument as a critique of Baumgartner and Jones' PET for policy studies by exploring the role of policy entrepreneurship and its relationship to policy change in their model. Crucial insights will also be gleaned by assessing PET's development in other fields, most notably in the paleobiology of Stephen J. Gould and Niles Eldredge (Eldredge & Gould, 1972; Stephen Jay Gould, 1992, 2002) from which the idea of PET originates.

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By almost any measure, Frank Baumgartner and Bryan Jones are among the most important and prolific scholars in policy studies today. “It characterizes as preferable the theory which tells us more;” Karl Popper (1985) writes, “that is to say, the theory which contains the greater amount of empirical information or content, which is logically stronger; which has the greater explanatory and predictive power; and which can therefore be more severely tested by comparing predicted facts with observations” (p. 173). Starting with their article “Agenda Dynamics and Policy Subsystems” in *The Journal of Politics* and book *Agendas and Instability in American Politics* in the early 1990s, Baumgartner and Jones developed and continue to refine punctuated equilibrium theory for policy studies (PET-PS) that, in Popper terms, tells us more than probably any other available theoretical system in political science. In its essence, PET-PS tells us that the historical trajectories of most policy areas since at least World War II seldom reflect a steady, gradual change but rather a punctuational pattern of “long periods of stability punctuated by dramatic periods of change” (Baumgartner & Jones, 1991, p. 1046). This single insight supporting Baumgartner and Jones’ PET-PS has revolutionized the way the rest of us see policy change and agenda setting in American politics and beyond. This is why James Stimson writes without exaggeration on the back cover of Jones and Baumgartner’s *The Politics of Attention*, “Jones and Baumgartner have become a genre, the leading scholars of a science of policy-making.”

The genius of Baumgartner and Jones lies in their adaptation of punctuated equilibrium to policy studies and, more generally, to political science, for they did not themselves invent its conceptual framework. That distinction, rather, belongs to the paleobiologists Stephen J. Gould and Niles Eldredge (e.g., Eldredge & Gould, 1972; Stephen Jay Gould, 1992, 2002) who developed the conceptual framework of punctuated equilibrium to supersede the assumption of gradual evolution of species that had dominated the scientific understanding of biological evolution since the time of

Darwin. In their words, punctuated equilibrium is a “novel interpretation for the oldest and most robust of paleontological observations: the geologically instantaneous origination and subsequent stability (often for millions of years) of paleontological ‘morphospecies’” (Stephen Jay Gould & Eldredge, 1993, p. 223). Darwin’s focus on gradual change at the level of the organism, Gould and Eldredge argue, had ignored this observation and for decades evolutionary biologists have blamed the glaring inconsistencies on the fossil record on its incompleteness. Back in 1972, Gould and Eldredge argued that punctuated equilibrium better matches the macroevolutionary data, and continued this argument until Gould’s passing in 2002. Then, in the early 1990s, Baumgartner and Jones perspicaciously realized² that the dominant theories of policy change as incremental and gradual did not fit the historical data very well (see Robinson, Caver, Meier, & O’Toole Jr., 2007), much as Eldredge and Gould realized the same for the fossil record in the early 1970s. Much like evolutionary change of species, Baumgartner and Jones found that while the historical trajectory—or, as it were the evolution—of policies seemed to change slowly and incrementally, if at all, for long periods of time, they typically were punctuated by rapid and dramatic change in relatively brief periods. Hence, punctuated equilibrium for policy studies was born.

In this paper, I probe deeper into the theoretical edifice of Baumgartner and Jones’ PET-PS as developed in their paradigm-shifting research on policy change, namely “Agenda Dynamics and Policy Subsystems” (1991), *Agendas and Instability in American Politics* (1993), *Policy Dynamics* (2002a), and *The Politics of Attention* (2005). Relying on a close reading of Gould and Eldredge’s work on punctuated equilibrium, I first discern the purpose and limitations of Gould and Eldredge’s punctuated equilibrium for macroevolutionary research and then, by homology, understand purpose and limitations of Baumgartner and Jones’ PET-PS for policy studies. Is punctuated

² To be fair, other scholars in the social sciences had also discovered the applicability of punctuated equilibrium theory to their research around the same time as Baumgartner and Jones (e.g., Burnham, 1991; Kelly, 1994; Schubert, 1992; Tushman, Newman, & Romanelli, 1986). The genius of Baumgartner and Jones might therefore be that they were the first to notice just how potent the PET framework is.

equilibrium/PET-PS fundamentally an “explanatory” theory of evolutionary/policy change, by which I mean a theory providing causal relationships driving the change of interest? Or is punctuated equilibrium/PET-PS fundamentally an “analytic” theory of evolutionary/policy change, by which I mean a theory that accounts for the nature of the change of interest and describes how it factually occurs or has occurred? Based entirely on identifying Gould and Eldredge’s punctuated equilibrium as an analytic theory, I correspondingly find that PET-PS is fundamentally an *analytic* theory of policy change. This finding resonates with Prindle’s position that “punctuated equilibrium was thus in some sense a mechanical model, foreign to any sort of agency” (Prindle, 2012, p. 37).

