

**HISTORY MATTERS FOR ORGANIZATIONS:
AN INTEGRATIVE FRAMEWORK
FOR UNDERSTANDING INFLUENCES FROM THE PAST**

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Abstract

We develop a comprehensive framework of how history matters for organizations. We first decompose the past into two distinct stages—*junctions* and *processual periods*. Junctions are relatively short periods when organizations develop structures, routines, and cultures that then have a lasting influence. Processual periods are longer and more stable times when past influence may become strengthened, preserved, or weakened. Combining one junction and one processual period, we develop a typology of six ideal types of historical influence including cohort effect, imprinting, path dependence, inertial decay, path stability, and dissipation. Our integrative framework helps (1) advance existing and extend new theories of the past; (2) enable empirical research on historical processes to draw more convincing conclusions from data; and (3) better inform the practice of managing influences from the past. Our study sets the stage for more cumulative knowledge of how history enduringly matters for organizations.

Keywords: past influence, history, organization and management theory, junction, processual period

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“The more you know about the past, the better prepared you are for the future.”

—Theodore Roosevelt

Many theories have been developed to understand how history enduringly affects organizations. For example, imprinting theory suggests that prominent features in the past (e.g., typically the founding period) have a strong and long-lasting impact (Marquis & Tilcsik, 2013; Stinchcombe, 1965). The path dependence perspective argues that random events early on can have a significant subsequent influence as they are reinforced over time (e.g., David, 1985; Sydow, Schreyögg, & Koch, 2009). Institutional theory also emphasizes the importance of the past in the processes of diffusion, isomorphism, and institutional and organizational change (e.g., Aguilera & Grøgaard, 2019; Thornton & Ocasio, 1999). A fundamental tenet of strategy research is that firms’ prior experiences consistently shape the activities they pursue, which results in persistent heterogeneity (Rumelt, Schendel, & Teece, 1994). And organizational research has also examined evolutionary processes and invoked concepts such as inertia and local search as reasons why past influences endure (Helfat, 1994; Nelson & Winter, 1982).

Despite the rich insights this prior work has produced, there is a lack of a comprehensive framework that connects these diverse perspectives and clarifies and differentiates mechanisms of *how* the past matters, thus limiting the growth of the literature. As many authors have noted, there is a tendency to use distinct theories of the past interchangeably without carefully attending to their distinguishing features (e.g., Jones & Khanna, 2006; Kipping & Üsdiken, 2014; Vergne & Durand, 2010). For example, Sydow et al. (2009: 689)

argued that the idea of path dependence has been over-generalized and used “mostly as a broad label” to characterize lasting effects of the past. Thus, clarifying and integrating across perspectives is important to not only better understand the reasons why existing theories may fall short in explaining certain phenomena of interest, but also how and why in many instances, some influences from the past may decline such that history matters less, if even at all.

We develop a framework to address these issues and further set the stage for a fuller incorporation of history into management research. We start with the idea that organizational structures, routines, and cultures (or “components”) are the intra-organizational carriers of influences from the past. We then decompose the past into two distinct types of phases, *junctions* and *processual periods*, which are the building blocks to systematically understand how the past matters for organizations. *Junctions* are typically short periods during which the underlying components are established and are the formation stage for influences that endure (e.g., Aguilera & Grøgaard, 2019; Capoccia & Kelemen, 2007). We term the longer timespans other than junctions as *processual periods* during which historical influence carried by organizational components may also change in certain identifiable ways. In other words, processual periods comprise an evolutionary stage of historical influence.

Our framework distinguishes two types of junctions and three types of processual periods. We categorize junctions as *directed* and *random* to reflect the type of agency that organizations possess in relation to structure during such periods (e.g., Bromley & Sharkey, 2017; Emirbayer & Mische, 1998; Sewell, 1992). Sensitive periods when organizations come to reflect certain prominent environmental features are an example of directed junctions (Marquis & Tilcsik, 2013; Simsek, Fox, & Heavey, 2015), whereas critical junctions in the path dependence literature when organizational choice involves a

high degree of contingency and chance elements are an example of random junctures (Sydow et al., 2009; Sydow, Schreyögg, & Koch, 2020). Processual periods can *strengthen*, *preserve*, or *weaken* these past influences due to reinforcement, inertia, adaptation, or obsolescence of existing organizational components. We further articulate how junctures and processual periods might give rise to each other.

By combining different types of junctures and processual periods, we develop a typology of six ideal types of historical influence. The typology we develop provides a more fine-grained differentiation and clearer definition of existing historically oriented theories such as cohort effect, imprinting, and path dependence. It also extends new patterns of influences from the past including inertial decay, path stability, and dissipation. For each type of influence, we reveal underlying processes and explicate example phenomena.

Our juncture-processual period decomposition and the resulting typology contribute to existing literature and theories on history and organizations in several ways. First, our framework helps clarify confusion between theories and concepts, thereby enriching existing perspectives and extending new ones. Without a better identification of how history matters, the unique insights from different strands of this vibrant literature might be lost (Jones & Khanna, 2006; Sydow et al., 2009). Second, we propose some methodological considerations to facilitate empirical research on history to draw more convincing conclusions from data. Moreover, we show how our perspective allows historically focused research to better inform policy and practice. Taken together, our research sets the stage for a fuller integration of history into organization and management research and furthers the growth of the field.

DECOMPOSING ORGANIZATIONS' PAST: JUNCTURES AND PROCESSUAL PERIODS

A starting point of our framework is decomposing organizations' past into junctures and processual periods. This categorization of the past bridges two opposing views of

organizational and institutional change across multiple social science disciplines (e.g., Micelotta, Lounsbury, & Greenwood, 2017; Romanelli & Tushman, 1994; Swidler, 1986; Thelen, 2004). While junctures correspond to punctuated models that suggest short periods of rapid change are followed by long static ones, processual periods are consistent with gradualist models that argue that changes happen incrementally and continuously. Our decomposition also synthesizes historically focused organizational theories. For example, theories such as imprinting, path dependence, cohort effect, and the organizational lifecycle model focus on *both* junctures (i.e., formation) and processual periods (i.e., evolution); first-mover (dis)advantage highlights junctures; while many other perspectives (e.g., institutionalization and structural inertia) emphasize processual periods.

In developing this framework, we follow the longstanding research that shows certain organizational components (i.e., structures, routines, and cultures) are the key *intra-organizational carriers of historical influence* (e.g., Aguilera, Dencker, & Yalabik, 2008; Hannan & Freeman, 1984), which is the foundation for understanding junctures and processual periods. Organizational structures define how work activities are controlled and integrated, and they are related to the assignment of tasks, coordination, supervision, and resource allocation, among others (Child, 1972). Organizational routines have been defined as “repetitive, recognizable patterns of interdependent actions carried out by multiple actors” (Feldman & Pentland, 2003: 96) and generally concern how things should be done (Scott, 2003). Unlike organizational structures and routines that are more substantive and formal mechanisms of control, organizational cultures are more symbolic and include informal relations and unwritten rules that may govern behaviors of organizational members, and thus can be seen as informal mechanisms of control (O’Reilly & Chatman, 1996).

These components are typically created by organizations to address demands from the external environment in a reliable and accountable way (Hannan & Freeman, 1984). As such, organizational components become inert and taken for-granted, as they help save cognitive energy, provide effective solutions, resolve potential conflicts, stabilize the external audience's expectation of the quality of the focal organization's products and services, and ensure its conformity to social pressures. Influential people in organizations (e.g., founders and CEOs) might also institute certain components, such as leadership structures (Beckman & Burton, 2008), routines for resource allocation (Hsu & Lim, 2014), and culture (Sarros, Gray, Densten, & Cooper, 2005) to reflect their preferences and background. These components may then endure and thus carry historical influence into the future based on their legitimacy, efficiency, members' vested interests, local search, and other processes (Furst & Cable, 2008; Helfat, 1994; Stinchcombe, 1965).

For simplicity, and because a thorough review of such intra-organizational carriers of historical influence is not our core focus, we elaborate the definition, examples, why and how these carriers channel historical influence, as well as alternative labels for each type in Table A1 in Appendix.

Junctures

Junctures are short spans of time when organizations develop certain components that carry the influence of the past—namely, these periods are when historical influences typically form. The term is related to and synthesizes other similar concepts such as revolutionary changes (Micelotta et al., 2017), eventful times (Clemens, 2015), and punctuation (Romanelli & Tushman, 1994).

We adopt an ideal-typical approach (Weber, 1946) to divide junctures into two categories based on the type of agency that organizations have during such influential periods: directed or random. As we will subsequently detail, organizations might be directed to develop certain

components that carry historical influence due to a lack of alternatives or because these components are seen as desirable or even mandatory (Simsek et al., 2015; Yang & Aldrich, 2017). On the other hand, organizations may develop and devise components due to chance events that involve a large amount of randomness and thus fail to provide clear guidance or mandate.

In addition, junctures can also result from organizational- or environmental-level processes. Processes at the organizational level might be more endogenous and within an organization's control, whereas those at the environmental level are typically considered exogenous. For example, new ventures might grow to the initial public offering (IPO) stage and decide to become publicly traded firms. In contrast, environmental-level processes, such as jolts and changes to the political regime, are typically outside an organizations' control (Kriauciunas & Kale, 2006; Meyer, 1982). We summarized different types of junctures in detail in Table A2 in Appendix.

Directed Junctures

Directed junctures are those when organizational actions might be connected to, and/or significantly influenced by prominent external environmental features during these periods. For example, when the world's second largest chocolate producer Ferrero—known for its hazelnut ingredients—began during World War II, the main confectionary ingredient, cocoa, was not available. The company's choice to use hazelnut—abundant in a nearby town—as a substitute was largely driven by availability at that time and has enduringly shaped the company ever since (Charron, 2020). While on average, in a juncture, organizations are more agentic and structural constraints are loosened (Soifer, 2012; Wadhvani, Suddaby, Mordhorst, & Popp, 2018), certain structural features may still shape and be reflected in organizational components. This is because organizations may (1) lack alternatives to form their components (Marquis &

Tilcsik, 2013) and/or (2) be compelled to institute certain components that are seen as desirable or mandatory (Johnson, 2007).

Organizational-level processes. Existing literature has provided abundant evidence that organizational-level processes—such as founding/founder influence, important organizational transformations (e.g., acquisition and restructuring), and changes of legal status (e.g., going public)—might lead to certain components that in turn carry the influence into future. For instance, on many occasions, new ventures do not have an established record and have scant resources (Stinchcombe, 1965; Yang & Aldrich, 2017). These ventures must then develop certain components to reflect the social and economic conditions at the time, and thus the founding period is a typical example of a directed juncture (Beckman & Burton, 2008). For instance, firms founded in a period of scarcity may develop routines that settle on inferior resources (e.g., less effective supply chains to evade competition; Carroll & Hannan, 2000), which result in a persistent influence on mortality (Swaminathan, 1996).

Relatedly, during the founding period, founders devise certain components for their organizations based on their interpretation of the environment; namely, founders' agency is also related to the broad structural forces (de Cuyper, Clarysse, & Phillips, 2020; Ellis, Aharonson, Drori, & Shapira, 2017). Founders may also organize their ventures based on their own experience, values, and personality, which are in turn a result of their life history and shaped by structural factors (Hambrick & Mason, 1984; Marquis & Qiao, 2020). For example, Hsu and Lim (2014) showed that founders with knowledge in DNA technologies developed routines that allocated significant amounts of resources to this technology.

Second, organizations may experience important transformations (Smith, Grimm, Gannon, & Chen, 1991), such as expansion through acquisitions, contraction via divestitures, and restructuring (Ferriani, Garnsey, & Lorenzoni, 2012; Raynard, Lu, & Jing, 2020). These changes are related to structural features, responses to some institutional pressures, and/or fit

with the economic environment. For instance, Zhang (2021) found that acquisitions might disrupt firms' old structures, break down routines, and shift cultures and thus help reduce gender and racial inequality.

Third, critical changes to organizations' legal status such as an IPO, delisting, and internationalization may prompt firms to move in different directions (Aguilera et al., 2008). These changes may require organizations' compliance through adjusting existing components that carry influence from prior periods. For example, going through an IPO requires firms to conform to publicly traded status, including their relationship with different sets of owners and related governance mechanisms (Cohen & Dean, 2005), information disclosure, and capital outlays (Wu, 2012). Thus, firms usually have to revise their structures by adopting a board of directors with some independent members outside the firm and modifying their routines of resource acquisition and hiring in response to stock market pressures and requirements (Cohen & Dean, 2005).

Environmental-level processes. Prior work has also shown that environmental-level processes—such as institutional change, social movements, and technological revolutions—may lead to major and directed changes in firms (e.g., Thornton & Ocasio, 1999). These critical environmental changes provide relatively clear requirements for organizations and if not instituted, the possibility of failure is high (e.g., Polaroid Corporation failed for not catching up with the digital revolution; Tripsas & Gavetti, 2000).

First, significant institutional changes may require firms to develop specific components (Sarta, Durand, & Vergne, 2021). A well-studied example in the management literature was the movement in the United States toward protecting shareholders, requiring firms to focus more on market value and investors' interests (Useem, 1996). As a result, many firms replaced defined benefit pension plans with

defined contribution pension plans to cut costs and maximize shareholder value at the expense of other stakeholders, such as employees (e.g., Cobb, 2015). Second, social movements tend to require firms to establish and/or change their components (e.g., Hiatt, Sine, & Tolbert, 2009). For instance, social movement activists may force firms to revise their institutionalized programs, policies, and practices regarding the treatment of labor and consumers and thus shape targeted firm behaviors (King & Soule, 2007). Third, radical technological change may also trigger junctures (Dorobantu, Kaul, & Zelner, 2017). For example, the digital revolution forced Kodak to displace its core roll-film business and establish and revise routines for digital photography (Tripsas & Gavetti, 2000). The technological revolution fundamentally shaped Kodak's R&D priorities and business model and strongly affected the company's subsequent performance.

