

Dynamics of strategizing practices and framing processes in organizational identity transitions

Abridged version (the full version is available from the authors)

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Abstract

Research has emphasized the importance of organizational identity for strategic moves. Using dynamic simulation, we therefore investigate mechanisms of strategizing practices in identity transitions. We identify dynamic processes of how strategic capabilities and organizational identity interact to affect strategic framing of organizational context. Results suggest that identity matures if organizations have available corresponding capabilities and that these capabilities accumulate based on organizational actions, experiments, or projections, i.e. based on actions as well as physical and mental experiments. We find that both identity shift and capability development, and the interaction between them, can constrain or provide opportunities for organizational change.

Key words

Organizational identity, framing, capabilities, identity transition, identity ambiguity, organizational change

1 The challenge to change identity

Research on organizational identity has moved from a description of what identity is to how it emerges and changes. Researchers discuss the interrelation of organizational identity, framing, and strategic moves (e.g. Clark, Gioia, Ketchen, & Thomas, 2010, Nag, Corley, & Gioia, 2007). On the one hand, the enduring nature of organizational identity impedes fundamental changes in organizational capabilities and strategic actions. On the other hand, examples reveal that organizational identity can also change rather quickly. E.g., “Linco’s” identity and framing co-evolved (Tripsas, 2009), and identity framed how schools interpreted issues (Gioia & Thomas, 1996). With growing focus on identity change, Cornelissen and Werner (2014: 219) recognize a gap in understanding the *ongoing process* of the ways framing shapes how organizations construct meaning. Complex processes of identity are not yet understood (Gioia, Patvardhan, Hamilton, & Corley, 2013: 182–184; Ibarra & Barbulescu, 2010: 135; Koerner, 2014: 64; Pratt, Rockmann, & Kaufmann, 2006: 235).

In this paper we study dynamic processes of identity transitions. We complement recent process studies as well as more traditional accounts of identity as a “stable entity” by introducing accumulations and feedback processes into the discussion. In summary, we propose a model of organizational identity transitions that links identity to organizational capabilities and framing.

We proceed by identifying causal mechanisms of organizational identity and capability formation, sustainment, and change as identified by other researchers and then construct a system dynamics model of organizational identity, capability, and actions. This method of model building addresses the complexity of interlinking causal processes (Sterman, 2000: 21–23). A causal process is a circular chain of causal relationships, i.e. a feedback mechanism (Richardson, 1991) that describes a circular sequence of process elements. Elucidating causal processes and simulating their dynamics allow us to combine a process view with a variance view (Van de Ven & Poole, 2005), i.e. ongoing processes that play out differently to explain variance in outcomes. The behavior that causal processes generate is not deterministic; in interaction with other mechanisms each either reinforces current behavior (reinforcing mechanism) or adapts towards a goal (balancing mechanism). Nag, Corley, and Gioia (2007) elucidated feedback relationships between organizational identity, knowledge and actions; Tripsas (2009) identified a reinforcing mechanism of identity and strategy; Gioia and Thomas (1996) hinted at a reinforcing mechanism of an organization’s information processing structure and its strategy, but these processes together and their interrelation have not been explored in the literature. This paper explains how interrelated causal relationships of strategizing practices and framing processes play out dynamically in phases of organizational identity sustainment and transition. It thus also allows for re-interpretation of findings from existing studies.

2 A causal model

2.1 Feedback mechanism of identity and capabilities

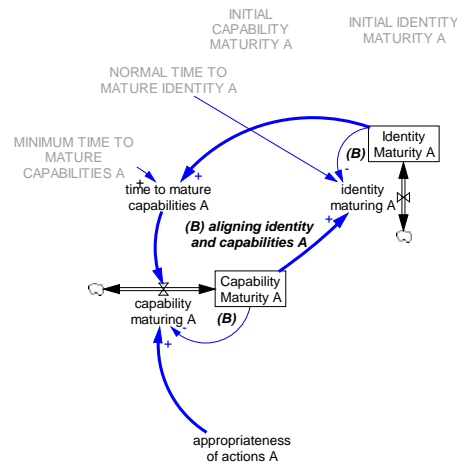
“[I]dentity is both a dynamic process that unfolds over time and a source of stability for those who depend upon it.” (Hatch & Schultz, 2004: 5) This both enduring and changing nature of identity (Gioia et al., 2013) suggests that it is an accumulation (i.e. a stock) which is able to change, but after delay. While not focused on accumulations or feedback loops in particular, the current literature does refer to mechanisms which are easily represented in feedback terms. We draw on current research on identity processes, consolidating these findings and representing them diagrammatically as feedback loops, and further by distinguishing between

variables that the literature suggests can change instantaneously and those that change only with delays (accumulations). As we reveal how other explanations differ and overlap, we create an integrated picture and offer a step towards an integrated theoretical perspective.