Prindle (2012) also holds that “although Jones and Baumgartner have explicitly grounded their version of the theory in the human struggle, they have never frontally addressed the issue of how such a model can translate human choices into mechanical outcomes without losing the symbolic and emotional processing that it its substance” (p. 37). The rest of the paper addresses that limitation as I next examine the role of policy entrepreneurship in PET-PS for policy studies. Baumgartner and Jones give a prominent role to policy entrepreneurship. Building on William Riker’s and John Kingdon’s earlier groundbreaking work on the idea of policy entrepreneurship, Baumgartner and Jones depict policy entrepreneurs in *Agendas and Instability in American Politics* (p. 42) as the manipulators of policy images and venues so as “to alter other people’s understandings of the issues in which they deal” (p. 42) and subsequently in *Policy Dynamics* (2002a) as “the willingness of a political actor to invest resources in a given lobbying struggle is likely to be related to two things: The probability of success (which is related to expected behaviors of other actors involved), and the expected benefits” (MacLeod, 2002, p. 22). Yet, a careful reading of Baumgartner and Jones’ theoretical work on PET-PS reveals that policy entrepreneurship is not essential to PET-PS, one of many factors that relate to punctuated-equilibrium patterns in the historical trajectory of policy areas and one that has limited causality in PET-PS. Yet, I argue, it need not be so. If we reconceptualize

policy entrepreneurship in terms of Joseph Schumpeter's and Israel Kirzner's classical theories of entrepreneurship in economics by carrying over to policy entrepreneurship the *causal function* of entrepreneurship in the classical theories, then I argue that policy entrepreneurship becomes not only the key causal agent in PET-PS but also its perfect complement.

Explanatory and Analytic Theories

I must first insist that in this paper I do not assess the value of explanatory or analytic theories relative to each other, nor do I imply any sort of evaluation. Rather, I maintain that both types of theories are equally indispensable both to each other in the study of any given subject and, more generally, to scientific inquiry. Moreover, analytic theories of course can have causal implications, even though they emphasize the nature of change over causality, and conversely explanatory theories can have analytic implications. The explanatory-analytic distinction is meant only to identify the primary function of each type of theory in scientific discourse.

For the purposes of this paper, I define an *explanatory* theory as one providing causal relationships. According to Little (1991b), an explanatory theory consists of two parts, an *explanandum* or "event or pattern to be explained" and an *explanans* or "circumstances believed to explain the event" (p. 3). Explanatory understanding is "imagining a plausible mechanism through which the empirical fact to be explained is brought about, produced, caused" (Parijs, 1981, p. 14). Scriven (1975) states the form of a causal claim as follows: "Suppose that whenever and however we produce C, and that E never occurs unless C is produced..., then C is the cause of C" (p. 44). (See also Mackie, 1975.) With the causal claim that defines an explanatory theory,

...the social scientist or historian seeks to identify some of the conditions that produced the explanandum or that conferred upon it some of its distinctive features. The goal is to discover the conditions existing prior to the event that, given the law-governed regularities among phenomena of this sort, were sufficient to produce this event. (Little, 1991a, p. 15).

Analytic theories, then, are those theories that do not assert causal relationships, though they may secondarily have causal implications. With an analytic theory, "...the investigator is primarily concerned with determining an answer to a factual question, one which can only be answered on the basis of extensive analysis and factual inquiry" (Little, 1991b, p. 9).

Gould and Eldredge's Original Punctuated Equilibrium Theory

In a single sentence, Gould and Eldredge's punctuated equilibrium "addresses the origin and deployment of species in geological time" (Stephen J. Gould, 2007, p. 39).³ Punctuated equilibrium accounts for "what every biologist knows" about the fossil record but until Gould and Eldredge's theory could not adequately comprehend: "the great majority of species appear with geological abruptness in the fossil record and then persist in stasis until their extinction" (Stephen J. Gould, 2007, p. 19). Three components thus comprise Gould and Eldredge's punctuated equilibrium (Stephen J. Gould, 2007):

- *Stasis*, which is "not 'rock stability or utter invariance' (p. 40) but rather "effectively, no change accumulates at all" (p. 41);
- *Punctuation*, which must...be defined relative to the subsequent duration of the derived species in stasis" (p. 42); and
- *Relative frequency*: "As the most important ground rule, the theory of punctuated equilibrium makes a claim about dominating pattern, or relative frequency, not just an assertion for the existence of a phenomenon" (p. 48).