In short, in such junctures, organizational and/or environmental processes might unfreeze organizations—e.g., through different types of mandates or resource availability—such that clear and specific environmental elements can seep through organizational boundaries and then be reflected in different components. Thus, although organizations have some agency, such agency is dependent on and directed by structural elements in the environment (Bromley & Sharkey, 2017).

Random junctures

Organizational agency in junctures might also be random and less dependent on structure. In other words, organizational components could be less wedded to structural features (Vergne, 2013; Vergne & Durand, 2010), as has been traditionally emphasized in the work examining critical junctures (Capoccia & Kelemen, 2007), as well as theories proposing that some past events may simply have been accidents or driven by chance (e.g., path dependence; David, 1985; Vergne & Durand, 2010).

Organizational-level processes. An emerging literature has shown how organizational

processes, particularly *serendipitous events* that involve a large amount of randomness and chance elements, can be responsible for junctures (e.g., Busch, 2022). Specifically, these events might enable a short period of organizational agency and encourage organizations to develop certain components as a response. As such, these processes can lead to a juncture. However, organizational agency in such junctures is less connected to structural features but triggered by the random elements. In other words, because serendipitous events are largely unrelated to structural features or constraints, organizational agency in such junctures is relatively random and less dependent on structure. For example, Pascale (1984) argued that Honda did not enter the American market with a detailed or well-informed plan due to a lack of knowledge. Its initial strategy and structure were in fact driven by an accidental observation that many people were using light motorcycles for personal transportation. Thus, Honda's decision to introduce the 50cc bike was not wedded to structural market features (i.e., due to a lack of informed plan), but rather shaped by an opportunistic observation.

Environmental-level processes. Some environmental-level processes may also involve a large amount of randomness, such as abrupt environmental changes. These unanticipated processes tend to trigger a juncture because organizations have to enact certain components to cope with uncertainty. Typical examples include economic shocks (Chakrabarti, 2015; Klüppel, Pierce, & Snyder, 2018) and natural disasters that cause material damage to firms and require corporate action for disaster relief (Tilcsik & Marquis, 2013). For instance, Mithani (2017) found that although some multinational enterprises increased their philanthropic donations in India in response to a sudden natural disaster in 2001, there were no unequivocal rules for firms to follow. In other words, implications of random events are unknown, and so responses may not be affected by specific structural features.

This set of junctures opens up possibilities for action. For example, serendipitous events are not dictated by the external environment but rather driven by accidental discoveries of certain facts or situations. Environmental processes that involve a large amount of randomness may also fail to provide unequivocal guidance or mandates for organizations, which may give the latter more agency in devising certain components that are less related to structural features.

Processual Periods

We call long periods other than junctures processual periods. The term is consistent with and builds on prior work that considers historical periodization as a long process, such as the *longue durée* (Nelson, 2021), evolutionary (Aldrich & Ruef, 2006; Nelson & Winter, 1982) and institutional approaches (e.g., Aguilera & Grøgaard, 2019; Micelotta et al., 2017). For instance, institutional theorists tend to study how long processes of organizational change unfold and evolutionary scholars focus on the gradual transformation of firms and economy.

We argue that organizational components in these processual periods evolve and the resulting historical influence changes over time. Many situations do not involve an organizational boundary change, a fundamental environmental transformation, or an alteration with respect to significant resources (Smith et al., 1991), thus creating a tendency toward stability in organizations. Firms might engage in what the competitive dynamics literature has described as tactical actions as opposed to strategic ones that take place in a juncture (Chen & Miller, 2012). Examples include routine activities such as price cuts, promotions, store openings and closings, minor product adjustments, and distribution and service improvements. Unlike during junctures when organizations unfreeze themselves (e.g., in sensitive periods or during major environmental changes), in processual periods organizations make smaller adaptations (Sarta et al., 2021; Wells & Ellsworth, 2016).

Processual periods can strengthen and preserve components formed in prior stages

through reinforcement and inertia, or they may weaken historical influence because of adaptation and obsolescence. Since processes for (a) strengthening, (b) preserving, and (c) weakening processual periods at the organizational and environmental levels function in a similar way, we organize the discussion below by these three major categories. This categorization contrasts with that of junctures—that is, while agency in junctures can be directed or random, agency in processual periods is mostly directed. Namely, organizational agency in a processual period typically concerns how structural features—as embodied by organizational components—evolve.

Different types of processual periods have been emphasized in prior historically focused research. For example, the growth stage in organizational lifecycle research is typically a strengthening processual period in which existing organizational components are reinforced for gradual expansion, and the maturity stage corresponds to a preserving processual period in that firms become inert and stable. The decline stage then reflects that existing components have become obsolete and failed to provide effective solutions, and thus firms' performance deteriorates over time (Phelps, Adams, & Bessant, 2007). We summarize the different types of processual periods in detail in Table A3 in the Appendix.

Strengthening Processual Periods. The influence of organizational components established in earlier junctures may grow in processual periods because of reinforcement (Sydow et al., 2009, 2020). Scholars have used a variety of concepts such as increasing returns and positive feedback to describe this phenomenon (e.g., Arthur, 1994; David, 1985). Organizational and/or environmental processes may be responsible for reinforcement.

First, organizations might reinforce their prior components through learning. Learning concerns the accumulation of knowledge from past actions such that organizations become increasingly good at activities pursued in the past (Cohen & Levinthal, 1990). For instance,

existing research has provided rich evidence that firms innovating in one technology might learn how to create a patent in that technology more effectively and thus continue exploring the same area (e.g., Aghion, Dechezleprêtre, Hemous, Martin, & Van Reenen, 2016).

Economies of scale is another example: firms may save more operational costs per unit through enlarging their size and learning by doing. Because of these benefits, firms might further invest in their existing components, forming a reinforcing loop (Arthur, 1994).

A second potential mechanism of reinforcement concerns coordination, which refers to increasing returns as the number of participants who work together in a given area increases (Petermann, Schreyögg, & Fürstenau, 2019). This mechanism suggests how firms' organizing around certain business activities can lead to increasing returns. While the "learning" effect concerns the knowledge that is directly related to the intended activity, coordination suggests that firms accumulate knowledge through increased presence of related activities—i.e., indirect knowledge, such as through accumulating human capital. For instance, because Polaroid made significant profits with its instant film as opposed to camera technology, its subsequent coordinating activities—especially hiring inventors and research scientists with similar expertise—reinforced the instant film business model, which had increasing benefits and led to decreasing costs as the company grew and more people joined.

Third, complementarities, which refers to the synergy from the interaction of two or more separate but interrelated resources or functions (Stieglitz & Heine, 2007), may also contribute to reinforcement. Thus, while coordination may be reflected in synergy *within* a department (e.g., technology team), complementarities concern synergy *between* departments (e.g., technology and marketing teams). For example, Mazda's specialized customer repair facilities and sales team contributed to the success of its novel rotary engine technology, which in turn furthered the firm's development of marketing functions, forming a virtuous feedback loop (Teece, 1988).

Moreover, decision-makers' socio-cognitive processes may also contribute to reinforcement. An example is the escalation of commitment processes: Organizational decision-makers might increase their commitment to inefficient and even defeated courses of action to justify their prior choices and decisions (Brockner, 1992). This is because organizational decision-makers might expect that additional resources will lead to goal attainment, and/or they tend to self-justify prior actions and are not willing to admit failure. This process is reflected in Lockheed Martin's increasing investment in the L-1011 Tri-Star Jet program that accumulated enormous losses despite the fact that numerous analysts had suggested the project would fail (Staw & Ross, 1987).

Environmental-level processes might also contribute to reinforcement. First, organizations may gain positive external feedback and thus reinforce their courses of action. For instance, Kodak received positive customer feedback regarding its roll film business—i.e., increases in sales and profits over the years (Tripsas & Gavetti, 2000). Such positive feedback reinforced Kodak's investment in its roll film business, strengthening the firm's prior routines such that they became locked in. Second, organizations might be subject to adaptive expectations—the larger the number of other organizations that prefer a course of action, the more attractive and desirable that course of action becomes (Sydow et al., 2009). An example of this is the “bandwagon effect”—i.e., as an increasing number of firms work in a certain domain, other firms might also jump on the same “bandwagon” (Abrahamson & Rosenkopf, 1993). Third, connection with others may also lead to a strengthening processual period, and existing studies have shown an R&D network or strategic alliance encourages firms to commit to certain technological routines and strategies to sharpen their advantage for cooperation (e.g., Lewis, 2002). Moreover, firms might enjoy positive technological spillovers from others working on the same technology, thereby increasing investment in R&D and further committing to existing patterns (Aghion et al., 2016).

Preserving Processual Periods. Organizational components established in previous junctures may remain stable due to inertial forces (Hannan & Freeman, 1984; Stinchcombe, 1965). Without the arrival of new junctures, organizational components that carry historical influence may be inert over time. That is, instead of a pattern becoming increasingly strong as previously discussed, it is maintained in an unchanging way. Many theories have discussed inertial forces as a sustaining mechanism of historical influence, such as the ecological perspective (Hannan & Freeman, 1984) and institutional theory (DiMaggio & Powell, 1983). For example, organizations might encounter structural inertia and become rigid and hard to change because of age, size, or operational complexity (Hannan & Freeman, 1984). On the other hand, institutionalization is essentially introducing inertia to the system to enable stability and reduce uncertainty (Boeker, 1989; Ocasio, 1999).

Inertial forces are primarily at the organizational level and suggest that organizations continue pursuing activities as they have in the past. As previously mentioned, organizations may exhibit inertia due to legitimacy embodied by organizational components. Firms may also exhibit a tendency of finding solutions in a closely related area rather than seeking a distant, brand-new one (i.e., local search; Helfat, 1994) and thus fail to change. Moreover, firms may encounter employee resistance to change and thus retain their old components, becoming inert (Furst & Cable, 2008). Furthermore, inertial forces might be reflected in organizations through leaders. Existing studies have shown that decision-makers may be subject to cognitive inertia and thus suffer from a status quo bias: the tendency of committing to the current status rather than exploring new things (e.g., Geletkanycz, 1997). Cognitive inertia may help retain collective memory that codifies past solutions and experiences for present use (Mena, Rintamäki, Fleming, & Spicer, 2016). In addition, an individual's internalized disposition—i.e., a habitus (Swartz, 2008)—is maintained by cognitive inertia such that organizational leaders' early-life experience, values, and personality may

consistently affect current outcomes (Marquis & Qiao, 2020).

Inertia may also be a result of environmental processes, as research has shown that stable environments encourage firms to adopt a stable and inertial structure (Sine, Mitsuhashi, & Kirsch, 2006). In response to stable environments, firms might establish a rigid organizational structure that later prevents changes (Burns & Stalker, 1961). For instance, Lawrence and Lorsch (1967) showed that a plastics firm established a clear hierarchical bureaucracy for manufacturing, which then resisted changes. In other words, stable environments may recursively be responsible for firm inertia.

Weakening Processual Periods. Components formed in prior junctures may also lose their impact in processual periods through organizational and environmental processes. In other words, in weakening processual periods, historical influence dissipates so that eventually, the influence is felt less or possibly not at all. Adaptation, the “intentional decision making undertaken by organizational members... (with the aim to)...reduce the distance between an organization and its economic and institutional environments,” is one primary process at the organizational level through which a historical influence becomes weakened (Sarta et al., 2021: 43). Namely, outdated components that preserve negative historical influences—e.g., due to a misfit with the contemporary environment (Burgelman, 2002)—could be attenuated through initiated changes. For example, Hubert Joly used a variety of tactics—i.e., allocating more space for higher-growth products, increasing staff levels on Saturdays, improving the firms’ website, and providing more training to employees—to address Best Buy’s flagging sales and increasing competition from online stores such as Amazon and other local stores. Joly’s revisions of Best Buy’s routines resulted in a weakening processual period that mitigated liabilities of the past (Wells & Ellsworth, 2016). Another example of adaptation is through CEO turnover. Andrew Grove became CEO of Intel in 1987 and

initiated a series of changes such as centralizing the decision-making structure and dropping the firm's iconic dynamic random-access memory chips business it had built since the founding period, and these changes facilitated a turnaround of Intel's business operations and weakened the influence of the previous structure (Burgelman, 2002).

Decay may also contribute to a weakening processual period, and it typically occurs as organizations age (Zheng, Liu, & George, 2010). Aldrich and Ruef (2006) suggested that historical influence may decline by processes inherently associated with duration of existence, such as a natural decay of memory because of employee turnover or loss of record (Madsen, 2009). Organizational components formed in earlier junctures may also unravel through strategic forgetting processes (Mena et al., 2016). For instance, prior work has shown that firms may manipulate certain memories through omission and neutralization of contradictions and controversies (Anteby & Molnár, 2012; de Holan & Phillips, 2004). Likewise, CEOs' enthusiasm wanes with age and/or tenure, and thus they become less engaged in organizational decision-making (Hambrick & Fukutomi, 1991).

At the environmental level, weakening processual periods are typically driven by gradual changes that make firms' existing components obsolete; therefore, historical influence tends to decline. Specifically, obsolescence may be technical—e.g., firms may fail to provide satisfactory technical solutions to problems they are facing since their structures do not fit with the evolving environment. For example, Boeker (1989) showed that founding influence on firms gradually declined as existing structures and routines become less effective in dealing with a new environment. Alternatively, obsolescence may concern political ideology and belief of firms and their leaders. Along these lines, Marquis and Qiao (2020) showed that Chinese entrepreneurs were initially antagonistic to the West and capitalism due to their early communist indoctrination. However, China's communist government gradually encouraged private firms to embrace foreign capitalists and internationalize. These entrepreneurs changed

their stance over time, and the negative influence of their past indoctrination on international expansion became weaker.

