

Narrative Change and its Microfoundations:
Problem Management, Strategic Manipulation, and Information Processing

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Abstract

This paper reviews three distinct conceptions of the microfoundations underlying policy narrative change over time, namely (1) the 'problem management' perspective, which sees narrative change as the outcome of administrative decisions by policy elite; (2) the 'strategic manipulation' perspective, which links change in problem perception to the strategic interplay between stakeholders vying for agenda control and problem ownership, and; (3) the 'information processing' perspective, which explains narrative change in terms of our abilities to process information both at the individual and the organizational level. While each of the three modelling perspective relies on distinctly different portrayals of the individual, they generate highly comparable predictions about the pattern in which narrative change unfolds. A model of social emergence can draw on these theoretical foundations to extend our understanding of the dynamic complexity underlying the curious pattern of narrative change.

Introduction

Policy narrative concerns how policy problems are understood. To define a policy problem is to create a constructed view of a condition specified in terms of its undesirability and cause. A policy narrative must tie the condition of interest - a condition that is undesirable but conceivably corrigible through remedial efforts - to a cause or causes so that a solution can be formed to address it. Stone's (1989) view of the policy narrative formation as a process is one of causal storytelling, "where the images [of policy problems] have to do fundamentally with attributing cause, blame, and responsibility"; provided the subjective nature of policy narrative, "conditions, difficulties, or issues thus do not have inherent properties that make them more or less likely to be seen as problems or to be expanded" (282). Understandably, multiple stories can be told about the same undesirable condition. It may be that the issue is too complex and multifaceted to allow only a single interpretation of its causes. It may also be that the parties affected by the problem disagree as to the assignment of blame and responsibility underlying the policy efforts to correct it. It can also be that information about the problem is provided in a disjointed fashion, and the problem is narrated differently as new information becomes available over time. Regardless of these and other theoretical speculations about the origin of the plurality of policy narratives, what we can say with confidence is that policy narratives are not static. Conditions that come to be classified as problems change not so much in their objective nature, but the way they are imagined transforms over time.

Capturing the nature of this transformation therefore addresses a fundamental aspect of politics. There is a general agreement that the pattern of change is often characterised by abrupt shifts from one policy image to another in between long periods of incremental drifts. Downs (1972) compares "cycles of attention" to policy issues to the life cycle of an organism. Issues are normally in "limbo", receiving scant attention from the general public until a special event occurs to create sufficient disturbance and intensify attention. The noise invites new conceptions of the issue, but the interest will soon dissipate once the full complexity of the new solution is realized, at which point the "limbo" state of things is restored. Likewise, narrative change is a process that alternates between long periods of

stasis and short-lived moments of frenetic activity (Baumgartner and Jones 2009). However, how such a patterning is related to micro-level behaviour remains contested. While traditional theories focus on policy definition as a rational exercise by administrators responding to new information about policy problems, recent research highlights the indeterminate nature of the process of narrative change due to political manoeuvring by stakeholders and the cognitive biases built into the human cognitive system. What is so curious about the narrative change literature is the fact that drastically different conceptions of the individual do not prevent these theories from generating highly comparable predictions about the pattern in which narrative change unfolds as the aggregated outcomes of individual decisions and actions. In face of these diverse frameworks, the task to unify the individual behavioural model remains central to any theoretical explanation that gives serious consideration to the emergent nature of the process of narrative change. To that end, I will specify and contrast the microfoundations of three principal perspectives on narrative change in order to identify the theoretical foundations for a more coherent portraiture of the micro-macro connections between the narrator and the narrative. As further research on human cognition moves closer to the social context in which personal attitudes are formed, maintained, and modified, one aspect that remains to be clarified is the role of social networks in shaping the dynamic of narrative change as an emergent phenomenon.

The microfoundations of narrative change theories

It is hard to imagine a theory of policy narrative that does not begin with the individual. Ideas are conceived by the individual, and they spread from one individual to another before they become the accepted view of the policy community. At the same time, as these ideas come to dominate the policy discourse, what the individual does in response only matters when the impact of his actions is amplified by aggregative mechanisms. Narrative change, in other words, unfolds as part of the interplay between individual behaviour and macro-processes: policy narratives exist because policy actors think about problems and try to describe and explain it in some coherent manner, yet what these actors think and do is influenced by the prevalent narrative that they share or object to. Narrative change is a complex process because it is emergent and dynamic in nature (Sawyer 2005), and this makes the specification of the microfoundations the most basic and challenging task in theorizing the phenomenon of narrative change.