Punctuated equilibrium thus describes a "distinctive style of change" dominating the fossil record in which there is a "concentration in discrete periods of extremely short duration relative to prolonged stasis as the normal and actively maintained state of systems" (Stephen J. Gould, 2007, p. 229).

There is a distinct descriptive emphasis in Gould and Eldredge's punctuated equilibrium that is the defining functional characteristic of analytic theories. Since its inception, punctuated

³ A note on terminology: Gould (2007) prefers "punctuated equilibrium" for use in the field macroevolutionary theory at the level of speciation and "punctional change" or "functionalism" for all other macroevolutionary levels as well as for generality.

equilibrium has generated controversy, as all truly good theories advancing our knowledge of any discipline necessarily must. The written record of Gould and Eldredge's responses provide copious evidence of their intentions for punctuated equilibrium. For example, in 1982, a decade after they introduced the theory, Gould declared, "Punctuated equilibrium is not a theory of macromutation...it is not a theory of any genetic process...It is a theory about larger-scale patterns—the geometry of speciation in geological time" (quoted in Stephen J. Gould, 2007, p. 338). Similar expressions appear again and again in Gould's final and the most comprehensive statement on the theory in *Punctuated Equilibrium* (2007). Punctuated equilibrium is...

- "...a fair description of an evolutionary reality..." (p. 3).
- "...a claim about dominating pattern..." (p. 48).
- "...a macroevolutionary pattern in geological time" (p. 48).
- "...a particular theory about a definite level of organization at a specified scale of time: the origin and deployment of species in geological perspective" (p. 90).
- "...a major cause of evolutionary pattern" (p. 131).
- "...a primary generator of pattern in the history of life" (p. 148).
- "...a distinctive style of change" (p. 229).
- "...a theory about the characteristic rate of...branching [as the primary mode of evolution]" (p. 308).

This repeated descriptive emphasis indicates that Gould and Eldredge intended that punctuated equilibrium be an analytic theory.

As Gould and Eldredge intend that punctuated equilibrium be an analytic theory of evolutionary change, they also intend that it *not* be an explanatory one attempting to establish any causal mechanism of evolution. In their book chapter entitled "Punctuated Equilibria: An Alternative to Phyletic Gradualism" (1972) that launched the punctuated equilibrium revolution in academia, Eldredge and Gould reveal the essence of punctuated equilibrium as a theory that more accurately describes how species evolve rather than primarily asserting the causal mechanisms of evolution. "The history of life is more adequately represented by a picture of 'punctuated equilibria' than by the notion of phyletic gradualism. The history of evolution is not one of stately unfolding,

but a story of homeostatic equilibria, disturbed only ‘rarely’ (i.e., rather often in the fullness of time) by rapid and episodic events of speciation” (p. 84). Thus, in Gould and Eldredge’s original formulation, punctuated equilibrium is meant to “more adequately represent” the history of life, *not* to more adequately explain it. As Gould and Eldredge continued to develop punctuated equilibrium in the decades since,⁴ they have more clearly delineated its descriptive nature. For example, according to Gould (1992, p. 57), punctuated equilibrium narrowly operationalized for paleontology consists of three insights:

- (1) A well-defined, testable theory about the origin of species and their geological deployment
- (2) A theory based on the recognition that events judged as glacially slow in ecological time. might appear instantaneous in geological resolution.
- (3) An idea resolvable within the rubric of known mechanisms and causes..., not a proposal about new kinds of genetic changes.

The last insight of “within the rubric of known mechanisms and causes” is particularly instructive. “Punctuated equilibrium makes its major contribution to evolutionary theory, not by revising microevolutionary mechanics,” Gould (2007) writes, “but by individuating species (and thereby establishing the basis for an independent theoretical domain of microevolution” (p. 54).

In fact, Gould (2007) insists that punctuation equilibrium “asserts no novel claim about modes or mechanisms of speciation” (p. 54). Rather, its novelty is providing a better account of the cardinal and salient fact of the fossil record that “every biologist knows” but until the advent of punctuated equilibrium could not adequately comprehend. Thus, Gould and Eldredge’s punctuated equilibrium does not explain evolution; rather, it gives an analytically descriptive account of it. Punctuated equilibrium does not provide explanation of *why* species evolve; rather, it provides a description of *how* they evolve. Therefore, I contend that punctuated equilibrium is an analytic theory.

Baumgartner and Jones’ Punctuated Equilibrium Theory for Policy Studies

⁴ Since their 1972 book chapter, Gould seemed to have taken the theoretical lead in developing PET until his passing in 2002. This is why I place Gould before Eldredge in referencing their work on PET.

