Competitive Surprise: How Unexpected Moves

Shape Business Rivalry

ABSTRACT

We develop a process-based model of competitive surprise that explains how and when unexpected competitive moves create temporal advantage by impairing a rival's response. Drawing on the awareness–motivation–capability (AMC) framework and integrating insights from psychology, military strategy, and organization studies, the model specifies both the conditions that create surprise and the mechanisms through which it shapes rival response. In the pre-surprise period, detection and interpretation barriers, such as secrecy, irregular behavior, vague or deceptive communication, and limited rival intelligence, impede early warning and delay preparedness. In the post-surprise period, two opposing mechanisms, evaluation barriers and response incentives, jointly determine the speed and effectiveness of rivals' responses: evaluation barriers (e.g., decision interruptions, appraisal difficulties) constrain capability, while response incentives (e.g., curiosity, fear, anxiety) shape motivation. We develop propositions on how different types of surprise (novel, incongruent, and misleading) activate these mechanisms to produce distinct response outcomes. Our model contributes to (a) competitive dynamics research by embedding the temporal, cognitive, and emotional dimensions of surprise within the AMC framework, (b) first-mover advantage theory by explaining how psychological and informational asymmetries extend lead time, and (c) literature on organizational responses to unexpected events by integrating proactive and reactive perspectives of surprise.

Keywords:

Competitive Dynamics, Competitive Action, Competitive Surprise, Competitive Response

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Introduction

In military strategy, surprise attacks have long been recognized as decisive instruments of advantage. They can disable stronger opponents by catching them off guard, creating confusion, and reducing resistance (Handel, 1984; Kam, 1988). In business competition, surprising moves are equally common and strategically consequential. Firms often use abrupt price cuts, stealth product launches, or unconventional alliances to disrupt established patterns of rivalry.

Yet despite its prevalence, the role of surprise in business competition remains poorly understood. Strategy scholars argue that the ability to surprise rivals is central to dynamic competition. Firms that launch innovative actions can disrupt the status quo and gain temporary advantages (D'aveni, 1994; Ferrier & Lee, 2002; Miller & Chen, 1996a; Smith, Ferrier, & Ndofor, 2001; Young, Smith, & Grimm, 1996). However, innovation and surprise are not synonymous. Innovation reflects the novelty of an action, while surprise depends on its *unexpectedness to rivals*. Some innovative actions are anticipated and thus not surprising, whereas familiar, noninnovative moves can be highly surprising when their timing, magnitude, or location diverge from expectations. Despite this distinction, research still offers little insight into what makes an action surprising or how surprise shapes rivalry.

Scholars of organization theory have studied surprise more deeply but mainly from the perspective of the surprised party. This literature explains how organizations react to unexpected events such as natural disasters, terrorist attacks, or hostile takeovers, why they fail to detect warning signals, and how they learn from crises (Ansoff, 1975; Bechky & Okhuysen, 2011; Cunha, Clegg, & Kamoche, 2006; King, 1995; Pearson & Clair, 1998). However, by centering on those who experience rather than create surprise, this research leaves open key questions: How do firms deliberately launch competitive surprises, and how do such actions hinder or motivate rival responses?

To date, there has been no comprehensive effort to model competitive surprise or identify its sources, mechanisms, and outcomes. This omission matters because surprise directly affects the core

drivers of rival response, and indirectly the capacity to gain competitive advantage. According to the awareness–motivation–capability (AMC) framework, competitive response occurs when rivals are aware of an attack, motivated to respond, and capable of doing so (Chen, 1996; Chen & Miller, 2012). Competitive surprise can distort awareness, mislead rivals about a threat's urgency, reduce decision-making capacity, and delay effective response (Brodin, 1978; D'aveni, 1994; Handel, 1984; Lampel & Shapira, 2001). While surprise may also spark curiosity and engagement that speed response (Loewenstein, 2019; Vogl, Pekrun, Murayama, Loderer, & Schubert, 2019), it can trigger fear or anxiety that impairs judgment and slows action (Meyer, Reisenzein, & Schützwohl, 1997; Noordewier, Topolinski, & Van Dijk, 2016; Sala, Do, Harrison, & Bartunek, 2025).

In short, while competitive surprise has been central to military and psychological research, its strategic role in business rivalry remains undertheorized. This paper addresses that gap by developing a model of competitive surprise that links its causes, mechanisms, and outcomes.