I organize the literature review according to the microfoundations each school of scholars subscribes to in explaining narrative change. In the problem management perspective, narrative change can be considered as the outcome of an administrative exercise where rational policy actors define a policy problem according to the amount of new information available to them. The theoretical perspective of strategic manipulation presents narrative change driven by the political conflict between interest groups vying for greater influence over the policy agenda and making rival ownership claims of the issues at stake. The concept of information processing is central to the third perspective, which stresses the role of cognitive limitations that create friction and inertia for organizations and the individuals within them responding to problems. The microfoundations are drastically different as we move from one theoretical perspective to another. These differences indicate the plurality of possible causal pathways that theorists can selectively analyze in isolation without compromising the model's prediction of the pattern of narrative change.

Problem management

Dery (1984) speaks of problem definition as a practice, and is concerned with how a problem 'may be usefully defined' (21). Echoing von Mises (1949), Lasswell (1935), and other scholars of purposive human behaviour, Dery argues that the individual is really

confronted with a problem when the condition is deemed to be undesirable and potentially amenable, and an attempt is made to make sense of it so that appropriate and feasible remedial action can be meaningfully pursued. In other words, in defining a problem, the policy actor engages in an analytical exercise to orient and organize policy effort by identifying the opportunities for improving a suboptimal condition (Dery 1984:21-27). The methodical nature of the practice of problem management is in sharp contrast with the reality. Information is often insufficient, and pre-existing institutional restrictions mean that large-scale revision to current policy practice is an unrealistic answer to urgent problems. It follows that the purposive and rational individual, in developing narratives that will guide the formation of effective policy solutions, must negotiate with "the radical uncertainty resulting from the limited knowledge of acting man" (von Mises 1949:9). The scarcity of new information couples with the rational propensity to reduce risk exposure to encourage problem management strategies that are defined by incremental drifts towards specified goals.

At the organizational level, theorists of problem management are conscious of the limitations that restrict the administrator's ability to define problems effectively. The situation approaches the design of a game where legal and institutional rules favour certain behaviours and discourage others (Morgentstein 1975). Public administrators operate in an organizational environment structured by pre-existing rules: what they can do with problems - and even what they can see and attend to with regards to these problems - is severely limited by these rules. The public administrator cannot effectively pursue a policy definition that dramatically departs from the organization and policy that are already in place. Organizations also, by nature, "restrict and direct their members' attention" (Dery 1984:102). Problem definition in an organization is heavily shaped by pre-existing premises in face of which the public administrator has limited space to manoeuvre. In other words, narrative change is limited by how much the proposed change - reflecting the adoption of a new solution - can be successfully accommodated by an essentially path-dependent system. Considerable costs are incurred when an organization adopts a new policy narrative because of the coordination necessary to reform the rules into which the previous narrative was entrenched. Apart from the risks associated with drastic revisions to current practice, these costs make an incremental approach more viable as a strategy for narrative change (Wildavsky 1975). "No problem is identified as an explicit issue," Weiss (1980) observes the policymaking process with a hint of amazement, "no identifiable set of authorized decision makers meets, no list of options is generated, no assessment is made of relative advantages and disadvantages, no crisp choice is made... it seems it *just happens*" (382). It is in such a context that administrators conduct the business of government and measure their actions based "on the sum of their knowledge and judgment... of the nature of problems and of feasible responses" (Weiss 1980:382).

In these early theories of narrative change, the problem-solver follows a certain set of heuristics in managing policy problems in face of the environmental complexity outlined above. In possession of a limited knowledge about the problem and confronted by environmental 'noise' interfering with information search and reception, the problem-solving agent has to make risk-prone decisions but also avoid big revisions to the status quo - complexity is thereby overcome by the adoption of standard heuristics such as trial and error and incremental adjustment. In other words, how much the individual is capable of managing uncertainty depends entirely on how much information is made available. Such a behavioural model approximates the classical information theory where environmental noise and information scarcity limit actors' ability to adequately respond to arising problems. But the theory also implicitly assumes comprehensive rationality at the agent level: once the information is obtained, the agent simply acts accordingly (Jones 2001). Policymakers may not be fully responsive to emerging problems because of path-dependency and information scarcity. Yet, presumably a rational decision - including complete revisions of policy

narratives - is to be expected when problem framing is unfettered by pre-existing institutions and information is made fully available as no other major barrier shall present itself to undermine problem management.