Gould and Eldredge recognized the descriptive power of PET-PS. Gould, for example, in *The Structure of Evolutionary Theory* (2002) openly welcomes the adaptation of punctuated equilibrium in other disciplines as the theory seems to be “transcending metaphor and discovering causally meaningful connections among punctuational phenol-types of change across levels and disciplines” (Stephen Jay Gould, 2002, p. 958). Gould, who himself was one of the great scientific popularizers of the last several decades, indulged in a bold opinion on punctuated equilibrium’s generalizability beyond microevolutionary research.

I also think that an explicit application of punctuational models to many aspects of change in human institutions and technologies might improve our grasp and handling of the social and political systems that surround and include us (Stephen Jay Gould, 2002, p. 958).

Indeed, Gould (2007) observes elsewhere,

...this range of success [in applying punctuational models] suggests that the apparent ubiquity of punctuational patterns at substantial, if not dominant, relative frequencies may be telling us something about general properties of change itself, and about the nature of systems built of interacting components that propagate themselves through history” (p. 233).

Other scholars have found punctuated equilibrium appealing. Tushman and Romanelli, for example, articulated a punctuated equilibrium model of organizational evolution: “Organizations progress through convergent periods punctuated by reorientations which demark and set bearings for the next convergent period” (Tushman & Romanelli, 1985, p. 173). As another example, Gersick (1991) conceived of a punctuated equilibrium “paradigm” in the social sciences as in every social scientific discipline there seem to be phenomena that follow the pattern of “relatively long periods of stability (equilibrium), punctuated by compact patterns of qualitative, metamorphic change (revolution).” She continues, “In every model [of the paradigm], the interrelationship of these two modes is explained through the construct of a highly durable underlying order or deep structure” (p. 12). In my opinion as a scholar of policy studies, however, the most important and

influential adaptation of Gould and Eldredge's concept of punctuated equilibrium is Baumgartner and Jones' for policy studies.

Baumgartner and Jones' punctuated equilibrium for policy studies (PET-PS) is a theory of policy change. Just as in Gould and Eldredge's original formulation, PET-PS refers to long periods of stability in a policy domain with only incremental change (i.e., equilibrium) interrupted by short periods of rapid change (i.e., punctuation), a diachronic movement that often takes the form of a logistic, "S"-shaped curve. They hypothesize that, on a structural level, the logistic curve correlates with policy change in that greatest policy change (in terms of both volume of total change and potential magnitude of individual policy changes) occurs in disequilibrium. "Most issue change," Baumgartner and Jones (1993) write, "occurs during periods of heightened general attention" (p. 20). In order to historically analyze the relationship between punctuated equilibria in political environments and change in specific policy domains, Baumgartner and Jones proffer the analysis of five data sets: (1) congressional hearings data; (2) articles in the *Congressional Quarterly Almanac*; (3) Public Law records; (4) an archive of articles in *The New York Times*; and (5) federal budget data from the Office of Management and Budget (Baumgartner, Jones, & Wilkerson, 2002).⁵ Baumgartner and Jones also recognize that these five data sets might not be sufficient for all research projects utilizing PET-PS, in which case, they "suggest three strategies: creating one's own customized set of subtopics; supplementing our data with further analysis; and searching and recording our data based on the textual summaries" (Baumgartner et al., 2002, p. 38). In PET-PS terms, changes in any of these data sets with respect to a specific policy domain potentially indicate punctuated equilibrium in the political environment (i.e., the data reveals a logistic curve) as well as signal a high incidence of policy change during the punctuation. As Gould and Eldredge argue for the relative frequency of a dominating punctuational pattern in evolution, Baumgartner and Jones argue for the relative

⁵ Baumgartner and Jones store these five data sets for a comprehensive list of policy domains on their Policy Agendas Project website (www.policyagendas.org).

frequency of a dominating punctuational pattern in American politics and beyond. And, both sets of punctuated-equilibrium scholars have been vindicated empirically. Therefore, exactly like Gould and Eldredge's punctuated equilibrium, Baumgartner and Jones' PET-PS is an analytic theory that does not provide explanation of *why* species policies change; rather, it provides a description of *how* they change.

PET-PS-based research implies small-N case and comparative analyses. "No one simple causal theory can explain policy change across all areas," Jones and Baumgartner (2005) write. "This difficulty in generalization is one reason that policy studies has relied so heavily on case analysis" (p. 91). Yin (2003) observes that case studies are justifiable when the case is extreme or unique (pp. 39-46). In PET-PS-based research, each "policy domain" (May, Sapotichne, & Workman, 2006) either has a unique history surrounding a punctuated equilibrium pattern in its political environment and unique justifications for any sort of change in policy or its trajectory correlated with allied policy domains. For example, if the number of congressional hearings on federal health policy remains at a constant average rate of two per year over three decades and if the annual appropriation of all health-related programs has increased steadily and incrementally over the same time period, then, according to PET-PS, it can be said that the political environment of federal health policy was in equilibrium over those two decades of policy stability. If suddenly the number of congressional hearings on federal health policy increases dramatically, is erratic for a few years, or the appropriations for health-related programs are drastically cut or generously increased, then, according to PET-PS, federal health policy is undergoing a punctuation of rapid and large policy change. According to PET-PS, once some sort of consistency returns for a few years in a policy domain, a new equilibrium has been established and a fresh period of policy stability has returned.