Nag, Corley, and Gioia (2007) pointed to the recursive nature of organizational identity, knowledge, and practices. It has also been shown that an organization's identity affects its capabilities in ways consistent with its identity (Tripsas, 2009). Tripsas (2009) explains this mechanism as follows:

“So in those instances where new technology requires a change in identity, attempting to alter only routines, capabilities, or beliefs without acknowledging the broader implications for identity can be problematic. Similarly, any effort to change identity must reach beyond corporate rhetoric and extend deep within an organization's processes in order to be effective.” (Tripsas, 2009: 442)

By this causal process, the organization aligns its self-concept with what it thinks it is capable of doing, and we thus model the influence of organizational capabilities, or of “organization's processes” as Tripsas (2009) calls them. This portrays an influence of capabilities on identity, the notion that we come to know and recognize ourselves through the capabilities and competencies we exercise consistently. In Figure 1, we represent this more specifically: the maturity of an organization's identity is a smoothing of the maturity of its capabilities. That is, mathematically it is a delayed average of capability maturity and thus an accumulation, congruent with the enduring nature of identity (Gioia et al., 2013: 124; Hatch & Schultz, 2004: 5). Matured identity then increases the *time to mature capabilities*, as it delays change, congruent with Nag et al. (2007). The feedback process *aligning identity and capabilities* is a closed loop. *Capability maturity* itself is a smoothing of the *appropriateness of actions* (relative to its environment) the organization takes. This corresponds to organizational literature, indicating that capabilities emerge from accumulated organizational activities (Helfat & Peteraf, 2003: 1003). Here, the *appropriateness of actions* represents the organization's actual action quality, given its current environment, whereas *capability maturity* expresses how capable its decision makers think they are, i.e. the accumulated perceived capability on which they act.



A stock, indicated by a box around the variable name, is an accumulation and thus the integral of the accompanying rate of inflow/outflow.

A rate changes stocks, which is why a valve is used to represent how rates add to and deplete stocks, i.e. how the rate of *identity maturing A* changes accumulated *identity maturity A*.

A positive (negative) arrow polarity indicates that the dependent variable changes in the same (opposite) direction as the previous variable.

Arrow polarities affect the polarities of entire feedback cycles. The letter *B* characterizes a balancing feedback cycle which adapts to a goal. The letter *R* indicates a reinforcing feedback cycle that aggravates changes.

Figure 1: Aligning identity and capabilities A

2.2 Feedback mechanism of capabilities and actions

Additionally, Gioia and Thomas 1996) point to the recursive nature of strategy and an organization's information processing structure. They identify a feedback mechanism between strategic actions and the framing of issues. However, while Gioia and Thomas (1996) argue that strategy also contributes to sensemaking instead of being only the result of decision making, it remains unclear how strategic actions affect framing more generally. Researchers call for closer investigation of the ongoing process and dynamics of how organizations construct frames of meaning (Cornelissen & Werner, 2014: 219).

Drawing on scholarship related to framing and identifying opportunities to act in ambiguous situations, we propose that organizational capabilities provide a necessary element for understanding the relation between framing and action. Research that explored opportunity recognition Grégoire, Barr, & Shepherd, 2010) distinguished between superficial and structural understandings; higher-order structural understanding of a situation was indicated when individuals comprehended how elements could act on one another to create cause-effect paths. Specifically Grégoire et al. (2010: 426) found that in a search for new opportunities individuals often rely on existing capabilities in one context to hypothesize cause-and-effect relationships known in that context could hold true in another. This high-level pattern-matching is consistent with Beer's (1979) notion that a system is subjectively recognized; i.e. in ambiguous situations, an individual simultaneously infers causal relations among some elements and interpretively identifies the systemic purpose of those causal connections. Once a system's purpose is named, the perceiver has implicitly set the system's boundaries and also blinded herself to any "facts" or elements not consistent with that purpose.

We therefore propose that mature capabilities effectively filter perception of an ambiguous situation. An organization's capabilities therefore influence its seeing aspects of its environment on which it can act. As an example, Schein (2003) noted that, despite the emergence of the PC, the successful minicomputer manufacturer DEC focused on existing customer groups, whom it was capable of serving, and gave little note to the growing number of customers who

entered the computer equipment market interested in smaller machines. High capability maturity in minicomputers led to a minicomputer-related interpretation of the growing PC market and focused organizational actions in accustomed directions. DEC read its environment through the lens of its capabilities and continued doing what it was good at; it did therefore not recognize other aspects of the revealed and changing environment. Organizational capabilities give rise not only to specific kinds of actions but also to specific interpretations of context in which those actions make sense.

In Figure 2 we represent this in general form by the feedback process *framing and practicing capabilities*, indicating that *capability maturity A* affects the *perceived prevalence of environment and context A*. This then affects organizational actions and the resulting *appropriateness of actions A*, from Figure 1. The *appropriateness of actions A* derives from a comparison of what the organization does and what the environment requires. The constant *ability to recognize A in the environment* jumpstarts the organization's ability to change its actions if the *prevalence of environment and context A* changes. It indicates the fraction of the organization's true perception of its environment vs. being biased by its *capability-based framing* and by the feedback loop *framing and practicing capabilities*. Thus, contextual recognition is an act of framing. It is a process of selectively focusing on the information in the environment relevant to a particular purpose related to existing capabilities.