Our study advances theory in three ways. First, we introduce the concept of *competitive surprise,* an unexpected, firm-initiated event that catches rivals off guard and alters the dynamics of rivalry and identify its types and sources. We focus on *firm-initiated competitive events* rather than exogenous shocks, extending prior research that conceptualizes surprise as a *reactive* experience of individuals (Sala et al., 2025) and organizations (Bechky & Okhuysen, 2011; Cunha et al., 2006; Pearson & Clair, 1998) to a *proactive mechanism* shaping interfirm rivalry.

Second, we integrate insights from military studies, psychology, and organization theory with competitive dynamics research to develop a *multi-stage model* of competitive surprise. The model explains how *pre-surprise* mechanisms (detection and interpretation barriers) determine when rivals become aware of an attack and how *post-surprise* mechanisms (evaluation barriers and response incentives) shape their reactions. This process perspective extends competitive dynamics research and broadens the AMC framework to incorporate the temporal, cognitive, and emotional dynamics of competition (Chen & Miller, 2012, 2015).

Third, we develop propositions linking *pre-surprise* barriers (organizational secrecy, competitive irregularity, vague or deceptive communication, and rivals' competitive intelligence) to distinct types of competitive surprise: *novel*, *incongruent*, and *misleading.* We then theorize how each type triggers specific *post-surprise* response barriers and incentives that jointly determine the *speed* and *effectiveness* of rival responses.

In summary, our model provides a theoretical foundation for future empirical research on how firms leverage competitive surprise to outmaneuver rivals and how those rivals can better detect, interpret, and respond to surprising moves.

THE CONCEPT OF COMPETITIVE SURPRISE

Surprise in Prior Research

Scholars across management, military studies, and psychology have long examined the concept of surprise. While definitions vary, they converge on a core element: the occurrence of an *unexpected event*. Beyond this shared basis, conceptualizations differ along three dimensions: the nature of experience, the level of analysis, and the functional role of surprise.

The nature of experience. Some view surprise as a *cognitive state*: a signal of violated expectations that interrupts processing and triggers causal search and schema revision (Meyer et al., 1997; Ortony & Turner, 1990). Others treat it as an *emotion* involving subjective feeling, arousal, and distinct expression (Neta & Kim, 2023; Reisenzein, Bördgen, Holtbernd, & Matz, 2006). Surprise can evoke positive affect such as curiosity or excitement, or negative affect such as fear or anxiety, depending on appraisal (Noordewier et al., 2016; Sala et al., 2025). Consequently, some researchers view surprise as an ambivalent cognitive–affective state that links appraisal and emotion (Loewenstein, 2019; Reisenzein, Horstmann, & Schützwohl, 2019; Sala et al., 2025).

Levels and objects of surprise. Psychology research emphasizes the internal, *intrapersonal* experience, focusing on how expectation violations redirect attention and motivate sensemaking (Louis, 1980). Management and military research view surprise as an external event that disrupts plans or routines and becomes "surprising" through individual or collective appraisal (Cunha et al., 2006; Handel,

1984; Lampel & Shapira, 2001). Event system theory formalizes this view, describing events by their novelty, disruption, and criticality, which determine their impact (Morgeson, Mitchell, & Liu, 2015). Thus, surprise can occur at individual, team, or organizational levels depending on who appraises the event and how sensemaking unfolds.

The functional role of surprise. Surprise may be *disruptive*, interrupting cognition, coordination, and control (Bechky & Okhuysen, 2011; Weick & Sutcliffe, 2001), or *adaptive*, redirecting attention, accelerating learning, and fostering exploration (Meyer et al., 1997; Vogl et al., 2019). Strategy research depicts surprise as a competitive weapon used to disrupt the status quo, confuse rivals, and delay their responses (Andrevski et al., 2022; D'aveni, 1994; Ferrier & Lee, 2002; Katila et al., 2012). In this sense, surprise functions both as a *competitive tool firms deploy and as a state rivals must manage.*

Defining Competitive Surprise

Building on the broader notion of surprise as an unexpected event that triggers cognitive, emotional, and behavioral reactions, we focus on its role in business competition. Our aim is to explain how and under what conditions firms create competitive surprises and influence rival responses. We define *competitive surprise* as an unexpected, firm-initiated event that catches rivals off guard and alters the dynamics of rivalry. This definition extends surprise from a reactive experience to a *proactive* mechanism in interfirm competition.