The unique histories of each policy domain or sets of allied policy domains have their own threshold for determination of equilibria and punctuation and can only be determined by examining

longitudinally its unique policy trajectory. Thus, if it occurs, the logistic curve of equilibria and punctuations in federal health policy will differ from that of local government budget expenditures (Jordan, 2003), science and technology policy (Feeley, 2002), telecommunications policy (MacLeod, 2002). PET-PS accommodates the uniqueness of different policy domains' histories while facilitating their generalizability (Bailey, 1992) by furnishing a common conceptual language with which to monitor the stability of their different political environments. For the purposes of this discussion, the most important element is that all policy histories utilizing PET-PS look for the tell-tale pattern of long periods of stability and at most incremental change punctuated by short periods of dramatic policy change. They are analytically describing *how* a policy domain has evolved, not explaining *why* it has evolved.

An excellent “mini-symposium” on PET-PS and tobacco policy appeared in a 2006 issue of *The Policy Studies Journal* (volume 34, number 3) that illustrates the descriptive nature of PET-PS. At the risk of grossly oversimplifying the mini-symposium, I read the mini-symposium to be centered around the fitness of PET-PS to describe the evolution of tobacco policy since WWII with particular emphasis on the 1990s and the Master Settlement Agreement (MSA) between 46 Attorneys General (representing 46 states) and the tobacco industry signed in 1998. In the first article “Punctuated Equilibrium in Limbo: The Tobacco Lobby and U.S. State Policymaking from 1990 to 2003,” David Givel examines “whether tobacco policymaking trends in all 50 states from 1990 to 2003 correspond to ideas espoused in the punctuated equilibrium theory” (Givel, 2006). The evidence shows that “from 1990 to 2003, including in 1999 when payments to the states began from the historically significant state Master Settlement Agreement (MSA)...that key policy outputs primarily favored the tobacco industry” (p. 411). Givel concludes, ...despite the symbolic appearance of punctuation in the policy system, the tobacco industry was able to use its political resources to counter the health advocates' mobilization, adverse public opinion regarding tobacco

use, litigation, and even a rise in new state tobacco control legislation” (p. 415). In short, the MSA did not represent a true punctuation and thus the PET-PS pattern of long periods of policy stability and punctuated by short, intense periods of policy instability does not describe recent tobacco policy.

The second and third articles article of the mini-symposium challenge Givel’s conclusion of the inaccuracy of PET-PS to describe recent tobacco policy. In “Tobacco’s Tipping Point: The Master Settlement Agreement as a Focusing Event,” Robert Wood finds that the MSA did indeed represent a punctuation (Wood, 2006). Since the MSA focused substantial attention on the topic of tobacco regulation, produced major policy change, and shifted the policy image of the domain, it was either not a typical focusing event or a different kind of focusing event, it was a “tipping event” that indicates a punctuation in the policy domain. The case of the MSA shows increasing congressional attention coupled with decreasing jurisdictional clarity (p. 426), which is indicative of punctuations and thus points to the accuracy of PET-PS for understanding recent tobacco policy. “In approving the MSA,” he writes,

The state governments of the United States ushered in a new area of regulation for both manufacturers and consumers of tobacco products...The MSA represents genuine policy change and will have lasting institutional impacts in the manufacture, sale, advertising, and consumption of these products in all 50 states. (p. 431)

Although he does seem to impute some causality in PET-PS, Woods is primarily using PET-PS to describe the evolution of tobacco policy, not to explain it, precisely as Gould and Eldredge intended for the theory to be used.

In the mini-symposium’s third article entitled “Up in Smoke: Mapping Subsystem Dynamics in Tobacco Policy”, Worsham employs PET-PS—or as he wonderfully puts it, this “volcanic vision of the polity”—to argue for its appropriateness in describing the evolution of tobacco policy (Worsham, 2006). To understand policy change in tobacco, Worsham argues, one must use a longer time horizon than Givel did above (1990-2003). Examining tobacco policy from 1945 to 2004,

Worsham finds that tobacco policy has been under stress since Surgeon General's report in 1964 as its policy subsystem transmogrified from the dominant scenario of a policy monopoly to a highly competitive, "transitory" one of many intersecting and conflicting interests that belie "a loosening of subsystem control over the dominant image underlying the policy equilibrium" (p. 442). "Quite simply," he writes, "as more venues became involved, the discussion shifted from the promotion of tobacco to a focus on tobacco as a health hazard" (p. 442), which facilitated the punctuation of the MSA in 1998. Once again, however, Worsham is using PET-PS to analyze the history of tobacco policy, not to explain it. "Clearly," he concludes, "the Global Tobacco Settlement [MSA] represents the transformation of the image of tobacco from just another industry, to a health hazard. Quite simply, the dominant image associated with tobacco is one that is now clearly tied to disease." (p. 450) Tobacco policy thus displays the PET-PS pattern of a long period of policy stability (i.e., dominant scenario through early competitive scenario) punctuated by the intense period of the dramatic policy change (i.e., late competitive scenario thorough transitory scenario) embodied in the MSA in 1998.