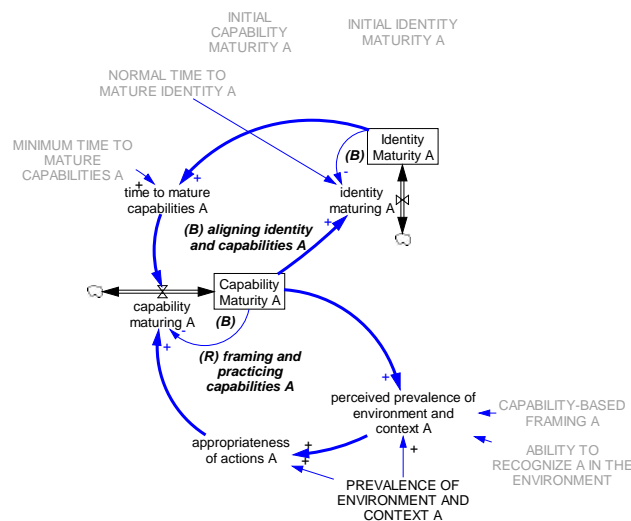


Figure 2: Framing and practicing capabilities

2.3 Feedback mechanism of identity and actions

In addition to the capability-informed context recognition, identity also affects how organizations perceive and interpret their environments (Dutton & Dukerich, 1991; Gioia & Thomas, 1996). Nag, Corley, and Gioia (2007) argued that organizational identity affects organizational actions by showing that identity is embedded in organizational members' work practices and so affects how they transform their knowledge into actions (Nag et al., 2007: 842). Identity thus moderates how situated knowledge and know-how—i.e. capabilities—shape actions. We illustrate how identity shapes an organization's recognition of action possibilities in its environment by a causal link from *identity maturity A* to the *perceived prevalence of environment and context A* in Figure 3. The constant *identity-based framing A* indicates the extent to which interpretation and decision making depend on identity instead of an unbiased processing of information. Often, this *framing the framing* process represents continuation of history. However, it also represents how identity tensions in a business organization can trigger changes in interpretations, leading the organization to try new actions. Such identity ten-

sions within the New York Port Authority led it to try new actions with regard to homeless people in its facilities (Dutton & Dukerich, 1991).

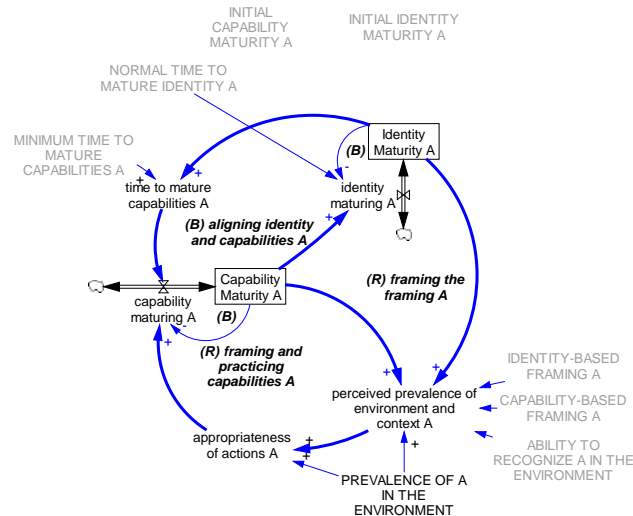


Figure 3: Framing the framing

2.4 Identity transition

We propose that the same structural relations among identity, capabilities, and organizational actions demonstrate how identity takes shape are active when identity changes. Organizational identity transition is connected with a phase of ambiguity in which organizations experience a “meanings void” (Gioia et al., 2013: 181–182). As an example, the New York Port Authority dealt with competing claims of responsibility towards generating profits and interacting with homeless people responsibly (Dutton & Dukerich, 1991). Ambiguity can also occur due to differences in internal and external image and the loss of a social referent (Corley & Gioia, 2004) or by a change or revision in orientation, when routines persist but new identity has not yet solidified (Tripsas, 2009). Furthermore, the example of a hospital showed that ambiguity existed in the interpretation of information and the future (Clark et al., 2010).

We argue that in a phase of identity transition the automatic nature of the feedback processes *framing and practicing capabilities* as well as *framing the framing* break down (Gioia et al., 2013), making the transition challenging. The causal diagram of Figure 3 suggests that the process breaks down in these possible ways: (1) The *perceived prevalence of environment and context A* changes as the inside or outside of the organization are changing, (2) *appropriateness of actions* decreases and (3) *capability maturity* drops.

Contrary to the expectation that organizational decision makers compare the organization’s capability and identity with what their environment requires and then direct their actions at closing a possible gap, previous research has shown this process to be much less rational. While organizations start to perceive a new trend, that their actions do not produce the desired results (Jay, 2013; Tripsas, 2009), or that there is customer or community dissatisfaction (Dutton & Dukerich, 1991), they are still much entangled in their identity. However, this dissonance may be sufficient to start explore, and develop capabilities and later an identity that has not existed before.