Temporal Boundaries between Junctures and Processual Periods

We can identify a set of conditions that mark the duration of a juncture. At the start, these conditions change the underlying context to increase agency and loosen structural constraints (Soifer, 2012), opening the possibility that new elements, either internal or external to organizations, can be reflected as enduring organizational components. Thus, the beginning of a juncture can be seen as a potential turning point “at which the interlocked networks of relation that preserve stability come unglued and the (normal) perpetual change of social life takes over” (Abbott, 2001: 259).

We argue that nascency or newness (Lippmann & Aldrich, 2016), uncertainty (Chakrabarti, 2015), and mandatory change (e.g., going public; Wu, 2012) may trigger a juncture. For instance, new firms might lack routines to govern, coordinate, and motivate members and thus enact such organizational components (e.g., the liability of newness hypothesis; Stinchcombe, 1965; Yang & Aldrich, 2017). Facing uncertain environments, such as an economic shock and natural disaster, firms must establish certain structures to stabilize people’s expectations of their performance (Geroski, Mata, & Portugal, 2010). Important transformations can also entail mandatory structural changes in firms, such as an IPO that requires firms to form a board of directors (Cohen & Dean, 2005; Pollock & Rindova, 2003).

A juncture comes to an end and a processual period begins after organizational components are built such that firms start operating in a more stable and settled way. For example, Marquis and Huang (2010) showed that in response to the less-restrictive statewide branching regulations, banks such as Bank of America developed a more centralized management-reporting system and hierarchy, as well as transaction-routine

reporting between headquarters and branches. After these components were quickly standardized and circulated as best practices, the founding juncture ended.

In addition to the organizational and environmental processes that lead to junctures, the accumulation of events during processual periods may also result in junctures. In processual periods, the small, incremental evolution of historical influences can at times lead to a punctuated change (e.g., Mahoney & Thelen, 2009; Thelen, 1999, 2004) or tipping point that leads to a juncture in an organization's lifecycle (i.e., Phelps et al., 2007). A typical example is the positive feedback that many new ventures obtain—young firms grow in their sales, total assets, number of employees, and so on, which later may prompt them to acquire other firms to strengthen their market position (Robinson, 1999) and/or go through the IPO process to become publicly traded firms (Chen, Zou, & Wang, 2009; McDougall & Oviatt, 1996). In this situation, a strengthening processual period (i.e., positive feedback) over time triggers a juncture (e.g., an M&A or IPO). Alternatively, firms might suffer from negative events and declining performance, and then divest certain assets (e.g., subsidiaries and business lines; Duhaime & Grant, 1984; Montgomery & Thomas, 1988); thus, a weakening processual period (i.e., bad performance) incrementally and cumulatively leads to a juncture (i.e., divestment). Overall, quantitative effects accumulated in processual periods might eventually lead to a qualitative one in junctures.

IDENTIFYING SIX IDEAL TYPES OF HISTORICAL INFLUENCE

Based on our decomposition of an organization's past, we combine one type of juncture (directed versus random) and one type of processual period (strengthening, preserving, or weakening) and derive a typology of six ideal types of historical influences. We illustrate them with example phenomena. The typology, summarized in Table 1, not only connects with existing theories of the past, such as cohort effect, imprinting, and path dependence, but also extends new ones such as path stability and those that highlight the decline of historical influence, including inertial decay and dissipation.

=====**Insert Table 1 about here**=====

Cohort Effect

Organizations experiencing a directed juncture and a strengthening processual period exhibit a cohort effect, which refers to “a high degree of similarity in characteristics and outcomes within an aggregate of actors sharing a similar origin and subsequent experiences” (Marquis & Tilcsik, 2013: 206). Organizations founded in similar periods are shaped by common early environments, such as institutional and economic conditions, and likely identify more closely with each other. Namely, characteristics during a juncture may help shape a common identity. These organizations also have similar shared experiences in subsequent strengthening processual periods, which further reinforces their common identity (Kasbekar, 2020). In this way, a cohort comes into being, exhibiting a uniformity of behavior and strategy within the same aggregate of organizations (Rosow, 1978). Likewise, cohorts of individuals entering the firm at the same time (juncture) develop similar problem-solving approaches and client interactions (Hambrick & Mason, 1984; Tilcsik, 2014). As time goes by, the shared events in processual periods then reinforce their cohort identity, making them more closely identified.

The general process for identifying a cohort effect is first examining whether the historical influence can be traced back to an organization’s directed juncture when certain components were established (Stinchcombe, 1965). Components developed and institutionalized in such a juncture tend to be reinforced by processes in the subsequent processual period, and the resulting historical influence becomes increasingly influential. In this way, the processes by which cohorts form can also be thought of as “imprinting amplification,” namely, an initial imprint is reinforced and so strengthens over time, creating the defining characteristic of a cohort—members’ strong similarity and identification is a result of both common initial and common subsequent experiences.

Many organizations and aggregates of organizations exhibit a cohort effect (e.g.,

Aldrich & Ruef, 2006; Madsen & Walker, 2017; Nelson & Winter, 1982). For example, state bar associations that uniformly require few resources for establishment are based on voluntary work (Halliday, Powell, & Granfors, 1987). As such, cohort characteristics first resulted from resource scarcity in the founding environment. Elite lawyers volunteered to establish grassroots organizations to maintain professional standards and develop a service culture to maintain the quality of legal practice. As professional standards and service culture became widely accepted, different organizations learned from each other—which reinforced the industry standard (i.e., experiencing a strengthening processual period)—and successfully resulted in a collective identity of this organizational cohort. Similarly, photographic film companies developed their organizational structures and strategies to allocate significant resources to their successful roll film businesses (Tripsas & Gavetti, 2000). Positive feedback from customers encouraged further investment and thus reinforced these firms' commitment, producing a cohort identity for roll film firms such as Kodak (Munir & Phillips, 2005).

Therefore, we propose:

- *Claim 1: Organizations experiencing a directed juncture and a strengthening processual period exhibit a cohort effect such that the historical influence resulting from prominent features of the juncture increases over time, and so the organizations demonstrate an especially high level of similarity of behaviors and outcomes within the same group (i.e., a “cohort”).*

Imprinting

Imprinting combines a directed juncture and a preserving processual period. Stinchcombe (1965) introduced the concept of imprinting to the social sciences, arguing that organizations reflected the social technology at the founding period, and that these founding characteristics tended to endure. Marquis and Tilcsik (2013: 201) reviewed and synthesized the imprinting literature, defining imprinting as a process wherein focal entities develop characteristics

reflecting “prominent features of the environment” (i.e., imprints) that “continue to persist despite significant environmental changes in subsequent periods” when entities are more susceptible (e.g., founding for organizations).

Like the cohort effect, imprinting also suggests that organizations develop and institutionalize structures, routines, and cultures that reflect prominent characteristics during a juncture (Marquis & Tilcsik, 2013). Organizations are then locked into these components, which in turn leave a lasting influence (Sydow et al., 2020). For instance, during the founding stage, organizations might develop and institutionalize structures to address an industry environment (Baron, Hannan, & Burton, 1999) and alleviate uncertainty (Beckman & Burton, 2008), generate routines for expansion (Marquis & Huang, 2010) and resource acquisition (Swaminathan, 1996), or institute a culture for external competition and employee socialization and motivation (Sarros et al., 2005). These institutionalized components persist for a long period of time (Johnson, 2007), thus reliably shaping organizational behaviors.

Yet in contrast to reinforcement and thus increasing historical influence in processual periods that result in identifiable cohort effects, imprinting posits inertia as the underlying process such that the past exerts a subsequent stable influence (a preserving processual period). For example, King Louis XIV established the organizational structure of the Paris Opera based on a joint sponsorship by the French government and the private box office, which then persisted over more than three centuries, including during the French Revolution in 1789, the two world wars, and other social upheavals (Johnson, 2007). Moreover, the cohort effect is commonly defined with reference to other organizations as the aggregate experiences the same juncture and a subsequent specific set of strengthening processes. Namely, cohort members constitute a unique group shaped by an accumulation of these experiences. In contrast, imprinting is commonly defined with

respect to the focal organization and suggests how its components reflect the focal juncture.

The imprinting perspective has been widely applied and incorporated into institutional theory (e.g., Kasbekar, 2020), organizational ecology (Carroll & Hannan, 2000), and the entrepreneurship literature (e.g., Ellis et al., 2017). For example, socialist market environments in Eastern European countries stipulated governmental command as the main legitimate approach, producing an inertial routine of operations for firms based on the authority's plan (Kogut & Zander, 2000; Qiao, 2022). Hence, we propose:

- *Claim 2: Organizations experiencing a directed juncture and a preserving processual period exhibit imprinting such that the historical influence resulting from prominent features of the juncture remains stable over time.*

Path Dependence

A random juncture and a strengthening processual period result in path dependence. Path dependence has been widely studied in economics (Arthur, 1994; David, 1985), political science (Capoccia & Kelemen, 2007; Pierson, 2000; Soifer, 2012), and sociology (Goldstone, 1998; Mahoney, 2000). David (1985: 332, emphasis in original) stated that, “A *path-dependent* sequence of economic changes is one of which important influences upon the eventual outcome can be exerted by temporally remote events, including happenings dominated by chance elements rather than systematic forces.” In short, path dependence suggests that chance events involving a large amount of randomness in the past can have a strong and even deterministic influence due to reinforcement (Arthur, 1994).

Unlike the cohort effect, path dependence begins with a random juncture where a high level of contingency exists (Sydow et al., 2009; Vergne & Durand, 2010). In other words, in some cases, characteristics of a juncture might not dictate components that organizations develop. For example, in the late 1950s to early 1960s, the U.S. space agency NASA had at least two competing and equally viable technologies for lunar exploration—Earth-orbit

rendezvous (EOR) and lunar-orbit rendezvous (LOR)—in reaction to the Soviet Union’s launch of Sputnik, world’s first artificial satellite (Bruggeman, 2002). There was significant debate within NASA over which technique to choose, and scholars have argued that the decision to use LOR for the Apollo Program was random and made only to quell internal debate (Cortright, 2019).

Yet consistent with the cohort effect as previously defined, path dependence also relies heavily on reinforcement (Sydow et al., 2009), which amplifies historical influence such that these random past events play an increasingly significant role (Mahoney, 2000). For instance, the success of the Apollo missions reinforced the decision of using LOR (a strengthening processual period), making it the only legitimate routine that NASA would subsequently follow, as well as spurring further investment in this approach and related structures (Bruggeman, 2002). Similarly, positive customer feedback encouraged Pfizer’s continuous investment to strengthen its routines for the accidental discovery of Viagra (de Rond & Thietart, 2007). Thus, we have:

- *Claim 3: Organizations experiencing a random juncture and a strengthening processual period exhibit path dependence such that the historical influence resulting from the randomness of a juncture increases over time.*

In addition to connecting and differentiating existing historically oriented theories such as the cohort effect, imprinting, and path dependence, our typology also unveils new approaches to understanding how and why influences from the past may (or may not) last. We illustrate three additional types of past influence that are less studied in the existing literature: inertial decay, path stability, and dissipation. Inertial decay and dissipation both highlight how the past may gradually lose its impact—namely, how history matters less for organizations. Our typology thus aims to better demarcate the boundaries of the notion that “history matters” and help future researchers gain a fuller

understanding of how and why it does so.

Inertial Decay

We use inertial decay to describe the phenomenon that organizations might develop their components in a directed juncture. However, these components might be eroded, and their influence becomes weaker over time. For example, Shinkle and Kriauciunas (2012) showed that the influence of socialist institutions that mandated government planning during firms' founding stage led to a lack of market-oriented competitive aspirations (i.e., a directed juncture); however, the influence declined due to these firms' adaptation of existing routines to the new market economy (i.e., a weakening processual period).

Thus, unlike the cohort effect or imprinting, inertial decay highlights the decline of historical influence over time. Adaptation may contribute to the decay of the components formed in prior junctures (Haveman, 1993). For instance, the large demand for cars in the early twentieth century—a directed juncture—led Ford to develop a business model of mass production of the relatively uniform Model T. But after the Model T sales flagged, Henry Ford revised the production and assembly line for flexible mass production that allowed the system to react in case of changes. The business model also accommodated cosmetic customization for consumers, leading to the Model A (Arthur, 1994). In other words, the historical influence resulting from the prominent feature of a past juncture—i.e., the sudden increase in demand for cars—declined due to Ford's adaptation. Institutionalized components may also erode due to obsolescence, and modern counterparts more suitable for the new environment may emerge as replacements (Ocasio & Kim, 1999). For example, entrepreneurs' internalized communist beliefs due to intense government indoctrination resulted in firms' routines of evading foreign capital or markets. However, entrepreneurs adapted these routines after the government propagated for globalization (Marquis & Qiao, 2020). Thus, we propose:

- *Claim 4: Organizations experiencing a directed juncture and a weakening processual period exhibit inertial decay such that the historical influence resulting from prominent features of a juncture declines over time.*

Path Stability

We use path stability to describe the historical pattern that combines a random juncture and a preserving processual period. Hathaway (2000) suggested a new pattern of historical influence in which long periods of stability follow a random event and Page (2006) and Mosher (2014) both proposed a similar formulation.