For all its emphasis on the incremental nature of policy processes, theorists of problem management recognises 'shift points' in policy change where the policy narrative is dramatically removed from the status quo. Calling these 'deviant cases', Wildavsky (1975) attributes moments of volatile budgetary shifts to agency reorganization, new legislation, change in appropriation and accounting methods, and partisan controversy. These empirical findings complement with the underlying assumptions where only institutional and organizational obstacles prevent rational administrators from undertaking comprehensive revisions of the policy narrative; as soon as institutional restrictions are removed by such periodic events as national elections and the formation of new laws, actors are free to revise the way policy problems are managed. "As problems are redefined, new organizing ideas are introduced: new structures, division of labor, and new specializations are called for" (Dery 1984: 93). The rare occurrence of large-scale structuring of government agencies means that the pattern of narrative change is punctuated because such windows for the comprehensive rationality to overcome institution-based restrictions are infrequent and short-lived. Once a new set of institutions are created to secure the new narrative, rational actors find their attention and room for manoeuvre too restricted to adopt a dramatically different policy definition.

	Problem management	Strategic manipulation	Information processing
Information	Actors are recipients of information; ability limited by lack of information due to noise in environment; information is scarce and collection involves prohibiting costs	Information is presented selectively to fit the favoured policy image; actors may try to suppress new information that contradicts the dominant narrative	Interpretation of information hampered by bounded rationality on top of environmental noise; information is abundant, the problem is to select not search
Rationality	Actors as rational processor of information; narrative change is a function of information availability; simple incentive structure can influence behaviour; exercise of rationality constricted by costs of coordination and information scarcity	Actors react to institution-based incentives and deterrences and negotiate with them when pursuing agenda control and problem ownership; problems are framed according to what interests the solution will serve	Bounded rationality relies on heuristics to overcome both environmental uncertainty; attention to information is spread disproportionately and information processed serially, limiting our cognitive capacity to read information

Heuristics	Strategies to reduce complexity and uncertainty lead incremental change; but this is based on rational calculations of the risks associated with big changes rather than heuristics	Actors calculate their actions based on the projected costs and risks of different strategies; the role of heuristics in these calculations is not obviously stated	Heuristics enable actors to cut deliberation costs that are too high for routine, repetitive tasks; they also become rigid and disable ad hoc behavioural adjustment over time
Action and response	Confounded by path-dependent mechanisms; framing unfolds in incremental drifts from the entrenched image; gov't restructuring allows large-scale policy shifts	Conflict expansion and containment; scope of issue determines intensity of debate and degree of potential change; responses are measured to channel change but control over the process is limited	Actors ignore new information about policy problems that contradicts existing interpretation; but overreact when focal events draw attention to formerly neglected issues
Institutions	Institutions are the primary barrier to drastic narrative change; new laws and elections provide opportunities for large-scale narrative revisions manifest as policy changes generally	Entrench dominant frame; conflict containment works when institutions confine scope and access of discourse; challengers practise venue-shopping in search of more receptive venues	Embodiment of dominant narrative; enable parallel processing of ad hoc and routine decision-making; economise attention; responsible for systemic friction and stasis
Micro-macro connections	Actors more or less exercise direct control over the course of narrative; but at the same time, high costs of communication and coordination mean that each actor can achieve exercise limited influence of the narrative process, including those in leading org. positions	Actors' individual influence limited, impact contingent on action and reaction of other actors; entrepreneurial activities sensitive to macro-level changes; leading actors may seem to exercise greater control but visibility belies subtle control exercised by low-profile actors	The cognitive structure of the human mind allocates attention disproportionately and processes information serially, leading to the rise of institutions that exhibit similar limitations; narrative change is punctuated in policy systems that whose institutions are fashioned accordingly

Table 1. Comparisons across the three theoretical perspectives for narrative change