First, our definition separates competitive surprise from the cognitive, emotional, and organizational *reactions* it evokes. This distinction matters because our theory examines how a firm's surprising move affects rivals' awareness, motivation, and capability to respond. Conflating the event with its effects would make the relationship non-falsifiable. Thus, competitive surprise refers to the initiating event that triggers, but is conceptually separate from, subsequent perceptual or behavioral reactions. Second, we focus on *competitive events*, a subset of observable, firm-driven actions rather than exogenous shocks such as natural disasters or boycotts (Morgeson et al., 2015; Pearson & Clair, 1998). Competitive surprises are inherently relational: whether deliberate or emergent, they elicit competitor responses that reshape the scope and dynamics of rivalry. Finally, competitive surprises can occur at both

strategic and tactical levels, ranging from major commitments such as market entry or acquisitions to short-term moves like pricing or promotion (Chen & MacMillan, 1992; Chen, Smith, & Grimm, 1992). What makes them surprising is the *deviation from rivals' expectations*, not the type or scale of action. Both actions and purposeful inactions can produce surprise (Andrevski & Miller, 2022; Andrevski, Miller, Le Breton-Miller, & Ferrier, 2022).

Types of Competitive Surprises

We identified three broad types of competitive surprises: novel, incongruent, and misleading events.

Novel competitive surprises

The first type, *novel surprises*, refers to previously unimaginable events that fall outside prior knowledge or experience (Sala et al., 2025). Such events generate little or no warning because they lie beyond a rival's field of vision or outside the mental models managers use to interpret information and guide action (Hambrick & Mason, 1984; Kam, 1988; Nadkarni & Narayanan, 2007). Rivals are caught off guard because scanning and interpretation systems capture only a small fraction of potential signals (Daft & Weick, 1984), and limited cognitive schemas further constrain attention and sensemaking (Bogner & Barr, 2000; Meyer et al., 1997). Surprise occurs when an event exceeds these mental representations of what is possible (Lorini & Castelfranchi, 2007). In short, a novel competitive surprise is a *bolt from the blue*, an attack that falls entirely outside a rival's existing interpretive frame (Brodin, 1978; Weick & Sutcliffe, 2001).

Two main sources generate novel competitive surprises: *entrepreneurial discoveries* and *covert activities*. Entrepreneurial discoveries arise from recognizing unimagined or unnoticed opportunities (Kirzner, 1973; Schumpeter, 1934). "Surprise results from disrupting the status quo, and when companies build new temporary advantages, the new advantages that create the most surprise also create the most advantage" (D'aveni, 1994: 273). This "Austrian" view of competition emphasizes that the discoveries of new products, services, technologies, or markets can move firms in unpredictable directions, surprising competitors. For example, DuPont's introduction of polyester fiber into the apparel market blindsided the cotton spinners who then dominated the textile industry (Markman, Gianiodis, & Buchholtz, 2009: 426).

Covert activities also create novelty by concealing intentions and capabilities. Some firms exploit "their relative obscurity to their own advantage by engaging in covert actions"(Chen & Hambrick, 1995: 460), some of which *"*competitors do not even notice, because the adjustments are largely internal for the firm making them*"* (Porter, 1980: 93). For example, in 1973, while major U.S. automakers lobbied Congress to delay Clean Air Act standards, Honda's CEO stunned the industry by unveiling the CVCC engine, which already met the requirements. Years of covert development in clean-engine technology allowed Honda to operate outside established industry frames, catching competitors off guard and forcing them to license its technology to comply with revised standards.[1,2]. Other firms disguise their knowledge via concealment tactics such as withholding information or adding complexity, limiting rival's awareness and imitation capacity (Sharapov & MacAulay, 2022). Apple's tightly compartmentalized "Project Purple" hid the iPhone's capabilities until launch, amplifying surprise among handset makers. Former Apple marketing managers admitted to using "controlled leaks" with trusted media to spark interest without revealing details.[3] (Hannah, McCarthy, & Kietzmann, 2015).

Incongruent competitive surprises

The second type, incongruent surprises, occurs when an event deviates from rival expectations, defined as "beliefs about [events] that will occur or will be revealed in the future" (Pinquart et al., 2021: 321). Unlike novel events that arise from *backward processing,* where rivals first experience an unexpected event and then make sense of it, incongruent events stem from *forward-looking processing*, where expectations exist in advance but are violated by what actually occurs (Kahneman & Miller, 1986). Rivals are surprised by the discrepancy between what they anticipate and what they observe, for example, when an expected action differs in kind, magnitude, timing, location, or likelihood.