Like path dependence, path stability also indicates that chance events involving a large amount of randomness constitute formation of an historical influence (Vergne & Durand, 2010), such as temporary economic shocks in labor demand (Blanchard & Summers, 1986). Existing literature has shown that firms develop certain components in response to temporal economic shocks and natural disasters that may later have a lasting influence (Klüppel et al., 2018).

However, different from reinforcement in the subsequent evolution of path dependence, path stability posits a preserving processual period. In other words, certain inertial forces may result in a persistent influence from the past (Mahoney, 2000). For instance, Mithani (2017) showed that natural disasters in India surprised many multinational firms and resulted in them developing routines for philanthropic donation. These routines were then maintained. The natural disaster constituted a random juncture that enabled the multinationals to choose the level of corporate giving. Inertia then preserved these firms' routines, which maintained a persistent level of philanthropic donation years after the disaster.

Prior work has provided some evidence for such historical influence. For example, Blanchard and Summers (1986: 16) showed evidence for the hysteresis hypothesis,

suggesting that “temporary shocks can have a permanent effect on the level of employment” in firms that develop routines for employee wages from such an event. Existing employees in these firms then maintain an inertial wage routine that sets a high wage, which thus maintains a low level of employment years after the shock. Therefore, we have:

- *Claim 5: Organizations experiencing a random juncture and a preserving processual period exhibit path stability such that the historical influence resulting from randomness of the juncture remains stable over time.*

Dissipation

In addition to reinforcement (path dependence) and preservation (path stability), components developed in a random juncture might be weakened over time. We call this type of historical influence dissipation. The term was first used by Thomson (1852) to describe a situation in which the effects of forces in junctures die down quickly. The concept has also been applied in the energy and computational physics literatures. Like a wave that loses amplitude over time, influences from the past may dissipate and thus cause little present impact. Mosher (2014: 2) urged scholars to investigate such historical influence “where the impact of the past decays away/declines as it recedes into the past.”

Similar to path dependence and path stability, dissipation also starts with a random juncture. As such, shocks, chance events, or possible accidents with a large amount of randomness in the juncture may contribute to the past influence. Yet contrary to these two perspectives, dissipation suggests that over time, historical influence might die down in the processual period that follows (Mosher, 2014; Page, 2006).

Not surprisingly, dissipation has received less attention in management and organization studies, although it may also account for empirical findings whereby some chance effects or random events fade away. For example, Chakrabarti (2015) showed that firms responded to the unanticipated Asian Economic Shock in 1997 by changing their routines for growth and

expansion (i.e., these firms experienced a random juncture that was triggered by the temporary economic shock). However, the presence of developed external institutions might have weakened firms' routines put in place as a response to the shock (a weakening processual period). Thus, many firms quickly resumed their growth and expansion strategies before the Shock. Thus, we propose:

- *Claim 6: Organizations experiencing a random juncture and a weakening processual period exhibit dissipation such that the historical influence resulting from randomness of a juncture declines over time.*

IMPLICATIONS OF THE JUNCTURE-PROCESSUAL PERIOD

DECOMPOSITION AND TYPOLOGY

Building on our juncture-processual period decomposition and typology of six different types of historical influence, below we discuss how these ideas: (1) advance theories on how and why history matters for organizations, (2) facilitate more convincing conclusions to be drawn from empirical research, and (3) shed light on how organizational decision-makers can manage the past more effectively.

Implications for Advancing Theory

Theorizing the formation of historical influence (i.e., junctures) and considering varying types of junctures and processual periods helps advance different theories of the past and identifies patterns of historical influence that are not yet recognized in the literature.

Formation of Historical Influence

Understanding the formation of historical influence has been a central focus of many organizational theories, such as imprinting, organizational lifecycle model, and path dependence. Our framework facilitates the examination of properties of junctures and thus provides a clearer and richer theorization of the formation of historical influence. For example, there has been confusion between different *past*-dependent perspectives

that are commonly invoked in the literature on history and organizations. As our typology shows, the cohort effect emphasizes both structural features in the initial juncture and the self-reinforcing processes in the subsequent strengthening processual period; imprinting theory focuses on the importance of structural elements of the starting junctures; while path dependence highlights reinforcement in the subsequent strengthening processual period.

The lack of conceptual clarity between these different perspectives has significantly hampered the literature. For instance, as Vergne and Durand (2010) have also discussed, some prior studies on historical influence have erroneously theorized directed junctures as a part of path-dependent processes, and they called for showing randomness of a juncture as the essential evidence if researchers are to identify a pattern as path dependent. Our decomposition and resulting typology thus help clarify this longstanding confusion to enable a fuller and better-identified incorporation of history into management research (Kipping & Üsdiken, 2014; Vergne & Durand, 2010).

Second, our elaboration of junctures might provide a more systematic way to synthesize existing insights in institutional theory regarding *why* some institutional changes in the past may have enduring influence. We argue that major institutional changes such as social movements and replacement of political regimes may require organizations to develop and revise components and thus constitute a juncture. Alternatively, some changes are more incremental, such as legislation that continues existing trends, and thus may not consolidate to form a juncture (Micelotta et al., 2017). This explains why many organizations may continue to reflect requirements of certain major institutional changes from the past (Bromley & Sharkey, 2017), such as how the periodization of institutional environments in the United States gave rise to CEOs with a production, sales, and finance background in large firms (Fligstein, 1990) and editors with a professional or market orientation in publishing (Thornton & Ocasio, 1999).

Third, considering junctures more explicitly may extend the organizational lifecycle model. The original elaboration of the model proposes that organizations likely experience stages from birth to growth, maturity, revitalization, and finally decline (e.g., Quinn &

Cameron, 1983). However, this perspective has been criticized for proposing a linear and deterministic sequence of different stages (Phelps et al., 2007). A notable example that counters this traditional formulation is Intel (Burgelman, 2002). Based on the original organizational lifecycle model, the company reached a maturity stage after becoming the dominant producer of dynamic random-access memory (DRAM) chips in the early 1980s and then entered the declining stage with decreased profits due to Japanese competitors. However, Intel was revitalized through restructuring—dropping its (at the time) well-known DRAM business and focusing instead on microprocessors—and became profitable again. By the end of the last century, Intel declined again due to rivalry and litigation from Advanced Micro Devices (AMD) and was revitalized once more via restructuring to focus on core processors and the chipset business. This sequence contrasts with the original lifecycle model, which suggests that revitalization precedes rather than succeeds decline. Our decomposition provides one way to enrich the understanding of such historical processes: birth and tipping points (e.g., revitalization) are junctures, while growth, maturity, and decline are processual periods. Importantly, different junctures may occur (and re-occur) in varying temporal orders.

Moreover, examining junctures over time also enriches the existing imprinting literature that has mostly focused on the founding stage as the key sensitive period, which recent reviews have noted as a limitation (Marquis & Tilcsik, 2013; Simsek et al., 2015). Different junctures can occur over time, and they may interact to provide cumulative effects. For instance, the study of U.S. banks by Marquis and Huang (2010) illustrated the value of considering junctures beyond founding, as well as later junctures' interaction with the founding stage. The authors showed that during the founding stage, institutional conditions—e.g., regulations on interstate expansion, transportation infrastructure, and the presence of political interest groups—shaped banks' initial structure of branch management and routines for dispersed growth. Organizational structures and routines in turn preserved banks' imprinted capabilities to manage and coordinate geographically dispersed locations for decades (a processual period). After the

arrival of a new juncture—an institutional change that allowed interstate banking in the late 1970s—such imprinted capabilities were transformed into acquisition capabilities. Our understanding of bank behavior would have been incomplete if this research had only focused on the founding period. Examining the interaction of multiple junctures also contributes to imprinting theory by showing that the persistence of past influence does not imply permanence (Marquis & Tilcsik, 2013).

Furthermore, variations in the relationship between structure and agency in junctures may shed light on the concept of *exaptation* (Garud, Gehman, & Giuliani, 2018). The concept describes how “something initially evolved for other reasons (for example, owing to design constraints) or for no identifiable reason at all...[is] later co-opted for a new role” (Dew, Sarasvathy, & Venkataraman, 2004: 73). Organizational scholars have used it to describe the phenomenon in which many technologies and organizational processes that initially had a specific function later came to be used for a different function (Garud et al., 2018). For instance, the CD-ROM was designed to record and replay sound without physical contact between parts, but researchers later realized that it could hold large quantities of data and thus repurposed this technology as a data storage medium for computers (Dew et al., 2004). Our framework adds to the debate in the exaptation literature regarding serendipity and inevitability in this process (Andriani & Cohen, 2013), suggesting that agency in a juncture might exhibit varying levels of dependence and that directedness and randomness exist on a continuum: While many serendipitous discoveries are less wedded to their structural features, they might not be totally random either. For instance, while the invention of the CD-ROM was attributed to the serendipitous finding that a more promising usage concerned data storage (randomness), it was still based on the original applications to play and retrieve music (a juncture directed by structure).

Variations and Combinations of Junctures and Processual Periods

For the sake of simplicity and to serve as a starting point to build more nuanced and complex theoretical insights into past influences, our ideal-typical framework only considers one juncture and one processual period. However, as we have foreshadowed, in reality there can be different variations and combinations of junctures and processual periods over time. We next discuss how these variations may contribute to advancing historically oriented theories.

Junctures. First, although we have described how junctures are triggered mainly by single events, in reality multiple types of events might jointly be responsible for the occurrence of junctures and compete for influence. For example, natural disasters and economic shocks may combine with organizational founding (Geroski et al., 2010), and thus organizational components may both reflect founding characteristics and randomness. Meanwhile, sensitive periods and environmental processes may also jointly result in junctures (de Cuyper et al., 2020). To illustrate this, Raynard et al. (2020) showed that market-oriented economic reform in China triggered restructuring of Turbo, a state-owned enterprise, such that the event (i.e., the institutional change) and the sensitive period (i.e., restructuring) jointly led to a juncture.

Second, while we have identified organizational structures, routines, and cultures together as the components responsible for past influences, it is also possible that the *scope* of historical influence varies such that not all components are affected in the same way and/or have the same effect (Micelotta et al., 2017). For example, a firm's structure is especially affected by IPO requirements (e.g., the mandatory establishment of a board of directors; Cohen & Dean, 2005), while in emerging economies a firm's routines might be more influenced by market-oriented reform (with the old one stipulating operations based on government planning; Kogut & Zander, 2000). Thus, triggers for different junctures may vary depending on the different components that carry historical influence.

Third and relatedly, typical triggers of new junctures, such as technological revolutions, might fail to generate junctures under certain circumstances, such as for

firms with entrenched processes. For example, when facing the digital revolution in the roll film industry, Polaroid Corporation, the iconic producer of instant cameras, failed to revise components that had been established to reflect founder Edwin Land's knowledge and preferences during the founding period: the razor-blade model. Since the firm's founding, while selling cameras at a low price, the company's main revenue source was sales of its instant Polaroid film. Land's knowledge and preferences defined the firm's legitimacy, which prevented substantial subsequent revisions, and this model proved to be unsustainable when digital filming became increasingly popular and the company went bankrupt (Tripsas & Gavetti, 2000). In this instance, the founding juncture sowed the seed for future failure. Thus, it is interesting to study failed triggers of junctures empirically, their remedies, and specific mechanisms for the failure.

Finally, although many triggers of junctures might not span long periods, such as founding, acquisitions, and natural disasters, some are not as abrupt. Market-oriented reforms in emerging economies are one such example. While some countries such as Chile and the former Soviet Union adopted abrupt and quick "shock therapy" for market transition, many other emerging economies such as China and Vietnam implemented a gradual approach for liberalization and allowing free-market mechanisms to increasingly allocate resources over time (Marquis & Qiao, 2022). In these economies, the juncture created by market-oriented reforms can last an extended period, which leads to the following general questions: When can junctures triggered by such institutional change be considered to have ended? Will such institutional change lead to a series of consecutive junctures, or a long juncture separated by several short processual periods? These are some questions that our framework sets the stage for future research to examine.

Processual periods. Considering variants of processual periods may also advance historically oriented theories. First, processual periods might not be monotonic and negative feedback events may interchange with positive ones (Page, 2006). The coexistence of positive and negative feedback may drive unique historical patterns. For instance, path-

dependent processes may be sensitive to negative feedback in its early stage, and scholars have shown that such events may disrupt the original path and initiate a new one (Bednar, Page, & Toole, 2012). Conversely, firms may ignore negative feedback while attending to positive feedback. This might be because decision-makers tend to selectively attend to positive feedback, failing to account for the opposite (Ford & Ford, 1994; Miller, 1990). In this way, factors responsible for firms' advantage may breed disadvantage in the future because of inadequate attention to issues that accumulate and finally cause problems, such as Kodak's experience of suffering significant losses for paying inadequate attention to digitalization (Munir & Phillips, 2005).

Second, how quickly organizational components change and the patterns within a processual period are also meaningful questions to explore. In contrast to junctures, organizational components on average tend to evolve relatively slowly in processual periods. However, differences can exist across components, industries, and regions regarding the pace of change, and these differences may vary over time. In the United States, typical fast-changing industries include automotive from the late nineteenth century to early twentieth century (Rao, 1994), personal computers in the 1980s to 1990s (Bresnahan, Stern, & Trajtenberg, 1997), the internet in the 1990s to 2000s (Anokhin, Morgan, Jones Christensen, & Schulze, 2023), and artificial intelligence more recently. As a result, future research can examine how fast a processual period evolves, in what industries, regions, and time periods, and what the patterns of such evolutions look like, for example, if they are accelerated, linear, decelerated, or a combination.