Strategic manipulation

What policy actors do to shape the policy discourse has real impact on policy narratives. The strategic manipulation perspective trains our analytical focus on political behaviour driven by the conflict over the policy agenda and maintain problem ownership. Since a particular

policy definition is associated with a particular solution, control over the policy agenda and ownership of the problem protect entrenched interests profiting from the current policy arrangements. Stakeholders who are marginalized by these arrangements are likely to prefer an alternative solution that would put them in a more favourable position, but, like the public administrator trying to revise policy definitions, the institutionalization of public policy means that the opponents' space of manoeuvre is severely restricted. What distinguishes it from the problem management perspective is that actors are considered to be far more resourceful in actively overcoming these restrictions - the more serious problem for agenda challengers is not the institution, but those who make use of the institution to contain and suppress agenda conflict (Kingdon 1994; Schattschneider 1960; Pralle 2006). Extending their observaiton beyond the administrator to other actors in the policy community, theorists of agenda conflict argue that stakeholders are locked in a struggle to either maintain the dominance of the prevailing narrative or undermine it with a new narrative that promotes marginalized interests. The punctuated pattern of narrative change is rooted in the antagonistic interactions as a result of that struggle.

Schattschneider (1960) and Pralle (2006) group the strategies into two categories: conflict containment strategies that limit the extent and impact of agenda conflict, and conflict expansion strategies that maximize noise and disturbance in the process. Pralle (2006) specifies these strategies across three focal points: issue definition, actors, and institutions and venues. In order to contain agenda conflict, policy actors favour problem and issue definitions that have narrow terms and limited linkages to other issues (Schattschneider 1960; Stone 1988). Restrictive definitions allow only a limited set of stakeholders to be legitimate claimants of the ownership of problems, invalidating rival claims of ownership by excluded policy stakeholders. For example, some issues are portrayed as being too 'technical' or 'specialized' for non-professionals, such as arts policy and nuclear energy policy in the mid-twentieth century (Baumgartner and Jones 1993), or catering only to exclusive groups of individuals, such as medical services for veterans, and cases of police violence reported as isolated instances (Lawrence 2000). In these cases, "policy actors manipulate the symbols and rhetoric associated with [the] conflict" (Pralle 2006:17) to disable potential narrative challenges. To counter these efforts at conflict containment, proponents of narrative change pursue another set of strategies that increase public attention to the policy issue and highlight its implications for the welfare of the broader public. Socialization of the scope of policy issues (Schattschneider 1960) or conflict expansion (Pralle 2006) injects instability into the policy process, which in turn undermines the agenda control of the dominant policy image.

Conflict expansion and containment create the same dynamic responsible for the punctuated pattern of narrative change over time. Schattschneider (1960) makes the observation that the democratic political system is torn between forces pushing for change and those that suppress it, and the resultant "politics of small group... [is] a selective process ill designed to serve diffuse interests"; such a system is "skewed, loaded and unbalanced in favor of a fraction of a minority" (35). In other words, the dynamic of agenda conflict alternates between long periods of stasis during which agenda challenges are contained, and abrupt moments of dramatic shifts when the policy narrative changes in response to rapid intensification of public attention. Pralle (2006) refines the argument with the contention that once the the momentum of conflict expansion is triggered, policy actors on both sides of the conflict will try to manage the conflict by forming coalitions and alliances with marginal interest groups that subscribe to the same policy image. In the case of old-growth logging in Clayoquot Sound (Pralle 2006), the rapid spread of agenda conflict to actors normally on the periphery of the debate contrasts sharply with the decades preceding the expansion when the problem of contention was "relatively contained to those with a direct interest in forestry issues" (49). The rapidity of how the decades-old problem of logging and deforestation in an obscure valley in British Columbia became "the global

icon of the conservation movement" in a matter of months points to the familiar unevenness in pattern of narrative change.

Kingdon (2003) links the pattern of narrative change to entrepreneurial actions in policy communities. Following the argument of Cohen, March and Olsen (1978), Kingdon suggests that policy narrative evolves in a fluid, indeterminate environment in which the streams of policy, politics, and problem sporadically converge to open 'windows' for entrepreneurial manipulation that may lead to narrative change. The interactions within a community of administrators, bureaucrats, advocates, legislators and politicians are not necessarily adversarial, and depending on where they are situated in the policy subsystem, policy actors do not normally interact with others located outside their jurisdiction or venue. Such functional and institutional divisions mean that, on a day-to-day basis, legislators and senior government officials do not interact frequently with career administrators who implement the policy; other stakeholders such as experts and lobbyists also operate in their respective domains in the policy process, resulting in a 'hold-out' situation where opportunities for narrative change are forestalled. Interaction between these sub-communities only occurs when focal events pull the attention of the entire policy community to a common focus, at which point entrepreneurial manipulation of the window may trigger narrative change if the exigencies of the moment are favourable.