First, rivals can misjudge the *likelihood* of an attack. They may anticipate a potential move but dismiss it as improbable because they misunderstand the attackers' goals, capabilities, or intentions. For

[1] https://www.osti.gov/biblio/6971820

[2] https://wondery.com/shows/business-wars/episode/5296-toyota-vs-honda-motor-city-massacre/ [25:12].

[3] https://fortune.com/article/the-secrets-apple-keeps/

example, in May 2024, ahead of China's annual "618" shopping festival, Apple surprised competitors by cutting iPhone prices by 21–24%. This unprecedented move showed how a firm viewed as unlikely to lower prices could be misjudged in its strategic intent. Similarly, rivals often overlook the rising capabilities of seemingly weak firms that later launch unexpected attacks (Kam, 1988; Porter, 1980). Second, *timing* surprises occur when a competitor acts at an unexpected time; they might launch action much earlier or later than is customary, catching rivals off guard. Amazon's launch of Prime Day in July 2015 created a major sales event outside the traditional Q4 Black Friday cycle[4]. Rivals may also underestimate a firm's speed in developing capabilities, as when General Motors dismissed Tesla as *"*just a bunch of engineers playing with laptop batteries.*"*[5] Third, *location* surprises occur when attacks target unexpected markets or shift rivalry across value chain segments (Chen et al., 1992; Handel, 1984; Kam, 1988; McGrath, Chen, & MacMillan, 1998; Whaley, 1969). For example, Amazon's 2017 acquisition of *Whole Foods* marked its sudden move into brick-and-mortar grocery retail, sending shock waves through the industry[6]. Fourth, *type* surprises arise when firms initiate unexpected action types or break industry norms and familiar competitive rhythms (Andrevski et al., 2022; Ferrier & Lee, 2002; Miller & Chen, 1996a; Rindova et al., 2010). After years of insisting it would be ad-free, Netflix reversed course in 2022 and accelerated the launch of an ad-supported subscription tier[7]. Tesla's 2014 decision not to enforce its EV patents against good-faith users departed from industry norms, surprising automakers and altering expectations about EV adoption[8]. In summary, incongruent competitive surprises arise not from the absence of expectations, but from their violation. They exploit faulty assumptions about whether, when, where, and how rivals will act.

Misleading competitive surprises

The third type, misleading surprises, occurs when a firm creates false expectations and later acts contrary to them. Whereas incongruent events violate existing beliefs, misleading events construct new, but false

[4] https://www.reuters.com/article/technology/amazon-says-prime-day-orders-beat-last-years-black-friday-idUSKCN0PQ29J/
[5] https://markets.businessinsider.com/news/stocks/nikola-steve-girsky-tesla-elon-musk-gm-battery-ev-auto-2023-9
[6] https://www.nytimes.com/2017/06/16/business/dealbook/amazon-whole-foods.html
[7] https://theconversation.com/ads-are-coming-to-netflix-soon-heres-what-we-can-expect-and-what-that-means-for-the-streaming-industry-190236
[8] https://www.theguardian.com/technology/2014/jun/13/tesla-open-source-technology?utm_source=chatgpt.com

expectations through deceptive signals that set the stage for an unexpected move (Wanasika & Adler, 2011). Such signals include both actions and public announcements intended to mislead rivals and catch them unprepared (Handel, 1982; Heil & Robertson, 1991; Moore, 1992; Porter, 1980).

These deceptive tactics can take several forms, including feints, gambits, and bluffs. *Feints* involve deliberate actions in markets where the firm has little or no real interest, intended to divert rivals' attention and resources from the main arena (Hendricks & McAfee, 2006; Stalk, 2006). For instance, Ralston launched its premium Pro Plan line in pet shops, prompting rivals like Iams and Hill's to upgrade offerings in that segment, while Ralston's real goal was to dominate the more profitable supermarket channel (McGrath et al., 1998). *Gambits* are strategic withdrawals or sacrifices that mislead rivals about a firm's intentions (McGrath et al., 1998). In a surprising gambit, IBM exited the PC market in 2004 by selling its low-margin computer division to Lenovo[9]. This apparent retreat from a commoditized segment allowed IBM to redeploy attention and resources toward higher-value domains such as servers, software, and consulting services. Through its partnership with Lenovo, IBM also gained early access to China's rapidly growing technology market, preempting many U.S. tech giants. *Bluffs* rely on misleading communication or symbolic actions that cause rivals to treat false information as credible (Guidice, Alder, & Phelan, 2009). For example, firms may use "decoy patents" to steer competitors toward unprofitable research areas (Langinier, 2005: 522). or file multiple patents, as Kabi and Genentech did, to conceal their most effective drug-production methods (Guidice et al., 2009). In summary, misleading competitive surprises such as feints, gambits, and bluffs create false yet credible expectations that distort rivals' interpretations.