Third, our framework also directs attention to understanding the necessity of identifying different types of processual periods, especially a strengthening vs. a preserving one. For example, a fundamental issue in strategy is the enduring heterogeneity among firms (Rumelt et al., 1994). Strategy research typically attributes this phenomenon to path dependence, arguing that firms tend to search locally and thus

exhibit an inertial tendency to pursue activities similar to those undertaken in the past (i.e., experiencing a preserving processual period). However, as our framework indicates, a preserving processual period is not typically considered part of path-dependent processes (Arthur, 1994; Sydow et al., 2009), and thus in these situations, using the term “path dependence” overgeneralizes the term leading to less-precise explanations. Conversely, Huggins, Stuetzer, Obschonka, and Thompson (2021) stated that reinforcement due to community practices was responsible for the lasting imprinting effect of industrialization on the contemporary cohesion of U.K. communities. However, our framework, which more clearly differentiates types of influences from the past, suggests that reinforcement is responsible for processes such as path dependence, not imprinting (Marquis & Tilcsik, 2013). These examples suggest that attending to the different types of processual periods can help researchers pinpoint more precisely the boundaries of different historically oriented theories.

Furthermore, it is also possible that different organizational components exhibit varying evolutionary patterns in response to particular events in the same processual period. For example, positive customer feedback tended to reinforce Kodak’s roll-film routines rather than its corporate structure or culture, and Andrew Grove revised Intel’s structure for more centralized decision-making in the late 1980s but retained the firm’s routines for innovation and culture. Thus, is there a mapping of certain organizational components onto respective processual periods so that future researchers may be able to more systematically unpack varying *trajectories* of historical influence over time?

Combinations of junctures and processual periods. Although in our ideal-typical framework, junctures and processual periods are mutually exclusive, they might exist at the same time for an organization, especially considering the possibility that the focal organization might exhibit multiple trajectories of historical influence. What is the relationship between the variety of organizational components (i.e., structures, routines, and

cultures) at particular times? Are they more independent of each other, such as those in large conglomerates with multiple unrelated business lines (e.g., Michelin’s hospitality and tire businesses and many Korean chaebols like Samsung), or are they interrelated, for example, in firms with more focused businesses?

In addition, combinations of multiple junctures and processual periods in varying ways may also advance new historically oriented theories. For simplicity, our typology contains historical patterns that each combine one juncture and one processual period. However, as our abovementioned elaboration of imprinting theory suggests, understanding how organizations experience multiple junctures over time may produce new theories. For example, firms might establish structures and routines during initial junctures. These firms then go through a preserving processual period due to inertial tendencies until a new juncture arrives. The new juncture likely poses a novel and different set of expectations and requirements for the firms, which respond by changing their structures and routines (Beckman & Burton, 2008; Marquis & Huang, 2010). Continuing in this fashion, firms are chronologically affected by junctures. In other words, there may be a *sedimentation* of effects in prior junctures (de Cuyper et al., 2020). This process is akin to layering in the institutional change literature, which “involves the grafting of new elements onto an otherwise stable institutional framework” (Thelen, 2004: 36).

Implications for Empirical Examination of Historical Processes

Our framework can also be extended methodologically to help researchers identify these historical patterns with quantitative data. Figure 1 presents a conceptual flow of our typology and a series of steps we identify to distinguish different types of historical influence.

=====Insert Figure 1 about here=====

We begin by studying a specific past period of an organization, typically starting

from a juncture, such as a sensitive period (e.g., founding or IPO), a serendipitous event (e.g., accidental discovery of certain products), and environmental processes (e.g., institutional change, massive social movements, technological revolutions, economic shocks, and natural disasters). We set $t = 0$ for the beginning year of the juncture and analyze the following regression model for a specific organization i at a particular time t :

$$y_{it} = \beta \overbrace{\text{structural elements at time } 0_i}^{\text{test for juncture}} + \overbrace{\gamma y_{i,t-1}}^{\text{test for processual period}} + \text{error term.} \quad (1)$$

We focus on the two elements of this model that correspond to our juncture-processual period decomposition: (1) the β coefficient of structural elements at the beginning of this specific period to examine the properties of junctures, and (2) γ that indicates the relationship between the past and current outcomes to determine the type of processual periods. Presented in this way, one can more clearly see that ignoring either the juncture (i.e., the genesis stage) or the processual period (i.e., the subsequent evolution) can lead to problematic conclusions due to omitted variable(s).

Step 1: Determining whether the structural elements of the juncture have a significant and strong influence (β). This determination can be achieved by examining the statistical significance and effect sizes of structural features during the junctures—institutional, economic, and founder characteristics—on the outcome variable (Box 1).

While interpretation of the magnitude of effect size is determined by the research question at hand (Leppink, O'Sullivan, & Winston, 2016), scholars have provided various ways to quantify them. For example, Fey, Hu, and Delios (2023) summarized commonly used effect-size measures based on the existing literature, suggesting that standardized coefficients in regression models that are below 0.2 and above 0.5 can be deemed as small and large effects respectively (see also Acock, 2014: 272). A large effect of structural elements on the outcome suggests that the juncture is directed; otherwise, it is random. However, we want to emphasize that these standards and the specific types of structural elements to examine

should be catered to research questions, and there are no hard and fast rules of thumb.

If the effect is large, we then proceed to Box 2; otherwise, we go to Box 3.

Step 2: Determining whether the processual period is strengthening, preserving, or weakening by examining γ . Drawing on studies that have examined the degree of self-reinforcement (e.g., Aghion et al., 2016; Fotopoulos, 2014), we then propose that the relationship between the lagged dependent variable ($y_{i,t-1}$ or some combinations of the past outcomes) and its current counterpart indicates how later processual periods might shape organizational components formed in the juncture and thus can be used to detect types of processual periods. Specifically, this relationship concerns how much the last-period outcome is carried over into the present one (Madsen & Walker, 2017), and thus is suggestive of the evolutionary patterns of the historical influence. By solving the model recursively (i.e., replacing y_{it-1} with *structural elements at time* $0_i + \gamma y_{i,t-2} + \text{error term}$), prior work has shown that a positive relationship suggests that the historical influence becomes increasingly strong—growing at the speed of $(1 + \gamma)$ in each period—and thus the processual period is strengthening. A zero relationship (i.e., $\gamma = 0$) means that the historical influence stays stable and thus the processual period is preserving, and a negative relationship indicates that the historical influence declines and thus the processual period is weakening (Fotopoulos, 2014). For instance, Aghion et al. (2016) studied firms' patenting behavior, showing a positive relationship ($\gamma > 0$) between the number of patents at the present ($y_{i,t}$) and the sum of prior year outcomes with a discount rate δ of 0.8 ($\sum_{j=1}^t \delta^j y_{i,t-j}$) as the evidence for self-reinforcement by learning.

If a firm has experienced a directed juncture (at Box 2), a positive γ (a strengthening processual period) indicates the observed pattern is a cohort effect (Box 4), a zero γ (a preserving processual period) indicates that it is imprinting (Box 5), and a negative γ (a weakening processual period) indicates that it is inertial decay (Box 6). If we are at

random junctures (at Box 3), then a positive γ indicates path dependence (Box 7), a zero γ indicates path stability (Box 8), and finally a negative γ indicates dissipation (Box 9).

Implications for the Practice of Managing Influences from the Past

Our perspective also provides important practical implications on managing the past more effectively. First, managers might be well served to consider how the historical influence of certain organizations may be traced to a juncture, such as the founding period, founders, major transformations, or environmental changes. If that is the case, then managers should focus on revising the corresponding underlying components. For example, Dara Khosrowshahi, who succeeded founder Travis Kalanick as CEO of Uber, identified that the core issues the company faced were a result of imprinted routines, structures, and culture. He thus revised the company's safety routines such as implementing driver background checks, adding safety features to the app to prevent sexual harassment, changing the corporate leadership structure by hiring a chief diversity and inclusion officer, and rewriting the aggressive cultural values established by founder Kalancik by focusing on celebrating differences and encouraging employees' ideas. Uber was eventually able to regain its footing as a leading ride-hailing company (Kerr, 2018; Lee, 2021).

In addition to significantly revising organizational components that carry historical influence, managers might reset the organizational clock through initiating an additional, new juncture. One well-studied approach is creating ambidextrous organizations (Birkinshaw & Gibson, 2004). Firms become ambidextrous by maintaining their traditional businesses while creating independent new units to explore new areas. Thus, recognizing the challenge of significantly changing organizational structures and routines, firms can establish a new organization, typically geographically and organizational separated from the parent to force an organizational juncture in effect such that more substantial change can occur.

For example, in the 1990s, USA Today's president Tom Curley launched an independent

online news service (i.e., USA Today.com) and later a television operation (i.e., USA Today Direct) to address competition from the internet media and falling newspaper readership. The online news service and television operation were physically separate from the newspaper business, maintaining their respective processes, structures, and cultures. For example, USA Today.com hired staff independently, focusing on younger employees and emphasizing a more collaborative, team-oriented culture. In contrast, journalists in the print business tended to focus on their individual bylines and aggressively compete against each other. Curley then shared and integrated resources among the traditional newspaper, internet, and television platforms.

These adjustments paid off: USA Today was able to maintain strong growth and profits for all three media platforms, earning 60 million U.S. dollars during the internet collapse in the early 2000s when other newspapers' profits had dropped substantially (O'Reilly & Tushman, 2004). Likewise, many established organizations have built new start-ups within their firms to try to overcome structural inertia that may impede innovation. For example, General Motors established a Design Studio in Pasadena—far from the culture and influence in Detroit—to work on design and innovation in the areas of advanced technology, software integration, and future mobility issues. Our typology and diagnostic tools thus help identify when ambidextrous strategies would be particularly important.

Managers also need to consider weakening the reinforcement loop in processual periods if patterns from the past are exerting a negative influence. That is, it may be necessary to break vicious cycles in a strengthening processual period. For example, when Best Buy's sales dropped significantly due to competition from both Amazon and other local stores, it implemented cost-cutting measures, including laying off employees and reducing related training programs. As a result, employees became less engaged and

competent in technology expertise, leading to a diminished customer experience. Sales in turn declined further, prompting more cost cutting. New CEO Hubert Joly broke this vicious cycle by focusing on revitalizing customer service and implementing strategic changes to improve the in-store and online shopping experience. He adopted a customer-centric approach by better training for employees to provide expert advice and revitalizing the Geek Squad to assist customers with product setup, troubleshooting, and technical support. He also introduced price matching with online retailers like Amazon, implemented customer loyalty and personalized marketing programs, and integrated in-store and online shopping experience. These changes helped Best Buy achieve a significant turnaround in the late 2010s (Wells & Ellsworth, 2016). Managers can also reduce coordination effects among different functional teams, which reinforces the existing effect, by incentivizing these groups to work independently.

Further, managers and policymakers may have to examine effects of both junctures and processual periods simultaneously to identify which exact historical pattern their firms are encountering (Dobbin, 1994; Marquis, 2019). Our framework suggests that policies that aim to address influences from the past emanating from a cohort effect can be less effective if the policies only focus on the influence formed during the juncture without disrupting the self-reinforcing loop, namely, mistaking it as imprinting. For example, while Kodak was one of the early innovators in digital filming technologies, its executives decided not to pursue this opportunity in part due to self-reinforcement—the continuing positive feedback from consumers of traditional film (Tripsas & Gavetti, 2000).

CONCLUSION

We provide an integrative perspective on historical influences by decomposing an organization's past into junctures and processual periods. Organizational agency in junctures can be directed or random, and processual periods may then strengthen, preserve, or weaken

historical influence formed in prior stages. Such differentiation allows us to identify six ideal types of historical patterns: cohort effect, imprinting, path dependence, inertial decay, path stability, and dissipation. We illustrate the utility of our general perspective of historical influence with three major applications, including extending and enriching theories of the past, proposing methodological considerations for empirical research, and shedding light on managing the past. Overall, our comprehensive framework provides a systematic way to understand influences from the past theoretically, empirically, and practically, setting the stage for more cumulative knowledge about how history matters for organizations more generally. We hope our framework can accelerate the growth of this booming area of inquiry, incorporating historical processes into management research more fully, and informing more accurate ways to study history and organizations in theory and practice.