There are similar models of agenda conflict that envision the structure and dynamic of narrative change in comparable conflictual terms (e.g. Stone 1989). Cobb and Ross (1997) impose a distinction between policy agenda and formal agenda. The formal agenda refers to the set of policy narratives that are embodied and enforced by formal agencies, while the policy agenda arises from the broader where marginal, non-elite stakeholders operate. Their research focuses on strategic choices that are available to dominant actors to restrict access to the policy agenda. Restricted accessibility insulates the policy agenda and hence preserves the narrative favoured by the policy elite. Confronted with policy institutions that have an "inherent disposition to pass over new issues, along with opponents' strategies to actively resist consideration of proposals for new actions," agenda conflicts "simply die a natural death due to the inability of the initiators [of alternative policy narratives] to overcome the resistance of the opposing forces and the disinterest of the public" (Cobb and Ross 1997:203). These research contributions to the theory of narrative change by detailing a variety of denial tactics available to the policy elite to protect dominant policy narratives from challenges from dissatisfied actors and account for the many instances where concerted efforts to bring about narrative change are unsuccessful. The outcome of successful agenda access denial is the familiar incremental drifts that characterize the static intervals of the process of narrative change. More critical challenges demand high-cost strategies to keep new grievances from the formal agenda.

The adversarial politics of problem definition keeps the policy system in a permanent state of indeterminacy. While the microfoundations are not directly specified in the model for agenda conflict, agents of narrative change are implicitly portrayed to be highly sensitive to incentives and constraints in the policy environment, based on which strategic calculations are made to direct the scope and intensity of agenda conflict. They act strategically to maintain control of the policy agenda and defend the entrenched policy narrative if it is compatible with the particular interests these actors are affiliated with, and to undermine the dominance of the entrenched narrative if their interests are marginalized and even threatened by it. Such a conception of the individual agent differs from the problem management perspective in several significant ways. First, it gives interest-driven politics a proper place in the theory of narrative change, and extends the scope of observation to include stakeholders whose influence over the policy narrative is often underestimated due to the restricted focus on policy actors occupying formal positions in government and agencies. More importantly, scholars of agenda conflict consider actor behaviour as

responses to narrative change, thus establishing a direct micro-macro link between behaviour at the individual level and the emergent macro processes at the aggregate level. Finally, in contrast to the agent model in the problem management perspective, theorists of strategic behaviour acknowledge the limited influence of individual policy actors have on the dynamic of narrative change and the resultant unpredictability of the process.

Information processing

In their work on budgetary changes, both Lindblom (1959) and Wildavsky (1975) focus on the limitations on information search in terms of costs. These earlier models identify the policy actor as a rational decision-maker trapped in an environment where information is scarce and high costs are involved in coordination, disabling the option of comprehensive policy change most of the time. The consequentially incremental adjustment to the status quo over time, which Lindblom (1959) characterizes as "muddling through", is a function of the system's inability to accommodate holistic revision of policy narratives. This modelling perspective proves to be difficult to account for abrupt changes in policy narratives, which are well documented but recognized only as "deviant cases" in earlier research (Wildavsky 1975). Punctuations in budgetary processes and agenda processes are not compatible with a behavioural model solely defined by the propensity to limit computational costs, search, and risks by making small adjustments to the status quo.

To fashion an agent model that incorporates moments of extreme change in policy narratives, the information processing perspective relies on recent advances in cognitive science to specify not just how information is collected but also how it is interpreted by the human mind. In the information processing perspective, how individuals receive, collect, examine and generate information affects the policy process in fundamental ways. Moving away from the assumption of complete information and perfect rationality in information theory, theorists of information processing provide a revised behavioural model that represents a refinement of the microfoundations of narrative change. The outcome is a new agent model that rests on the rejection of the traditional view that information "is simply another 'good' that will be supplied if the price is right", that is, when "someone needs information, they pay 'search costs' to have someone else supply it" (Jones and Baumgartner 2005:viii). In the context of agenda conflict, too many people are generating too much information, making the problem one of information selection rather than search. With the assumption of information scarcity rejected, how actors allocate attention and adopt policy narratives in face of a superfluity of information are central to the new microfoundations of narrative change.