Instead of modeling identity transition as a rational comparison of organizational circumstances and environmental requirements, we model it as a framing- and practice-based process and thus duplicate the structure presented so far to signify the newly developing capability and identity B, shown in Figure 4. Both sub-models are connected by *effects* capturing how

mature identity and capability A delay the transition. This delay increases with the maturity of capability and identity A and with the difference between environment A and environment B. We represent environmental change, such as the growing focus on ethics in business or technological developments, by a change in the *prevalence of environment and context A and B*. Future research may include non-adaptive, but trend-setting innovations of market leaders. The *prevalence of environment and context A* starts at the value 1 and decreases to zero during quarters 40 to 60 over a period of 5 years¹ while at the same time the *prevalence of B in the environment* rises from 0 to 1. To some extent the organization misperceives and misinterprets this change, resulting in a biased *perceived prevalence of environment and context A and B* and low *appropriateness of actions*.

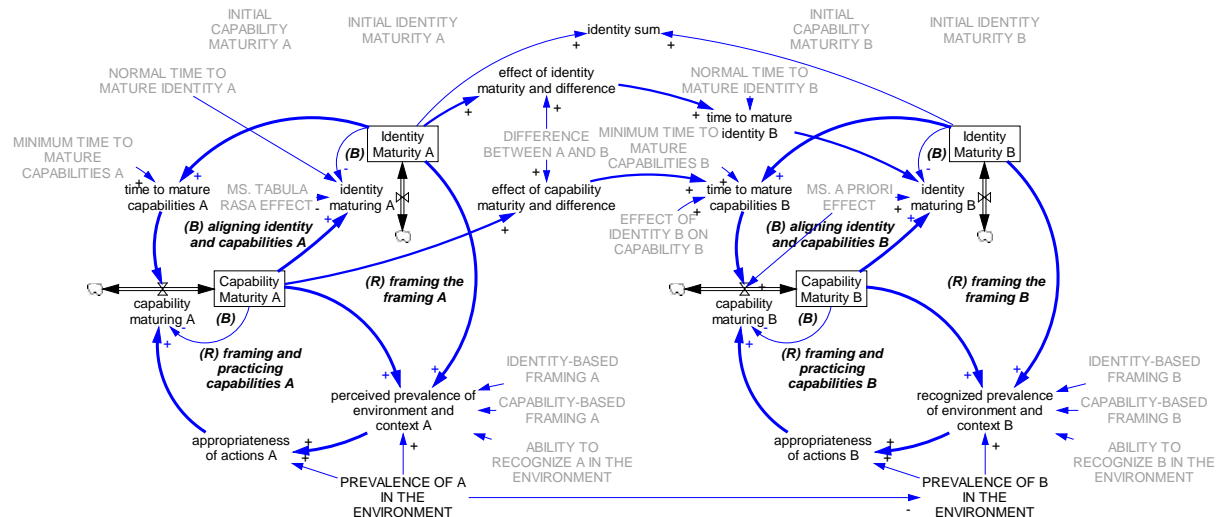


Figure 4: Full model

The model structure conceptually corresponds (Forrester & Senge, 1980: 213) to topics and variables discussed in the organizational literature, is dimensionally consistent, and it shows reasonable behavior in sensitivity analyses (Sterman, 2000: 830). It has been simulated over a period of 100 quarters in order to capture “enduring” identity dynamics and will be used for explanation and policy analysis.

3 Results: identity transition

3.1 Identity ambiguity

Our base run is characterized by the transition from the prevalence of A in the environment to the prevalence of B as described above. Figure 5 shows the dynamics of the corresponding identity transition in a focal organization. The base run suggests that identity ambiguity is characterized, first, by two competing identities as just described, and second, by a dip in total identity maturity. First, in the identity ambiguity phase the organization starts to recognize and that its actions do not work anymore to achieve goals, which results in the decrease of *capability maturity* and *identity maturity*, as shown by line 1 in Figure 5. At the same time, a new identity starts to emerge (line 2). Conflict is highest when lines 1 and 2 overlap. The organization is torn between two competing identities. Second, identity ambiguity is characterized by a dip in total identity maturity, i.e. by a dip in the sum of the individual identities which is greatest at time 63. This means, the organization is ‘lost’ between two directions, because the problems with the old strategy are recognized more quickly than the new identity

¹ We will analyze scenarios representing faster and slower developments as well.

can manifest. This causes an identity conflict phase which has also been recognized by other researchers (Corley & Gioia, 2004; Tripsas, 2009).