REFERENCES

- Abbott, A. 2001. *Time Matters: On Theory and Method*. Chicago, IL: University of Chicago Press.
- Abrahamson, E., & Rosenkopf, L. 1993. Institutional and competitive bandwagons: Using mathematical modeling as a tool to explore innovation diffusion. *Academy of Management Review*, 18(3): 487-517.
- Acock, A. C. 2014. *A Gentle Introduction to Stata* (Fourth ed.). College Station, TX: Stata Press.
- Aghion, P., Dechezleprêtre, A., Hemous, D., Martin, R., & Van Reenen, J. 2016. Carbon taxes, path dependency, and directed technical change: Evidence from the auto industry. *Journal of Political Economy*, 124(1): 1-51.
- Aguilera, R. V., Dencker, J. C., & Yalabik, Z. Y. 2008. Institutions and organizational socialization: Integrating employees in cross-border mergers and acquisitions. In A. Y. Lewin, S. T. Cavusgil, G. T. M. Hult, & D. A. Griffith (Eds.), *Thought Leadership in Advancing International Business Research*: 153-189. London: Palgrave Macmillan UK.
- Aguilera, R. V., & Grøgaard, B. 2019. The dubious role of institutions in international business: A road forward. *Journal of International Business Studies*, 50(1): 20-35.
- Aldrich, H. E., & Ruef, M. 2006. *Organizations Evolving*. Thousand Oaks, CA: Sage.
- Andriani, P., & Cohen, J. 2013. From exaptation to radical niche construction in biological and technological complex systems. *Complexity*, 18(5): 7-14.
- Anokhin, S., Morgan, T., Jones Christensen, L., & Schulze, W. 2023. Local context and post-crisis social venture creation. *Strategic Entrepreneurship Journal*, 17(1): 40-60.
- Anteby, M., & Molnár, V. 2012. Collective memory meets organizational identity: Remembering to forget in a firm's rhetorical history. *Academy of Management Journal*, 55(3): 515-540.
- Arkes, H. R., & Blumer, C. 1985. The psychology of sunk cost. *Organizational Behavior and Human Decision Processes*, 35(1): 124-140.
- Arthur, W. B. 1994. *Increasing Returns and Path Dependence in the Economy*. Ann Arbor, MI: University of Michigan Press.
- Azoulay, P., & Shane, S. 2001. Entrepreneurs, contracts and the failure of young firms. *Management Science*, 47(3): 337-358.
- Baron, J. N., Hannan, M. T., & Burton, M. D. 1999. Building the iron cage: Determinants of managerial intensity in the early years of organizations. *American Sociological Review*, 64(4): 527-547.
- Beckman, C. M., & Burton, M. D. 2008. Founding the future: Path dependence in the evolution of top management teams from founding to IPO. *Organization Science*, 19(1): 3-24.
- Bednar, J., Page, S. E., & Toole, J. L. 2012. Revised-path dependence. *Political Analysis*, 20(2): 146-156.
- Birkinshaw, J., & Gibson, C. 2004. Building an ambidextrous organization. *MIT Sloan Management Review*, 45(4): 47-55.
- Blanchard, O. J., & Summers, L. H. 1986. Hysteresis and the European unemployment problem. *NBER Macroeconomics Annual*, 1: 15-78.
- Boeker, W. 1989. The development and institutionalization of subunit power in organizations. *Administrative Science Quarterly*, 34(3): 388-410.
- Bresnahan, T. F., Stern, S., & Trajtenberg, M. 1997. Market segmentation and the sources of rents from innovation: Personal computers in the late 1980's. *The RAND Journal of Economics*, 28: S17-S44.
- Brockner, J. 1992. The escalation of commitment to a failing course of action: Toward theoretical progress. *Academy of Management Review*, 17(1): 39-61.
- Bromley, P., & Sharkey, A. 2017. Casting call: The expanding nature of actorhood in U.S. firms, 1960–2010. *Accounting, Organizations and Society*, 59: 3-20.
- Bruggeman, D. 2002. NASA: A path dependent organization. *Technology in Society*, 24(4): 415-431.
- Burgelman, R. A. 2002. Strategy as vector and the inertia of coevolutionary lock-in. *Administrative Science Quarterly*, 47(2): 325-357.
- Burns, T. E., & Stalker, G. M. 1961. *Management of Innovation*. London, UK: Tavistock Publications.
- Busch, C. 2022. Toward a theory of serendipity: A systematic review and conceptualization. *Journal of Management Studies*, forthcoming.
- Capoccia, G., & Kelemen, R. D. 2007. The study of critical junctures: Theory, narrative, and counterfactuals in historical institutionalism. *World Politics*, 59(3): 341-369.
- Carroll, G., & Hannan, T. M. 2000. *The Demography of Corporations and Industries*. Princeton, NJ: Princeton University Press.
- Chakrabarti, A. 2015. Organizational adaptation in an economic shock: The role of growth reconfiguration. *Strategic Management Journal*, 36(11): 1717-1738.
- Charron, M. 2020. *Exploiting the Potential of Hazelnut By-Products in a Confectionary Food Company*. Università degli studi di Parma, Parma, Italy.
- Chatman, J. A., & Jehn, K. A. 1994. Assessing the relationship between industry characteristics and organizational

- culture: how different can you be? *Academy of Management Journal*, 37(3): 522-553.
- Chen, M.-J., & Miller, D. 2012. Competitive dynamics: Themes, trends, and a prospective research platform. *Academy of Management Annals*, 6(1): 135-210.
- Chen, X., Zou, H., & Wang, D. T. 2009. How do new ventures grow? Firm capabilities, growth strategies and performance. *International Journal of Research in Marketing*, 26(4): 294-303.
- Child, J. 1972. Organizational structure, environment and performance: The role of strategic choice. *Sociology*, 6(1): 1-22.
- Clemens, E. S. 2015. Organizing powers in eventful times. *Social Science History*, 39(1): 1-24.
- Cobb, J. A. 2015. Risky business: The Decline of defined benefit pensions and firms' shifting of risk. *Organization Science*, 26(5): 1332-1350.
- Cohen, B. D., & Dean, T. J. 2005. Information asymmetry and investor valuation of IPOs: Top management team legitimacy as a capital market signal. *Strategic Management Journal*, 26(7): 683-690.
- Cohen, W. M., & Levinthal, D. A. 1990. Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1): 128-152.
- Cortright, E. M. 2019. *Apollo Expeditions to the Moon: The NASA History 50th Anniversary Edition*. Mineola, NY: Dover Publications.
- David, P. A. 1985. Clio and the economics of QWERTY. *American Economic Review*, 75(2): 332-337.
- de Cuyper, L., Clarysse, B., & Phillips, N. 2020. Imprinting beyond the founding phase: How sedimented imprints develop over time. *Organization Science*, 31(6): 1579-1600.
- de Holan, P. M., & Phillips, N. 2004. Remembrance of things past? The dynamics of organizational forgetting. *Management Science*, 50(11): 1603-1613.
- de Rond, M., & Thietart, R.-A. 2007. Choice, chance, and inevitability in strategy. *Strategic Management Journal*, 28(5): 535-551.
- Dew, N., Sarasvathy, S. D., & Venkataraman, S. 2004. The economic implications of exaptation. *Journal of Evolutionary Economics*, 14(1): 69-84.
- DiMaggio, P. J., & Powell, W. W. 1983. The iron cage revisited: Collective rationality and institutional isomorphism in organizational fields. *American Sociological Review*, 48(2): 147-160.
- Dobbin, F. R. 1994. *Forging industrial policy: The United States, Britain, and France in the railway age*. Cambridge, UK: Cambridge University Press.
- Dorobantu, S., Kaul, A., & Zelner, B. 2017. Nonmarket strategy research through the lens of new institutional economics: An integrative review and future directions. *Strategic Management Journal*, 38(1): 114-140.
- Duhaime, I. M., & Grant, J. H. 1984. Factors influencing divestment decision-making: Evidence from a field study. *Strategic Management Journal*, 5(4): 301-318.
- Ellis, S., Aharonson, B. S., Drori, I., & Shapira, Z. 2017. Imprinting through inheritance: A multi-genealogical study of entrepreneurial proclivity. *Academy of Management Journal*, 60(2): 500-522.
- Emirbayer, M., & Mische, A. 1998. What is agency? *American Journal of Sociology*, 103(4): 962-1023.
- Feldman, M. S., & Pentland, B. T. 2003. Reconceptualizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly*, 48(1): 94-118.
- Ferriani, S., Garnsey, E., & Lorenzoni, G. 2012. Continuity and change in a spin-off venture: The process of reimprinting. *Industrial and Corporate Change*, 21(4): 1011-1048.
- Fey, C. F., Hu, T., & Delios, A. 2023. The Measurement and communication of effect sizes in management research. *Management and Organization Review*, 19(1): 176-197.
- Fligstein, N. 1990. *The Transformation of Corporate Control*. Cambridge, MA: Harvard University Press.
- Ford, J. D., & Ford, L. W. 1994. Logics of identity, contradiction and attraction in change. *Academy of Management Review*, 19(4): 756-785.
- Fotopoulos, G. 2014. On the spatial stickiness of UK new firm formation rates. *Journal of Economic Geography*, 14(3): 651-679.
- Furst, S. A., & Cable, D. M. 2008. Employee resistance to organizational change: Managerial influence tactics and leader-member exchange. *Journal of Applied Psychology*, 93(2): 453-462.
- Garud, R., Gehman, J., & Giuliani, A. P. 2018. Serendipity arrangements for exapting science-based innovations. *Academy of Management Perspectives*, 32(1): 125-140.
- Geletkanycz, M. A. 1997. The salience of 'culture's consequences': The effects of cultural values on top executive commitment to the status quo. *Strategic Management Journal*, 18(8): 615-634.
- Geroski, P. A., Mata, J., & Portugal, P. 2010. Founding conditions and the survival of new firms. *Strategic Management Journal*, 31(5): 510-529.
- Goldstone, J. A. 1998. Initial conditions, general laws, path dependence, and explanation in historical sociology. *American Journal of Sociology*, 104(3): 829-845.
- Halliday, T. C., Powell, M. J., & Granfors, M. W. 1987. Minimalist organizations: Vital events in state bar associations, 1870-1930. *American Sociological Review*, 52(4): 456-471.
- Hambrick, D. C., & Fukutomi, G. D. 1991. The seasons of a CEO's tenure. *Academy of Management Review*,

- 16(4): 719-742.
- Hambrick, D. C., & Mason, P. A. 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2): 193-206.
- Hannan, M. T., & Freeman, J. 1984. Structural inertia and organizational change. *American Sociological Review*, 49(2): 149-164.
- Hathaway, O. A. 2000. Path dependence in the law: The course and pattern of legal change in a common law system. *Iowa Law Review*, 86(2): 601-661.
- Haveman, H. A. 1993. Ghosts of managers past: Managerial succession and organizational mortality. *Academy of Management Journal*, 36(4): 864-881.
- Helfat, C. E. 1994. Evolutionary trajectories in petroleum firm R&D. *Management Science*, 40(12): 1720-1747.
- Hiatt, S. R., Sine, W. D., & Tolbert, P. S. 2009. From Pabst to Pepsi: The deinstitutionalization of social practices and the creation of entrepreneurial opportunities. *Administrative Science Quarterly*, 54(4): 635-667.
- Hsu, D. H., & Lim, K. 2014. Knowledge brokering and organizational innovation: Founder imprinting effects. *Organization Science*, 25(4): 1134-1153.
- Huggins, R., Stuetzer, M., Obschonka, M., & Thompson, P. 2021. Historical industrialisation, path dependence and contemporary culture: The lasting imprint of economic heritage on local communities. *Journal of Economic Geography*, 21(6): 841-867.
- IBM website. A Culture of Think, Vol. 2022: IBM.
- Jacobides, M. G. 2007. The inherent limits of organizational structure and the unfulfilled role of hierarchy: Lessons from a near-war. *Organization Science*, 18(3): 455-477.
- Johnson, V. 2007. What is organizational imprinting? Cultural entrepreneurship in the founding of the Paris Opera. *American Journal of Sociology*, 113(1): 97-127.
- Jones, G., & Khanna, T. 2006. Bringing history (back) into international business. *Journal of International Business Studies*, 37(4): 453-468.
- Kasbekar, C. 2020. Adaptation of new organizations to legitimacy shocks: Postbellum firearms firms in the U.S. South, 1866–1914. *Organization Science*, 31(2): 355-377.
- Kennedy, A. A., & Deal, T. E. 1982. *Corporate Cultures: The Rites and Rituals of Corporate Life*. Harmondsworth, UK: Penguin Books.
- Kerr, D. 2018. Uber's U-turn: How the new CEO is cleaning house after scandals and lawsuits, *CNET*. San Francisco, CA.
- King, B. G., & Soule, S. A. 2007. Social movements as extra-institutional entrepreneurs: The effect of protests on stock price returns. *Administrative Science Quarterly*, 52(3): 413-442.
- Kipping, M., & Üsdiken, B. 2014. History in organization and management theory: More than meets the eye. *Academy of Management Annals*, 8(1): 535-588.
- Klüppel, L. M., Pierce, L., & Snyder, J. A. 2018. The deep historical roots of organization and strategy: Traumatic shocks, culture, and institutions. *Organization Science*, 29(4): 702-721.
- Kogut, B., & Zander, U. 2000. Did socialism fail to innovate? A natural experiment of the two Zeiss companies. *American Sociological Review*, 65(2): 169-190.
- Kriauciunas, A., & Kale, P. 2006. The impact of socialist imprinting and search on resource change: A study of firms in Lithuania. *Strategic Management Journal*, 27(7): 659-679.
- Lawrence, P. R., & Lorsch, J. W. 1967. *Organization and Environment: Managing Differentiation and Integration*. Boston, MA: Graduate School of Business Administration, Harvard University.
- Lee, D. 2021. Dara Khosrowshahi, the man reforming Uber, *Financial Times*. San Francisco, CA: Financial Times.
- Leppink, J., O'Sullivan, P., & Winston, K. 2016. Effect size - large, medium, and small. *Perspectives on medical education*, 5(6): 347-349.
- Levinthal, D. A. 2003. Imprinting and the evolution of firm capabilities. In C. E. Helfat (Ed.), *The SMS Blackwell Handbook of Organizational Capabilities*: 100-103. Oxford England: Blackwell Publishing.
- Lewis, J. D. 2002. *Partnerships for Profit: Structuring and Managing Strategic Alliances*. New York, NY: Free Press.
- Lieberman, M. B., Lee, G. K., & Folta, T. B. 2017. Entry, exit, and the potential for resource redeployment. *Strategic Management Journal*, 38(3): 526-544.
- Lippmann, S., & Aldrich, H. E. 2016. A rolling stone gathers momentum: Generational units, collective memory, and entrepreneurship. *Academy of Management Review*, 41(4): 658-675.
- Madsen, P. M. 2009. These lives will not be lost in vain: Organizational learning from disaster in US coal mining. *Organization Science*, 20(5): 861-875.
- Madsen, T. L., & Walker, G. 2017. Competitive heterogeneity, cohorts, and persistent advantage. *Strategic Management Journal*, 38(2): 184-202.
- Mahoney, J. 2000. Path dependence in historical sociology. *Theory and Society*, 29(4): 507-548.
- Mahoney, J., & Thelen, K. (Eds.). 2009. *Explaining Institutional Change: Ambiguity, Agency, and Power*.