The principal contribution of the information processing perspective is the creation of an adaptive behavioural model that allows theorists to look at policy narrative formation and adoption as the outcome of the interplay between goal-oriented calculations in agenda conflict and the limitations on human cognitive capacities. Baumgartner and Jones (2005) outline the chief limitations that contribute to the discrepancy between the actual magnitude of a stimulus and our cognitive translation of its strength (see also Jones 2001). Framing (Kahneman and Tversky 1979) confines our attention to a few attributes of a problem, which removes the need to conduct complete search of information and reduce deliberation costs by heuristically matching prepackaged solutions to problems exhibiting recognized narrative 'patterns' (Jones 2001). While policy problems are multifaceted, attention scarcity means that individuals can only attend to very few of them serially, leaving other problems ignored. The reliance on heuristics also means that prepackaged solutions become less suitable in changing environments over time, yet the logic of heuristic problem-solving renders incremental fine-tuning of these solutions unavailable. Allowing that the individual either underreacts or overreacts to stimulus (Clark 1997), narrative change assumes a punctuated pattern when policy actors choose between checking and jumping. Checking at

times delays genuinely necessary change in the policy narrative, but it complements the need to adaptively economize attention and computational resources.

Jones and Baumgartner (2005) connect the individual behavioural model with the pattern of narrative change by situating organizations as the intermediate linkage between the two levels, although the aggregative mechanisms are not specified in terms of agent-to-agent interaction. "Since organizations are made up of humans, the cognitive architecture of human decision making affects how decisions are made within organizations" (Jones and Baumgartner 2005:38). Parallel dynamics occur in both the individual restricted by his cognitive capacities, and in the human organizations where comparable mechanisms are at play to generate the strikingly similar friction and inertia underlying organizational responses to stimulus (Workman, Jones and Jochim 2009). In other words, the punctuated pattern of narrative change results from the projection of the cognitive restrictions of the individual on human organizations, rather than from the aggregation of such effects emerging from agent-level interaction within these organizations. The distinction is of significant theoretical import: what is being proposed is not a model of emergence, but one that draws analogical similarities between systems that are different in scale but nested in one another. Government, like the individuals within it, allocates attention disproportionately to a restricted numbers of problems. It relies on a particular narrative that concentrates attention on a few aspects of the policy problem, and is inattentive to new information that contradicts the logic of current policy practices (Jones and Baumgartner 2005). Policy narratives become entrenched in policy subsystems whose operation becomes institutionalized as part of the administrative routine over time. Interruptions to these routinized operations - which come in the form of focal event, electoral change, and intensive campaigning - break the subsystemic insulation to new information about problem attributes that have been ignored, triggering dramatic revisions of the way policy problems are narrated.

Conclusion

Attempts to theorize narrative change leave us with three distinct specifications of the microfoundations of the process. What is truly intriguing about the theoretical divergence is that it does not necessarily imply that the validation of any one of these perspectives will absolutely preclude the other two perspectives from being valid as well. While much can be said, for example, about the superiority of behavioural models that account for cognitive biases to models that assume perfect rationality, the two perspectives arrive at essentially the same conclusion about the pattern of narrative change. Similarly, if we confine our attention to the conflict between policy actors competing for control over a certain policy issue, we again observe the same punctuated pattern as a result of the nature of political conflict. In other words, all three of the modelling perspectives are successful in extracting predictive power from the most critical aspects of the process of narrative change, but our appreciation of the overall complexity of the phenomenon does not profit from focusing on these critical aspects in isolation from the system in which they operate. In this case, the pursuit of theoretical parsimony interferes with what is fundamentally curious about the question why our understanding of policy problems changes in the way it does.

A critical question that remains to be explored is whether any one of these perspectives can more accurately capture the complexity of narrative change as an emergent and dynamic social phenomenon. Indeed, each of the three perspectives has something to contribute to a model of narrative change as social emergence. The problem management model stresses the environmental obstacles preventing individuals, assumed to be perfectly rational, from obtaining complete control over narrative change, while theorists of information processing enriches the individual behavioural model by incorporating cognitive biases responsible for friction, inertia, as well as overreaction at both individual and organizational level. Research

on strategic manipulation extends our understanding of the contentious nature of narrative change in the context of agent-to-agent interaction. These theoretical advances provide us with a sound basis to develop a model of social emergence conceived in a self-evolving system where dynamic forces, in Knight's (1921) words, "constantly restores the inequalities which these movements themselves constantly destroy". Narrative change exhibits the same nonlinear properties that have eluded methods founded upon a static imagination of social processes.

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