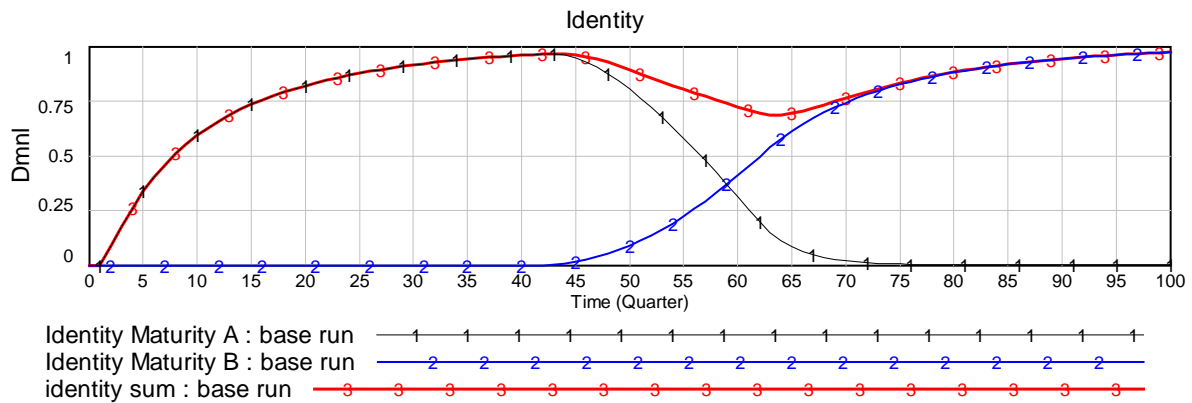


Figure 5: Identity dynamics

The decrease of the old identity depends on how long and where in the organization old capabilities continue to be used. Yet, managing identity transition can be important for organizational survival when fast identity transition is required, which is why we analyze the impact of change catalysts such as positive future image and new leadership.

3.2 Experimentation

In our model, the future image creation can be interpreted as organizational capability building, first mentally through the future image, and then by actual capabilities, routines, and further tools.. We thus transfer how experimentation changes individual brains (Grèzes & Decety, 2001) to the organizational level. The organization is still influenced by its immature capabilities but less so by its yet immature new identity B. As shown in Figure 6, to capture experimentation, we thus decreased the bias from identity (= *identity-based framing B*), set at 0.33 in the base run, to 0.1 and increased the ability to explore the new environment respectively (= *ability to recognize B in the environment*). A comparison of lines 3 and 4 demonstrates that experimentation lets identity mature more quickly and by comparison of lines 5 and 6 we see that the dip in the identity sum is less severe.

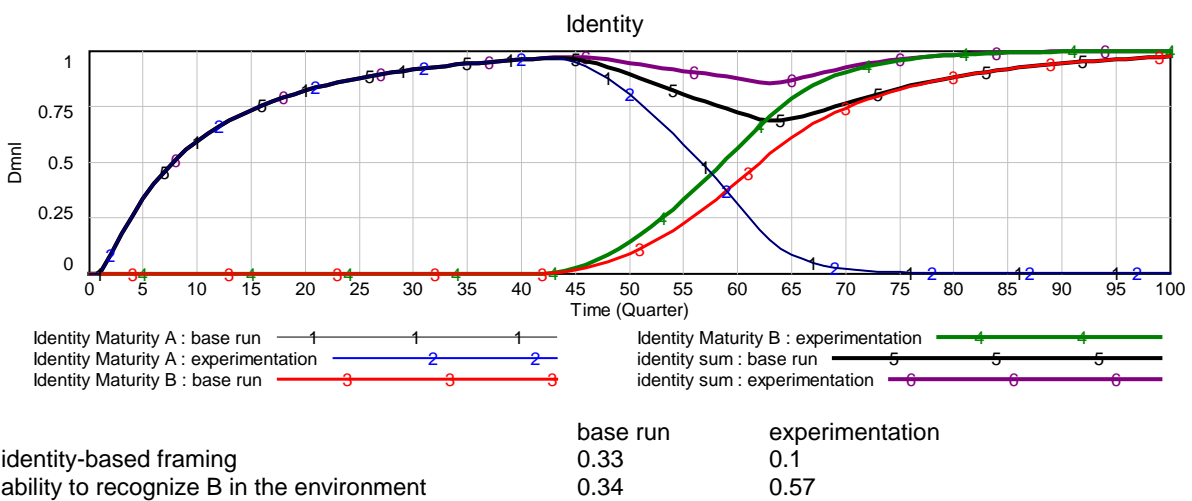
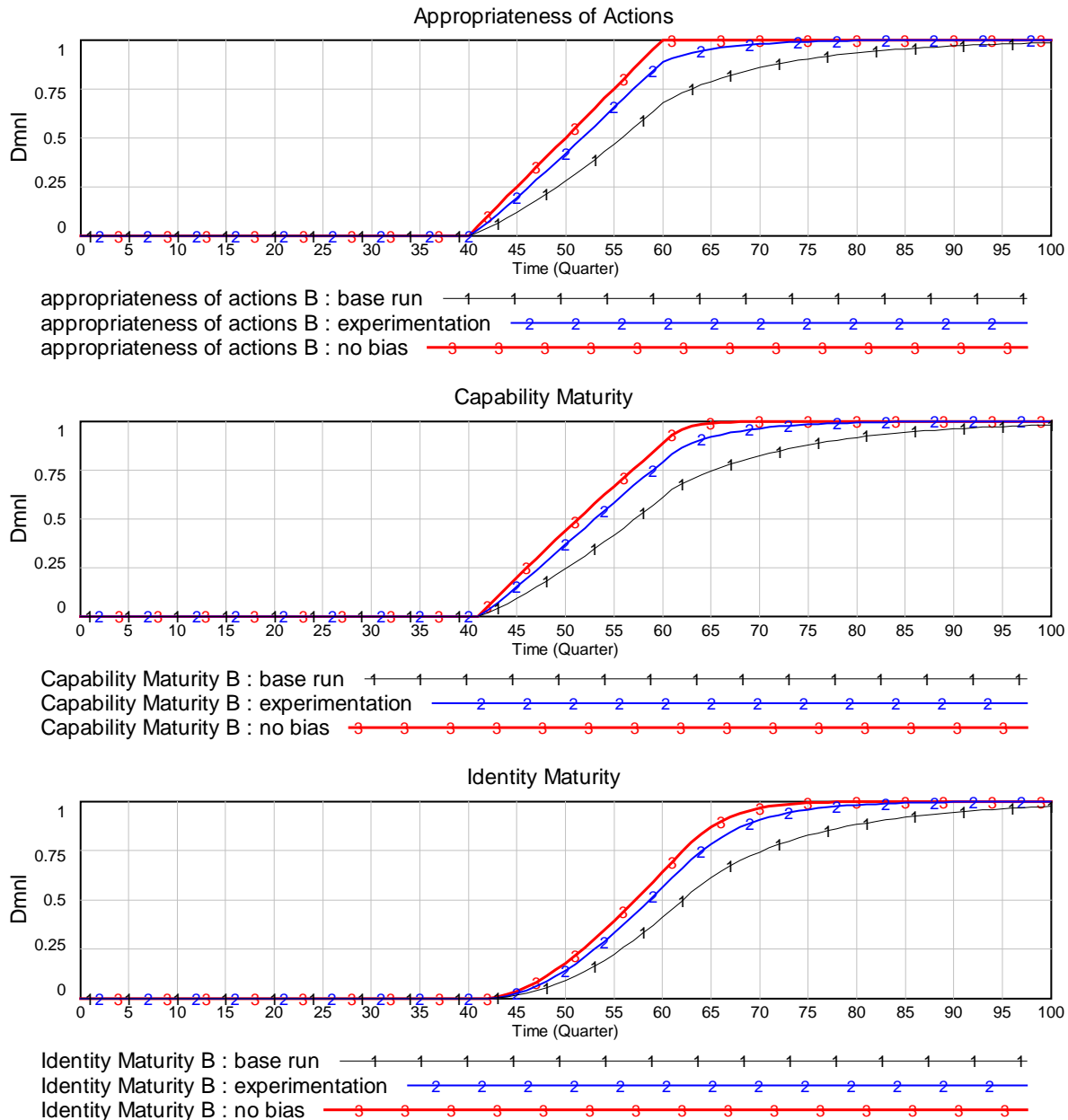