- Cambridge, UK/New York, NY: Cambridge University Press.
- Marquis, C. 2019. Theorizing historical processes: Implications for Chinese management. *Quarterly Journal of Management (in Chinese)*, 2018(3): 1-24.
- Marquis, C., & Huang, Z. 2010. Acquisitions as exaptation: The legacy of founding institutions in the US commercial banking industry. *Academy of Management Journal*, 53(6): 1441-1473.
- Marquis, C., & Qiao, K. 2020. Waking from Mao's dream: Communist ideological imprinting and the internationalization of entrepreneurial ventures in China. *Administrative Science Quarterly*, 65(3): 795-830.
- Marquis, C., & Qiao, K. 2022. *Mao and Markets: The Communist Roots of Chinese Enterprise*. New Haven, CT and London, UK: Yale University Press.
- Marquis, C., & Tilcsik, A. 2013. Imprinting: Toward a multilevel theory. *Academy of Management Annals*, 7(1): 195-245.
- McDougall, P. P., & Oviatt, B. M. 1996. New venture internationalization, strategic change, and performance: A follow-up study. *Journal of Business Venturing*, 11(1): 23-40.
- Mena, S., Rintamäki, J., Fleming, P., & Spicer, A. 2016. On the forgetting of corporate irresponsibility. *Academy of Management Review*, 41(4): 720-738.
- Meyer, A. D. 1982. Adapting to environmental jolts. *Administrative Science Quarterly*, 27(4): 515-537.
- Micelotta, E., Lounsbury, M., & Greenwood, R. 2017. Pathways of institutional change: An integrative review and research agenda. *Journal of Management*, 43(6): 1885-1910.
- Middleton, W. J. 1999. Adventures of a fluorine chemist at DuPont. *Journal of Fluorine Chemistry*, 100(1): 207-216.
- Miller, D. 1990. *The Icarus Paradox: How Exceptional Companies Bring about Their Own Downfall*. New York, NY: Harper.
- Mithani, M. A. 2017. Liability of foreignness, natural disasters, and corporate philanthropy. *Journal of International Business Studies*, 48(8): 941-963.
- Montgomery, C. A., & Thomas, A. R. 1988. Divestment: Motives and gains. *Strategic Management Journal*, 9(1): 93-97.
- Mosher, J. 2014. Super-strong, strong, and weak path dependency: Ohio University.
- Munir, K. A., & Phillips, N. 2005. The birth of the 'Kodak Moment': Institutional entrepreneurship and the adoption of new technologies. *Organization Studies*, 26(11): 1665-1687.
- Nelson, L. K. 2021. Cycles of conflict, a century of continuity: The impact of persistent place-based political logics on social movement strategy. *American Journal of Sociology*, 127(1): 1-59.
- Nelson, R. R., & Winter, S. G. 1982. *An Evolutionary Theory of Economic Change*. Cambridge, MA: Harvard University Press.
- O'Reilly, C. A., & Chatman, J. A. 1996. Culture as social control: Corporations, cults and commitment. *Research in Organizational Behavior*, 18: 157-200.
- O'Reilly, C. A., & Tushman, M. L. 2004. The ambidextrous organization. *Harvard Business Review*, 82(4): 74-81.
- Ocasio, W. 1999. Institutionalized action and corporate governance: The reliance on rules of CEO succession. *Administrative Science Quarterly*, 44(2): 384-416.
- Ocasio, W., & Kim, H. 1999. The circulation of corporate control: Selection of functional backgrounds of new CEOs in large US manufacturing firms, 1981-1992. *Administrative Science Quarterly*, 44(3): 532-562.
- Page, S. E. 2006. Path dependence. *Quarterly Journal of Political Science*, 1(1): 87-115.
- Pascale, R. T. 1984. Perspectives on strategy: The real story behind Honda's success. *California Management Review*, 26(3): 47-72.
- Perkmann, M., & Spicer, A. 2014. How emerging organizations take form: The role of imprinting and values in organizational bricolage. *Organization Science*, 25(6): 1785-1806.
- Petermann, A., Schreyögg, G., & Fürstenau, D. 2019. Can hierarchy hold back the dynamics of self-reinforcing processes? A simulation study on path dependence in hierarchies. *Business Research*, 12(2): 637-669.
- Phelps, R., Adams, R., & Bessant, J. 2007. Life cycles of growing organizations: A review with implications for knowledge and learning. *International Journal of Management Reviews*, 9(1): 1-30.
- Pierson, P. 2000. Increasing returns, path dependence, and the study of politics. *American Political Science Review*, 94(2): 251-267.
- Pollock, T. G., & Rindova, V. P. 2003. Media legitimation effects in the market for initial public offerings. *Academy of Management Journal*, 46(5): 631-642.
- Pugh, D. S., Hickson, D. J., Hinings, C. R., Macdonald, K. M., Turner, C., & Lupton, T. 1963. A conceptual scheme for organizational analysis. *Administrative Science Quarterly*, 8(3): 289-315.
- Qiao, K. 2022. *History and Geography in the Making of Corporate Strategy and Structure*. Unpublished Ph.D., Cornell University, Ann Arbor.
- Quinn, R. E., & Cameron, K. 1983. Organizational life cycles and shifting criteria of effectiveness: Some

- preliminary evidence. *Management Science*, 29(1): 33-51.
- Rao, H. 1994. The social construction of reputation: Certification contests, legitimation, and the survival of organizations in the American automobile industry: 1895–1912. *Strategic management journal*, 15(S1): 29-44.
- Raynard, M., Lu, F., & Jing, R. 2020. Reinventing the state-owned enterprise? Negotiating change during profound environmental upheaval. *Academy of Management Journal*, 63(4): 1300–1335.
- Robinson, K. C. 1999. An examination of the influence of industry structure on eight alternative measures of new venture performance for high potential independent new ventures. *Journal of Business Venturing*, 14(2): 165-187.
- Romanelli, E., & Tushman, M. L. 1994. Organizational transformation as punctuated equilibrium: An empirical test. *Academy of Management Journal*, 37(5): 1141-1166.
- Rosow, I. 1978. What is a cohort and why? *Human Development*, 21(2): 65-75.
- Rousseau, D. M., Ho, V. T., & Greenberg, J. 2006. I-deals: Idiosyncratic terms in employment relationships. *Academy of Management Review*, 31(4): 977-994.
- Rowlinson, M., & Procter, S. 1999. Organizational culture and business history. *Organization Studies*, 20(3): 369-396.
- Rumelt, R. P., Schendel, D., & Teece, D. J. 1994. *Fundamental Issues in Strategy*. Boston, MA: Harvard Business Press.
- Sackmann, S. A. 1992. Culture and subcultures: An analysis of organizational knowledge. *Administrative Science Quarterly*, 37(1): 140-161.
- Sarros, J. C., Gray, J., Densten, I. L., & Cooper, B. 2005. The organizational culture profile revisited and revised: An Australian perspective. *Australian Journal of Management*, 30(1): 159-182.
- Sarta, A., Durand, R., & Vergne, J.-P. 2021. Organizational adaptation. *Journal of Management*, 47(1): 43-75.
- Schein, E. H. 1985. *Organizational Culture and Leadership*. San Francisco, CA: Jossey-Bass Publishers.
- Schein, E. H. 1996. Culture: The missing concept in organization studies. *Administrative Science Quarterly*, 41(2): 229-240.
- Scott, W. R. 2003. *Organizations: Rational, Natural, and Open Systems*. Upper Saddle River, NJ: Prentice Hall.
- Sewell, W. H. 1992. A theory of structure: Duality, agency, and transformation. *American Journal of Sociology*, 98(1): 1-29.
- Shinkle, G. A., & Kriauciunas, A. P. 2012. The impact of current and founding institutions on strength of competitive aspirations in transition economies. *Strategic Management Journal*, 33(4): 448-458.
- Simsek, Z., Fox, B. C., & Heavey, C. 2015. “What’s past is prologue”: A framework, review, and future directions for organizational research on imprinting. *Journal of Management*, 41(1): 288-317.
- Sine, W. D., Mitsuhashi, H., & Kirsch, D. A. 2006. Revisiting Burns and Stalker: Formal structure and new venture performance in emerging economic sectors. *Academy of Management Journal*, 49(1): 121-132.
- Smith, K. G., Grimm, C. M., Gannon, M. J., & Chen, M.-J. 1991. Organizational information processing, competitive responses, and performance in the US domestic airline industry. *Academy of Management Journal*, 34(1): 60-85.
- Soifer, H. D. 2012. The causal logic of critical junctures. *Comparative Political Studies*, 45(12): 1572-1597.
- Staw, B. M., & Ross, J. 1987. Knowing when to pull the plug. *Harvard Business Review*, 65(2): 68-74.
- Stieglitz, N., & Heine, K. 2007. Innovations and the role of complementarities in a strategic theory of the firm. *Strategic Management Journal*, 28(1): 1-15.
- Stinchcombe, A. L. 1965. Social structure and organizations. In J. G. March (Ed.), *Handbook of organizations*: 142-193. Chicago, IL: Rand McNally.
- Swaminathan, A. 1996. Environmental conditions at founding and organizational mortality: A trial-by-fire model. *Academy of Management Journal*, 39(5): 1350-1377.
- Swartz, D. L. 2008. Bringing Bourdieu’s master concepts into organizational analysis. *Theory and Society*, 37(1): 45-52.
- Swidler, A. 1986. Culture in action: Symbols and strategies. *American Sociological Review*, 51(2): 273-286.
- Sydow, J., Schreyögg, G., & Koch, J. 2009. Organizational path dependence: Opening the black box. *Academy of Management Review*, 34(4): 689-709.
- Sydow, J., Schreyögg, G., & Koch, J. 2020. On the theory of organizational path dependence: Clarifications, replies to objections, and extensions. *Academy of Management Review*, 45(4): 717-734.
- Teece, D. J. 1988. Capturing value from technological innovation: Integration, strategic partnering, and licensing decisions. *INFORMS Journal on Applied Analytics*, 18(3): 46-61.
- Thelen, K. 1999. Historical institutionalism in comparative politics. *Annual Review of Political Science*, 2(1): 369-404.
- Thelen, K. 2004. *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan*. Cambridge, UK: Cambridge University Press.
- Thomson, W. 1852. *On a universal tendency in nature to the dissipation of mechanical energy*. Paper presented

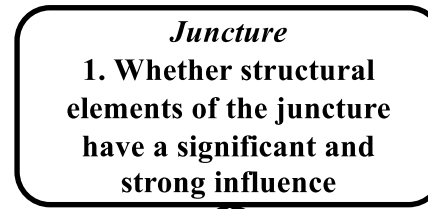
- at the Royal Society of Edinburgh.
- Thornton, P. H., & Ocasio, W. 1999. Institutional logics and the historical contingency of power in organizations: Executive succession in the higher education publishing industry, 1958–1990. *American Journal of Sociology*, 105(3): 801-843.
- Tilcsik, A. 2014. Imprint–environment fit and performance how organizational munificence at the time of hire affects subsequent job performance. *Administrative Science Quarterly*, 59(4): 639-668.
- Tilcsik, A., & Marquis, C. 2013. Punctuated generosity: How mega-events and natural disasters affect corporate philanthropy in U.S. communities. *Administrative Science Quarterly*, 58(1): 111-148.
- Tripsas, M., & Gavetti, G. 2000. Capabilities, cognition, and inertia: Evidence from digital imaging. *Strategic Management Journal*, 21(10/11): 1147-1161.
- Tsui, A. S., Wang, H., & Xin, K. R. 2006. Organizational culture in China: An analysis of culture dimensions and culture types. *Management and Organization Review*, 2(3): 345-376.
- Useem, M. 1996. *Investor Capitalism: How Money Managers Are Changing the Face of Corporate America*. New York, NY: Basic Books.
- Vergne, J.-P. 2013. QWERTY is dead; long live path dependence. *Research Policy*, 42(6): 1191-1194.
- Vergne, J.-P., & Durand, R. 2010. The missing link between the theory and empirics of path dependence: Conceptual clarification, testability issue, and methodological implications. *Journal of Management Studies*, 47(4): 736-759.
- Wadhvani, R. D., Suddaby, R., Mordhorst, M., & Popp, A. 2018. History as organizing: Uses of the past in organization studies. *Organization Studies*, 39(12): 1663-1683.
- Weber, M. 1946. *From Max Weber: Essays in Sociology* (H. H. Gerth, & C. W. Mills, Trans.). New York, NY: Oxford University Press.
- Wells, J. R., & Ellsworth, G. 2016. Reinventing Best Buy, *Harvard Business School*.
- Witt, U. 2011. Emergence and functionality of organizational routines: An individualistic approach. *Journal of Institutional Economics*, 7(2): 157-174.
- Wu, G. A. 2012. The effect of going public on innovative productivity and exploratory search. *Organization Science*, 23(4): 928-950.
- Yang, T., & Aldrich, H. E. 2017. “The liability of newness” revisited: Theoretical restatement and empirical testing in emergent organizations. *Social Science Research*, 63: 36-53.
- Zhang, L. 2021. Shaking things up: Disruptive events and inequality. *American Journal of Sociology*, 127(2): 376-440.
- Zheng, Y., Liu, J., & George, G. 2010. The dynamic impact of innovative capability and inter-firm network on firm valuation: A longitudinal study of biotechnology start-ups. *Journal of Business Venturing*, 25(6): 593-609.