The classification of PET-PS as an analytic theory, however, does not mean that it has no causal implications. On the contrary, Baumgartner and Jones have built in to PET-PS a great deal of causal implication and causality for PET-PS, much of which is detailed in Baumgartner and Jones (2002b). In this book chapter they link negative feedback—or diminishing returns to scale—and positive feedback—or increasing returns to scale—to PET-PS. Negative feedback predominates during the long periods of stability as it enforces at most only incremental change and positive feedback during the punctuations as it allows for radical change. Positive feedback effects allow for radical change when "a policy monopoly begins to lose its supporting policy image" and new actors gain access and open up new institutional venues. "These [positive-feedback] models are characterized by self-reinforcing processes in which change in one case makes change in the next

case more likely” (p. 7). Momentum, bandwagon effects, thresholds, cascades, cue-taking, mimicking, serial shift, and attention-shifting are all mechanisms behind punctuations, according to Baumgartner and Jones. *None of these mechanisms, however, are true explanatory theories that relate to the substance of actual policy, which I hold should be the core of a theory of policy change.* They are all structural mechanisms that underlie first and foremost the relative frequency of dominating pattern of how policy change is occurring, not why.

“The driver of the model [i.e., PET-PS] was attention” (p. 19), Jones and Baumgartner declare. Jones and Baumgartner’s *The Politics of Attention* (2005) provides a causal model for PET-PS for punctuations in attention or “policy effort,” but again not of substantive policy change. They a “general punctuation thesis”: “As all government institutions impose costs, we expect all outputs form them to show positive kurtosis (p. 170). An example is evident in welfare policy (Ch. 8, pp. 222-225): “The irony of welfare policy is that major welfare initiatives were declining in intensity, and interest by government officials declines when the problem stopped getting better and actually worsened. All of this happened without the deep concerns of the mass public that characterized economic and crime policies” (224). The implication here is that policy change is occurring not because of any objective policy demands or needs; rather, the policy area is simply getting a lot of attention. Issue-attention drives the relative frequency of punctual change, not anything related to the specific policy domain. As Jones and Baumgartner, “An alteration in the commitment of a government to an objective” (p. 117). What about substantive changes in policy goals, instruments, etc.? A true causal theory of policy change must direct link policy change to objective policy demands and needs, not simply outcomes.

The crucial point, however, is that the causality that Baumgartner and Jones have built in PET-PS stop short of explaining why policies change objectively. The causality does not transcend the underlying deep analytic structure of punctuated equilibrium. I maintain that the causality and

causal implication comprise an adventitious and separate set of sub-theories that are not essential to PET-PS providing an analytic framework for the relative frequency of how policies change. As Baumgartner and Jones reveal in Chapter 1 of *Agendas and Instability in American Politics*, “We ...focus here not on the reasons for these changes but on their consequences” (p. 12).

Policy Entrepreneurship and Punctuated Equilibrium Theory

It is very important to note that each of the three articles of the mini-symposium *do* offer explanations for policy change or its lack thereof. Givel explains the lack of true punctuation in the MSA because of the continued power of tobacco lobby. Wood argues that punctuation did occur because of the occurrence of a tipping event. And Worsham argues that the changing tobacco policy subsystem facilitated the punctuation embodied in the MSA. Neither article, however, utilizes PET-PS as a basis for explanation. Rather, the authors mention more or less “ad-hoc” explanations appended to PET-PS. As an alternative, I suggest that one can integrate into PET-PS the concept of policy entrepreneurship reconceptualized according to the classical economic theories of entrepreneurship of Joseph Schumpeter and Israel Kirzner. I argue that policy entrepreneurship reconceptualized and integrated into PET-PS (Shockley, 2008) ***ges gives the theory explanatory power . As Sheingate (2003) observes, “One must endeavor to find evidence that can help adjudicate between mechanisms of change rather than outcomes, between an endogenous process of entrepreneurship, an exogenous crisis or critical juncture, and a self-reinforcing sequence along a particular path” (p. 201).