Figure 6: Experimentation

Leverage comes from identity rather than capabilities as experimenting irrespective of the still lacking *identity maturity B* leads to a faster transition than experimenting irrespective of the

lacking *capability maturity B*, shown in Figure 7. It compares the *appropriateness of actions B*, *capability maturity B* and *identity maturity B* for the base run, for the experimentation run, and for a run in which the organization is biased by neither identity nor capability. The simulation runs reveal that when the organization experiments to some extent on a new identity (i.e. *identity-based framing B* set to 0.1 instead of 0.33), it adapts to a new identity almost as quickly as when it is not biased by its past at all (i.e. both *identity-based framing B* and *capability-based framing B* set to 0 instead of 0.33). Identity represents the stronger lever because it is still better to be influenced by *low* capabilities than by *very low* identity. When the organization experiments, it will mature its new capabilities, positively affecting *identity maturity B*.



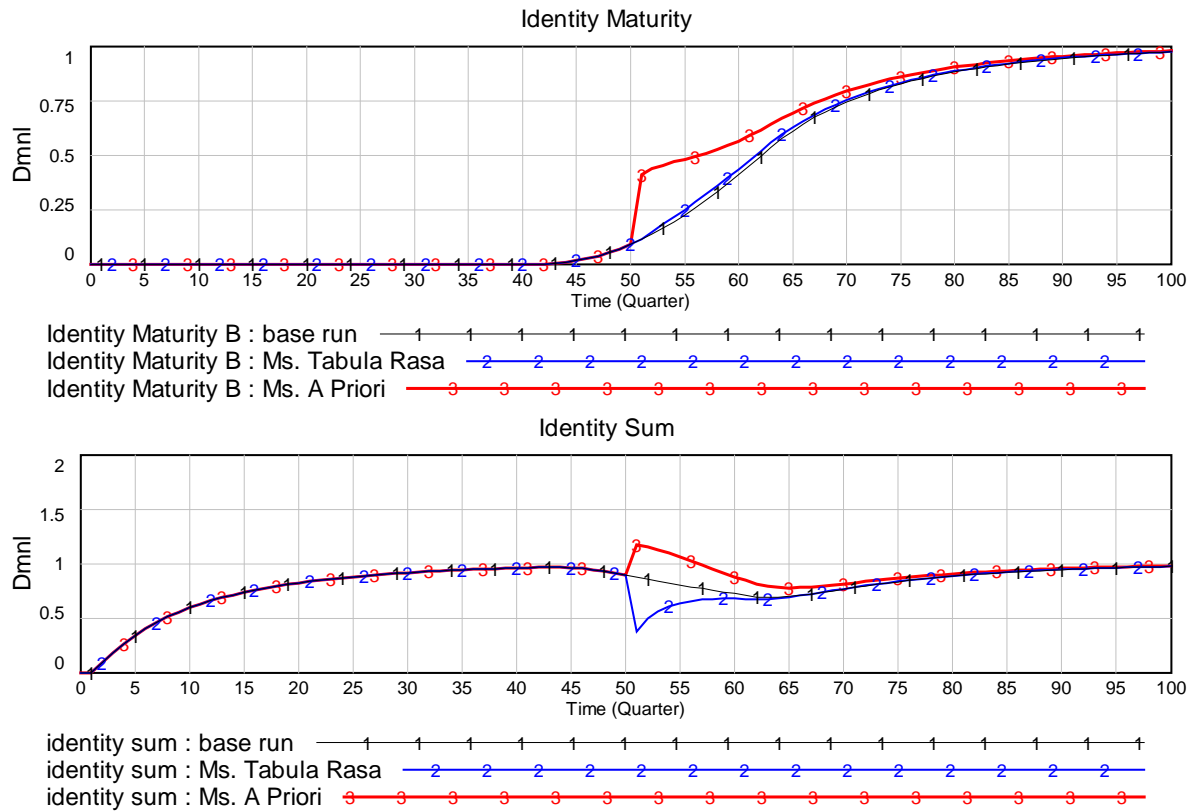
	base run	experimentation	no bias
capability-based framing B	0.33	0.33	0
identity-based framing B	0.33	0.1	0
ability to recognize B in the environment	0.34	0.57	1