TABLE 1
A Typology of Historical Influence on Organizations by Combining One Juncture and One Processual Period

Juncture /processual period	Strengthening	Preserving	Weakening
Directed juncture	<p>Cohort effect</p> <p>Definition: “a high degree of similarity in characteristics and outcomes” within the aggregate (Marquis & Tilcsik, 2013: 206; Rosow, 1978).</p> <p>Examples:</p> <ul style="list-style-type: none"> • State bar associations (Halliday et al., 1987). • Top managers entering their organization at the same time (Hambrick & Mason, 1984; Tilcsik, 2014). 	<p>Imprinting</p> <p>Definition: Persistent influence of prominent characteristics during sensitive periods (Stinchcombe, 1965).</p> <p>Examples:</p> <ul style="list-style-type: none"> • The Zeiss Company in Jena, Germany (Kogut & Zander, 2000). • The business model of the Paris Opera (Johnson, 2007). 	<p>Inertial decay</p> <p>Definition: Effect of prominent characteristics during sensitive periods declines over time (Marquis & Tilcsik, 2013).</p> <p>Examples:</p> <ul style="list-style-type: none"> • Socialist legacy for firms in Eastern Europe (Kriauciunas & Kale, 2006). • Beliefs of communist entrepreneurs in China (Marquis & Qiao, 2020).
Random juncture	<p>Path dependence</p> <p>Definition: A random or contingent force becomes increasingly strong due to self-reinforcement (David, 1985; Sydow et al., 2009).</p> <p>Examples:</p> <ul style="list-style-type: none"> • NASA’s lunar orbit rendezvous (Bruggeman, 2002). • Pfizer’s Viagra (de Rond & Thietart, 2007). 	<p>Path stability</p> <p>Definition: A random or contingent force in the juncture stays stable (Hathaway, 2000).</p> <p>Examples:</p> <ul style="list-style-type: none"> • Hysteresis hypothesis (Blanchard & Summers, 1986). • A natural disaster on Indian multinationals (Mithani, 2017). 	<p>Dissipation</p> <p>Definition: The influence of a random or contingent force in the juncture declines (Mosher, 2014).</p> <p>Example:</p> <ul style="list-style-type: none"> • The Asian economic shock to firms (Chakrabarti, 2015). • Temporary and sudden events (Tilcsik & Marquis, 2013).

FIGURE 1
A demonstration of juncture-processual period decomposition of the past.

Step 1—Test the statistical significance and effect size (β) of institutional, economic, and other environmental and individual characteristics in a juncture

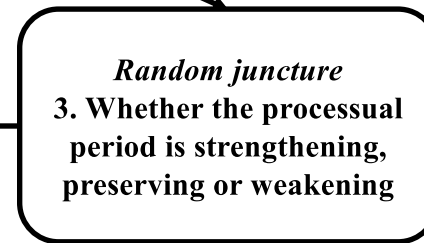
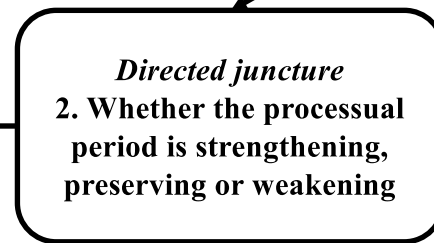


YES

NO

Step 2—Test γ

- **Positive = increasing (strengthening)**
- **Insignificant = stable (preserving)**
- **Negative = decreasing (weakening)**



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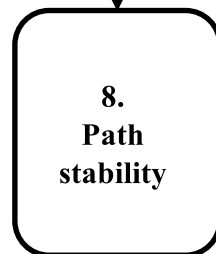
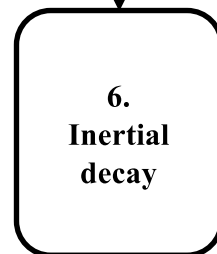
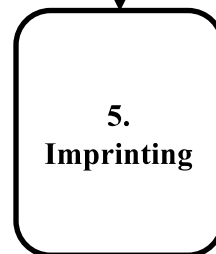
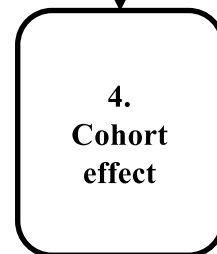
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APPENDIX

TABLE A1

Carriers of Historical Influence: Organizational Structure, Routines, and Culture

Organizational structures	Organizational routines	Organizational cultures
<p>Definition: How work activities are controlled, directed, and integrated, and related to the assignment of task, coordination, supervision, resource allocation, and so forth (Child, 1972).</p> <p>Examples:</p> <ul style="list-style-type: none"> • Locus of authority (Pugh et al., 1963). • Levels of hierarchy and reporting relations (Jacobides, 2007; Petermann et al., 2019). • Roles and responsibilities (Beckman & Burton, 2008; Sine et al., 2006). • Power distribution of subunits (Boeker, 1989). • Geographical configurations of subunits (Marquis & Huang, 2010). <p>Why organizational structures are a carrier of historical influence:</p> <ul style="list-style-type: none"> • As reliable and accountable responses to environmental demands (Pugh et al., 1963; Stinchcombe, 1965). • Reflecting founders' preferences, beliefs, and values (Johnson, 2007). <p>How organizational structures endure:</p> <ul style="list-style-type: none"> • Embody legitimacy (e.g., Intel; Burgelman, 2002). • Employee resistance (e.g., corporate scientists on R&D structure; Furst & Cable, 2008). • Homophily reproduction (e.g., leadership team; Beckman & Burton, 2008). <p>Alternative labels:</p> <ul style="list-style-type: none"> • Organizational model (Baron et al., 1999). • Organizational form (Jacobides, 2007). 	<p>Definition: “[R]epetitive, recognizable patterns of interdependent actions carried out by multiple actors” (Feldman & Pentland, 2003: 96) and generally concern how things should be done (Scott, 2003).</p> <p>Examples:</p> <ul style="list-style-type: none"> • Policies for hiring, motivating, and retaining employees (Rousseau, Ho, & Greenberg, 2006). • Standard operating procedures of acquiring raw materials, inventory control, marketing, and pricing products (Wells & Ellsworth, 2016). • Rules for coordinating different members and subunits (Witt, 2011). <p>Why organizational routines are a carrier of historical influence:</p> <ul style="list-style-type: none"> • Stabilized for problem-solving and knowledge-sharing (Nelson & Winter, 1982; Scott, 2003). • Reflecting founders' beliefs, experiences, knowledge, and values (Hsu & Lim, 2014). <p>How organizational routines endure:</p> <ul style="list-style-type: none"> • Local search (Hsu & Lim, 2014; Levinthal, 2003). • Efficiency (Azoulay & Shane, 2001; Child, 1972; Helfat, 1994). <p>Alternative labels:</p> <ul style="list-style-type: none"> • Organizational capabilities (Witt, 2011). • Policies, procedures, and rules (Ocasio, 1999). 	<p>Definition: “[T]he set of shared, taken-for-granted implicit assumptions that determines how it perceives, thinks about, and reacts to its various environments” (Schein, 1996: 236).</p> <p>Examples:</p> <ul style="list-style-type: none"> • Organizational culture profile (e.g., aggressive, detail-oriented, innovative, outcome-oriented, people-oriented, stable, and team-oriented) (Chatman & Jehn, 1994). • Additional cultural types such as orientation toward the future, harmony, pragmatism and shared vision (Tsui, Wang, & Xin, 2006). <p>Why organizational cultures are a carrier of historical influence:</p> <ul style="list-style-type: none"> • Developed to serve the original mission (Rowlinson & Procter, 1999). • Reflect founder's preference (IBM website; Kennedy & Deal, 1982). <p>How organizational cultures endure:</p> <ul style="list-style-type: none"> • Becoming assumptions and taken for granted (Schein, 1985). • Reproduction via socialization (Tilcsik, 2014). <p>Alternative labels:</p> <ul style="list-style-type: none"> • Shared beliefs and values (O'Reilly & Chatman, 1996). • Collective will and programming of mind (Sackmann, 1992).

TABLE A2
Types of Junctures

Definition:		
<ul style="list-style-type: none"> • A short time span in which historical influence forms, and these periods are marked by nascency, uncertainty, mandatory changes, or cumulative effects from processual periods. • Organizations develop certain structures, routines, and cultures (i.e., components) to reflect these conditions. • These components tend to endure and thus carry the influence of the past. • Processes can occur at both organizational and environmental levels. 		
Type	Organizational level	Environmental level
Directed	<p>Prototypes: Sensitive period and founder influence</p> <p>Description/Processes:</p> <ul style="list-style-type: none"> • Boundary changes or fundamental transformations. • Developed and institutionalized as a reliable and consistent response to the external environment. • Founders may have some discretion in designing their own ventures. <p>Examples:</p> <ul style="list-style-type: none"> • The founding environment (Johnson, 2007; Shinkle & Kriauciunas, 2012). • IPO (Beckman & Burton, 2008). • Divestiture (Ferriani et al., 2012). • Asset restructuring (Raynard et al., 2020). • Founder influence (Hsu & Lim, 2014; Kennedy & Deal, 1982; Perkmann & Spicer, 2014) 	<p>Prototypes: Institutional change, massive social movements, and technological revolution</p> <p>Description/Processes:</p> <ul style="list-style-type: none"> • Important environmental changes that unfreeze organizations and provide clear requirements for fundamental changes. • Developed structures, routines, and cultures as a reliable and consistent response to the external environment. <p>Examples:</p> <ul style="list-style-type: none"> • Institutional change (Cobb, 2015). • Technological revolutions (Munir & Phillips, 2005; Tripsas & Gavetti, 2000). • Significant social movements (King & Soule, 2007).
Random	<p>Prototype: Serendipitous events</p> <p>Description/Processes:</p> <ul style="list-style-type: none"> • Serendipitous events open possibilities for organizational actions rather than constrain them for certain directions. <p>Examples:</p> <ul style="list-style-type: none"> • Serendipitous discovery of microwave oven by Raytheon (Andriani & Cohen, 2013). • The accidental discovery of Teflon by DuPont (Middleton, 1999). • The serendipitous discovery of side effects of an antihypertensive drug led to the invention of Viagra (de Rond & Thietart, 2007). • The serendipitous finding that people like to use light bikes for personal transportation led to the Honda 50cc (Pascale, 1984). 	<p>Prototypes: Economic shock and natural disasters</p> <p>Description/Processes:</p> <ul style="list-style-type: none"> • Random and transient perturbations that are hard to foresee. <p>Examples:</p> <ul style="list-style-type: none"> • Natural disasters encouraged multinational enterprises to set up temporary procedures for disaster relief donations in India (Mithani, 2017). • The Asian Economic Shock in the late 1990s forced some firms to temporarily change their asset structure to hold more financial slack and diversify products (Chakrabarti, 2015).

TABLE A3
Types of Processual Periods

Definition:			
<ul style="list-style-type: none"> Involve longer periods of time other than sensitive periods and without serendipitous events or major environmental changes. Consist of processes at organizational and environmental levels that shape structures and routines and the resulting historical influence formed in prior junctures. 			
Level/property	Strengthening	Preserving	Weakening
Organizational	<p>Description/Processes:</p> <ul style="list-style-type: none"> Organizations reinforce existing components and thus become more committed to prior choices, strategies, and so forth. <p>Examples:</p> <ul style="list-style-type: none"> Learning (Aghion et al., 2016). Coordination (Tripsas & Gavetti, 2000). Complementarities (e.g., Mazda; Teece, 1988). Escalation of commitment (e.g., Lockheed Martin's L-1011 Tri-Star Jet program; Staw & Ross, 1987). 	<p>Description/Processes:</p> <ul style="list-style-type: none"> Organizations are subject to inertial tendencies and thus preserve existing components. <p>Examples:</p> <ul style="list-style-type: none"> Legitimacy (Boeker, 1989). Local search (Helfat, 1994; Kriauciunas & Kale, 2006). Employees resistance (Furst & Cable, 2008). Cognitive inertia due to status quo bias (Geletkanycz, 1997) and collective memory (Mena et al., 2016). Internalized dispositions (i.e., habitus; Swartz, 2008). Sunk costs and switching barriers (Arkes & Blumer, 1985; Lieberman, Lee, & Folta, 2017). 	<p>Description/Processes:</p> <ul style="list-style-type: none"> Organizational adaptation gradually weakens historical influence by incrementally revising components. Natural decay of structures and routines. <p>Examples:</p> <ul style="list-style-type: none"> Incremental changes (e.g., Hulbert Joly for Best Buy; Wells & Ellsworth, 2016). CEO turnover (e.g., Andrew Grove for Intel; Burgelman, 2002). Aging due to memory loss (Madsen, 2009) and forgetting (de Holan & Phillips, 2004; Mena et al., 2016). Waning enthusiasm (Hambrick & Fukutomi, 1991).
Environmental	<p>Description/Processes:</p> <ul style="list-style-type: none"> Positive environmental stimuli tend to reinforce firms' existing components. <p>Examples:</p> <ul style="list-style-type: none"> Positive feedback (e.g., Kodak; Tripsas & Gavetti, 2000). Adaptive expectations (Abrahamson & Rosenkopf, 1993). Coordination with other firms (Lewis, 2002). Technological spillover (Aghion et al., 2016). 	<p>Description/Processes:</p> <ul style="list-style-type: none"> Stable environment encourages firms to maintain the status quo components. <p>Examples:</p> <ul style="list-style-type: none"> Mechanistic organizational design (e.g., Burns & Stalker, 1961; Lawrence & Lorsch, 1967; Sine et al., 2006). 	<p>Description/Processes:</p> <ul style="list-style-type: none"> Gradual environmental changes make firms' existing components obsolete. <p>Examples:</p> <ul style="list-style-type: none"> Technical obsolescence (Boeker, 1989; Ocasio & Kim, 1999). Obsolescence of political beliefs of corporate leaders (Marquis & Qiao, 2020).

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