Policy Entrepreneurship in Baumgartner and Jones’ PET-PS

Baumgartner and Jones seemingly accord the concept of policy entrepreneurship a vital function in PET-PS for policy studies as they build on the introductory work of William Riker and John Kingdon. They first find the policy entrepreneur in Riker’s *Liberalism against Populism* (1982; ; also see Riker, 1986). “In such a situation, strategic entrepreneurs can manipulate the voting

situation to achieve their objectives, even if they cannot change the preferences of those making the decision. Most importantly, any time political actors can introduce new dimensions of conflict, they can destabilize a previously stable situation” (Baumgartner & Jones, 1993, pp. 13-14). Then, in *Agendas, Alternatives, and Public Policies* (1995), Baumgartner and Jones identify Kingdon's policy entrepreneurship as “artful connection of solutions to problems”: “The trick for the policy entrepreneur is to ensure that the solution he or she favors is adopted once a given problem has emerged on the national agenda” (Baumgartner & Jones, 1993, p. 29). Based on Riker's and Kingdon's work, Baumgartner and Jones early conception of policy entrepreneurship in *Agendas and Instability in American Politics* (1993) is one who is “attempting to alter other people's understandings of the issues in which they deal” (p. 42), which is a fairly passive and incidental conception of policy entrepreneurship, at least relative to the conception of the entrepreneur in the economics literature.

In their later edited volume *Policy Dynamics* (2002a), Baumgartner and Jones add some robustness to their conception of policy entrepreneurship. Policy entrepreneurship, they write, is “the willingness of a political actor to invest resources in a given lobbying struggle is likely to be related to two things: The probability of success (which is related to expected behaviors of other actors involved), and the expected benefits” (Baumgartner & Jones, 2002b, p. 22). Two other contributors to the edited volume provide similar conceptions:

- (Feeley, 2002, p. 126): “A successful policy entrepreneur is able to correctly assess which goals will be most attractive to the constituency groups she is targeting and will adjust her tactics accordingly to maximize her chances for success.”
- (MacLeod, 2002, pp. 58-59): “Policy entrepreneurs are strategic actors that do not want to waste their time on challenges that will be ignored (see especially Kingdon 199, chap. 8, on this point)...Decisions by groups or members of government institutions to challenge the status quo can be thought of as a function of preferences and expectations of success:
“Probability (decision to challenge the status quo) = (actor preference) * (perception of chances of success) + e”

The problem is that Riker's and Kingdon's (and, derivatively, Baumgartner and Jones') conceptions of policy entrepreneurship provide no causal force. Policy entrepreneurship, however, reconceptualized in the Schumpeterian and Kirznerian tradition adds causality in its function.

Classic Entrepreneurship Theory in Economics: Kirzner and Schumpeter

Entrepreneurship plays a causal function the economy, according to both Israel Kirzner and Joseph Schumpeter, who might be called the classical theorists of entrepreneurship in economics.

In Kirznerian entrepreneurship, the primary effect of entrepreneurship is "equilibration," that is, the movement of a market toward an equilibrium state. "For me," Kirzner (1973) writes, "the changes the entrepreneur initiates are always toward the hypothetical state of equilibrium..." (p. 73).

Entrepreneurship and equilibration are central to the market process because they facilitate profit opportunities. According to Kirzner (1973), entrepreneurial opportunities for profit occur only in disequilibrium resulting from human error,⁶ usually taking the form of arbitrage opportunities arising from price discrepancies (p. 26). In economics terms, the market is in a state of disequilibrium because a given product or service can be purchased in one place cheaper than it can be sold in another. When the entrepreneur's alertness identifies the potentially profitable arbitrage opportunity in disequilibrium and acts entrepreneurially by buying cheap and selling dear, the equilibration process is triggered (Kirzner, 1979, p. 116). Once the entrepreneurial transaction has been consummated, the entrepreneurial opportunity disappears and the disequilibrium begins to lessen as the system moves toward equilibrium. "The dynamic competitive process of entrepreneurial discovery..." Kirzner (1997) writes, "is one which is seen as *tending systematically toward*...the path to equilibrium" (p. 62, emphasis in original). Thus, the major effect of Kirznerian entrepreneurship is to move the market toward equilibrium.

⁶ In this study, I interpret "human error" to be synonymous with the suboptimal decisions and actions resulting from bounded rationality (see Simon, 1945/1976, 1982), imperfect information (e.g., Hayek, 1945), incomplete knowledge (e.g., Hayek, 1952), and other human limitations.