Figure 7: Actions, capability, and identity

3.3 Diversity

In organizations exchanging leaders is an established practice for accompanying change. Leaders are considered capable of balancing between stability and transformation (Tushman & Romanelli, 1985) and they bring new perspectives into the organization (Sabherwal, Hirschheim, & Goles, 2001).

In our simulation, we will distinguish two kinds of new leaders, or two leaders with different approaches to changing organizational identity. Ms. Tabula Rasa (blank slate) disrupts existing technologies, hierarchies, roles, and responsibilities. We model this by a sharp decrease in *identity maturity A*. Ms. A Priori comes with appropriate capabilities and identity from another company. This we model by an increase in *identity maturity B* as well as in the *capability maturity B*, representing her vision and her situated expertise. Line 3 in Figure 8 shows that even a high increase of 0.3 in identity and capability maturity does have positive, but rather short- to medium-term results. Ms. A Priori is also able to prevent the dip in identity sum (line 3 in lower Figure 8), whereas Ms. Tabula Rasa is unsuccessful, not able to adapt the organizational identity more quickly (shown by comparison of lines 1 and 2 in upper Figure 8) and creating a severe dip in *identity sum*, leading to even higher ambiguity, and confusion (line 2 in lower Figure 8).



	base run	Ms. Tabula Rasa	Ms. A Priori
ms. tabula rasa effect	0	- 0.5	0
ms. a priori effect	0	0	0.3

identity maturing A = (Capability Maturity A - Identity Maturity A) / TIME TO MATURE IDENTITY A + PULSE(50, 1) * MS. TABULA RASA EFFECT

capability maturing B = (appropriateness of actions B - Capability Maturity B) / time to mature capabilities B + PULSE(50,1) * MS. A PRIORI EFFECT

identity maturing B = (Capability Maturity A - Identity Maturity A) / TIME TO MATURE IDENTITY A + PULSE(50, 1) * MS. A PRIORI EFFECT

Figure 8: Leaders

As the gap between an unbiased organization and one that interprets its environment based on accumulated capabilities and identity is more severe for rapid environmental transformations (see Figure 9), managing transitions through interventions becomes even more important after an abrupt environmental change.

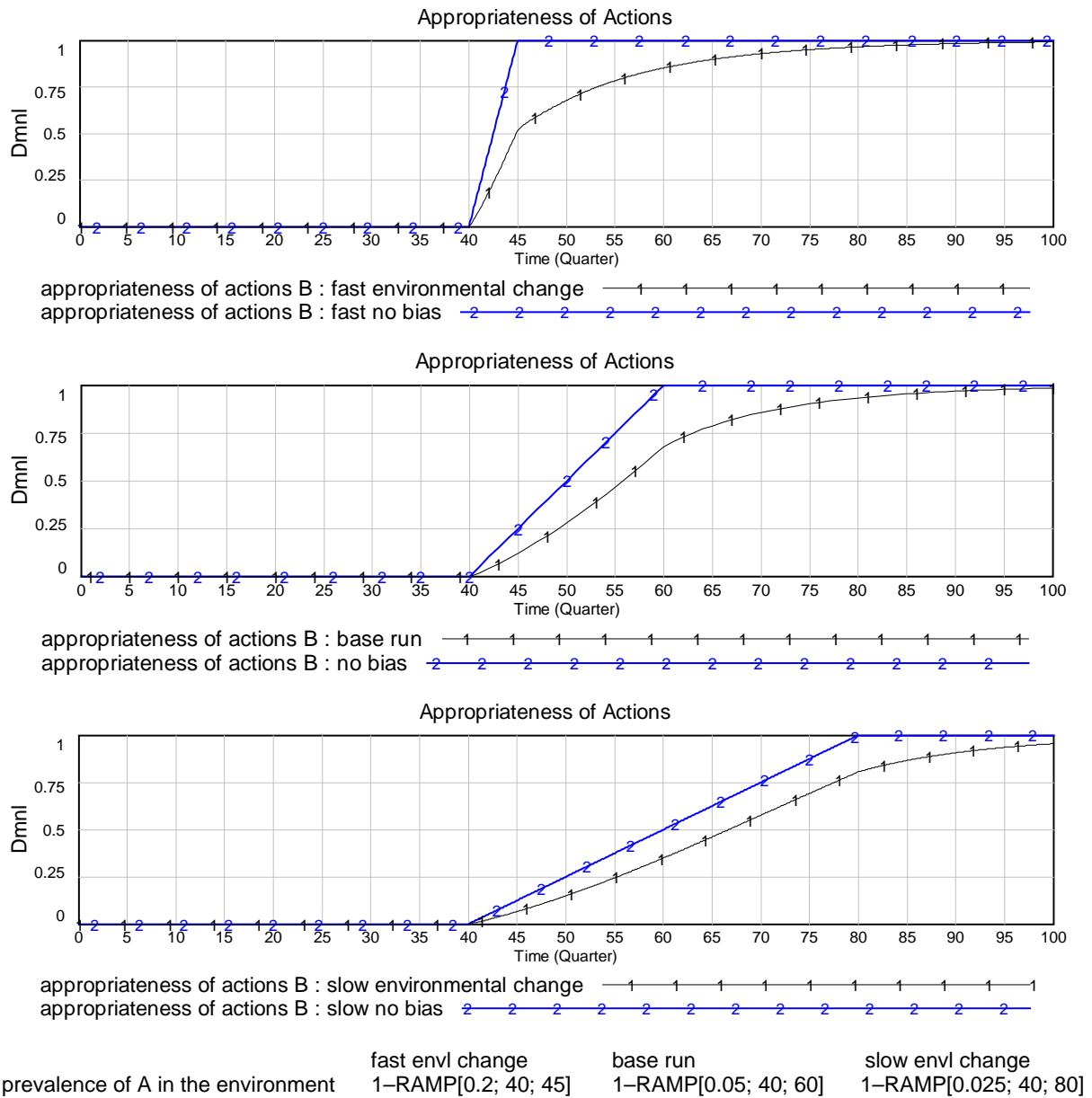


Figure 9: Different environmental scenarios

4 Discussion of contributions

4.1 Embeddedness of organizational change

The focus of this paper was the dynamic interplay of interrelated causal relationships of strategizing practices and framing processes in phases of organizational identity sustainment and transition. In comparison with literature which defines or correlates identity, framing, and strategic moves, this paper provides a dynamic, more nuanced process model of these elements and their relationships. It shows that organizational change is embedded in organizational identity, which in turn frames the framing of context, affecting routines and attention (Zimmermann & Black, 2012). Thus, linking identity sustainment and transition to the proposed three underlying processes is necessary for planning and executing organizational change. organizations evolve with the process of *aligning organizational identity and capabilities* and experimenting through the *framing and practicing capabilities* and *framing the fram-*

ing processes shown in Figure 3 and Figure 4 above. Understanding how organizations transform their identity and build capabilities helps understand organizational change.

Organizational actions are bound on organizational interpretations, but previous actions also constrain the realm of new actions an organization can envision. Starting to really move into a direction then opens new possibilities for further actions solidifying this direction. When this process appears to be very quick, the physical change is likely to have involved much mental simulation earlier and a stepwise building of a new direction.

4.2 Future research

Building on these feedback processes future research may include empirical work examining the narratives of people as they experiment with new organizational actions and develop new organizational identities. Identity transitions have been recognized mostly through case study research via interviews, archival data and letters to shareholders (e.g. Tripsas, 2009), but we may in fact be able to see how these processes play out over time across different parts of an organization. Such research would help characterize how to navigate successfully through it vs. unsuccessfully. The model presented here also serves as a starting point for further simulation or future theoretical development required to identify effective leverage points of identity transition. In a similar way as our model already represents different identities and sets of capabilities, our model might be adapted to explain phenomena at the individual or industry layer. It could be extended to represent inter-organizational relations and account for the development of collective frames at the industry level, extending Nadkarni and Narayanan's (2007: 690) work on how organizations develop collective assumptions about their context. Similarly, it could be used for studying identity transitions among individuals, either in business settings (e.g. Koerner, 2014) or in general contexts of learning, investigating how one set of learners develops new capabilities and transforms identity while others do not recognize the relevance of new material. By the current model's focus on, first, interrelated feedback structures that each describe an ongoing feedback process, and second, on the process of unfolding dynamics, our paper provides insight into processes at different levels and arouses curiosity for their application in different contexts.

Additionally, future research might use this model at the organizational level while recognizing the layering of this level. It might investigate how organizational members initiate innovation processes that transfer structural alignment and well-known cause-and-effect relationships (Grégoire et al., 2010) to new situations, but also situate and adapt them (Nag et al., 2007). Closely related, the current model may be extended to capture how identity transitions interact with the transfer of known cause-and-effect relationships to new contexts. This would help explore how companies such as Google can remain adaptive and constantly change their products and low-level capabilities without requiring changes in their high-level identity. It will therefore be interesting to investigate how possible concrete and abstract identities, focused on products vs. a benefit, affect the need for and the process of identity transitions.

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