Like Kirznerian entrepreneurship, Schumpeterian entrepreneurship also produces important effects in a market economy. In fact, Schumpeter places the effects of entrepreneurship at the center of his theory of economic change and development. “Development,” Schumpeter argues in *The Theory of Economic Development* (1934/2002), “is spontaneous and discontinuous change in the channels of flow, disturbance of equilibrium, which forever alters and displaces the equilibrium state previously existing” (p. 64). In other words, entrepreneurship in the form of the “carrying out of new combinations” is the main cause of economic development. In Schumpeterian entrepreneurship, “introducing a new good or method of production, opening of a new market, identifying a new source of supply of raw materials or half-manufactured goods, or carrying out of the new organisation of any industry” (p. 66) all individually or in combination have the potential to cause “spontaneous and discontinuous change” in an economy and spur economic development. (Also see Schumpeter, 1926/2003; Sweezy, 1943.) “By introducing innovations,” McKee (1991) observes, “the [Schumpeterian] entrepreneurs jump-start the system from the range of equilibrium...The overall impact regenerates the system, causing it to expand” (p. 8).⁷ Thus, as in Kirzner’s theory, Schumpeter’s theory of entrepreneurship is a functional one that emphasizes the effects of entrepreneurship, namely, to drive positive economic growth and development. Therefore, a theory of entrepreneurship in public affairs is that, like Schumpeterian and Kirznerian entrepreneurship, it includes the larger, systemic effects of entrepreneurship.

Another component common to both Schumpeterian and Kirznerian entrepreneurship, and one that is a logical extension to the above discussion on the effects of entrepreneurship, is that the function of entrepreneurship takes priority over the description of entrepreneurs or mere identification of entrepreneurial activity. Both Kirzner’s and Schumpeter’s theories of

⁷ Similarly, Schumpeter in *Capitalism, Socialism, and Democracy* (1950) contends that political entrepreneurs spark revolutionary change, much like technological innovation “reform[s] or revolutionize[s] the pattern of production by exploiting an invention” (Albrecht, 2002, p. 651).

entrepreneurship can be understood as *causal, functional* theories of how entrepreneurship produces equilibrative effects in the market (Kirzner) or economic growth and development (Schumpeter). Schumpeter clearly distinguishes between entrepreneurship and entrepreneurs when he defines enterprise, or entrepreneurial activity, as “the carrying out of new combinations” and entrepreneurs as “the individuals whose function it is to carry them out” (Schumpeter, 1934/2002, p. 74). It is thus entrepreneurship, and not the entrepreneur, that drives economic growth and development. In Schumpeter’s theory, entrepreneurs are subordinate to the function of entrepreneurship in the economy.

The priority of entrepreneurship over the entrepreneur is even more apparent in Kirznerian entrepreneurship. Kirzner is not concerned with the identification of individual entrepreneurs. Since, according to Kirzner, any individual has the potential to be an entrepreneur, whoever turns out to be an entrepreneur is at most of secondary importance. Of primary importance, rather, are the effects of entrepreneurship. Like Schumpeter, Kirzner places entrepreneurship and its effects as the cornerstones in explaining the market process. “The market process...,” Kirzner (1992) writes, “consists of those changes that express the sequence of discoveries that follow the initial ignorance that constituted the disequilibrium state” (p. 44). In other words, according to Kirzner, entrepreneurship—not the individual entrepreneur—plays the vital function in the market. As Vaughn (1994) puts it, “Kirzner is clear that he is describing a function rather than a kind of person, just as labor and capital are themselves functions in economic theory” (p. 142). Or, as Gloria Palermo (2002) puts it, “Kirzner’s theory of entrepreneurship focuses on the equilibrium *function* of the entrepreneur” (p. 36, emphasis added). Thus, it is entrepreneurial activity, not individual entrepreneurs, that is paramount in both Schumpeterian and Kirznerian entrepreneurship. The function of Schumpeterian and Kirznerian entrepreneurship takes precedence over its instruments, namely, mere entrepreneurs. Another requirement of a theory of entrepreneurship in public affairs

is that, like both Schumpeterian and Kirznerian entrepreneurship, it gives priority to the function of entrepreneurship over the mere instrumentality of individual entrepreneurs.

Conclusion

Prindle (2012) exhorts that “there needs to be more theoretical attention given to the process of integrating mechanical concepts, metaphors, and analogies with the outcomes of meaning and choice that is subject is the subject of the [PET-PS] project” (p. 37). My emphasis on policy entrepreneurship is an attempt to do just that. Policy entrepreneurship reconceptualized in terms of Schumpeter and Kirzner becomes a functional theory with causal force. Integrated with PET-PS, policy entrepreneurship becomes either the cause of punctuations, which is a Schumpeterian reconceptualization of policy entrepreneurship, or it is the stabilizing force that ends the punctuation, which is a Kirznerian reconceptualization of policy entrepreneurship. Gould (2002) writes, “The punctuational component, operationally measured by its short duration relative to periods of stasis within definitive structures of the same scale, would then achieve homological generality as the observe to proposed reasons for stasis: the reinterpretation of change-at least in its usual, if not canonical, expression-as a rare and rapid event experienced by systems only when their previous stabilities have been stretched beyond any capacity for equilibrial return, and when they must undertake a rapid excursion to a new position of stability under changed conditions” (p. 929).

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