A MODEL OF COMPETITIVE SURPRISE

The strategic value of competitive surprise lies in its potential to impair the speed and effectiveness of rivals' responses. Our model distinguishes two stages: *pre-surprise* and *post-surprise*. In the pre-surprise stage, *detection* and *interpretation barriers* constitute the *enabling conditions* of competitive surprise.

[9] https://www.cnet.com/tech/computing/ibm-sells-pc-group-to-lenovo/

When these barriers are low or absent, the event ceases to be surprising because rivals can anticipate and interpret the move in advance. When they are high, rivals are caught unprepared, affecting response speed and quality. Once a surprise occurs, rival reactions are shaped by two countervailing forces: *evaluation barriers* and *response incentives*. Figure 1 outlines this process, explained below.

Insert Figure 1 here

Response barriers and incentives shape rivals' *awareness, motivation,* and *capability* (Chen, 1996). Detection and interpretation barriers undermine awareness of a surprising action (Marcel, Barr, & Duhaime, 2011). To respond quickly, rivals must begin *preparing* before an attack occurs; the fewer and weaker the warning signals, the less ready they are (Brodin, 1978). Detection barriers include *organizational secrecy, competitive irregularity,* and *rivals' limited competitive intelligence capacity.* When warning signals exist, interpretation barriers such as vague or deceptive communication distort understanding of an event's meaning or urgency (Pezzo, 2003). Together, these barriers prevent anticipation or comprehension of a competitive surprise, reducing readiness to decide when or how to respond. In our model, this corresponds to the pre-surprise period between the *decision to develop a surprise* (DS) and the *competitive surprise* (CS).

Once a competitive surprise occurs (CS), the interplay between *evaluation barriers* and *response incentives* shape the rival's motivation to act. On one hand, surprise can trigger *negative emotions* like distress, fear, or anxiety, leading to cognitive freezing (Camras et al., 2002; Noordewier et al., 2016), interrupt decision processes (Meyer, Niepel, Rudolph, & Schützwohl, 1991; Schützwohl & Borgstedt, 2005), and heighten uncertainty that impairs response speed and quality. On the other hand, surprise can also evoke *positive emotions* like curiosity, attentiveness, and engagement, which can motivate a faster response (Foster & Keane, 2015; Loewenstein, 2019; Mellers, Schwartz, & Ritov, 1999). In Figure 1, these opposing forces influence the *decision to respond* (DR). Their relative strength varies by the type of competitive surprise, determining the *speed* and *quality* of response. Figure 2 illustrates the predicted response outcomes for each type and their primary enabling conditions.

Insert Figure 2 here

We first examine the *pre-surprise period* (t_1–t_2 in Figure 1), showing how detection and interpretation barriers create the enabling conditions for competitive surprise. We then turn to the *post-surprise period* (t_2–t_3 in Figure 1) to explain how different combinations of evaluation barriers and response incentives influence the effect of each type of competitive surprise on response speed and quality (Figure 2).

PRE-SURPRISE PERIOD AND RIVAL RESPONSE

In the pre-surprise period, a rival's ability to detect and interpret early signals determines whether an event becomes surprising, not how fast or effectively it will respond. Barriers such as organizational secrecy, irregular competitive behavior, and vague or deceptive communication reduce detection and interpretation capacity, *enabling* competitive surprise. Limited competitive intelligence capacity also functions as a rival-based detection barrier.

Detection Barriers

Organizational Secrecy

Organizational secrecy refers to intentional concealment of knowledge to prevent competitive spillover (Borpujari, 2025). It enables competitive surprise by limiting rivals' access to advance warning and increasing the chance they are caught unprepared. The unexpectedness of an event depends on the availability and clarity of pre-attack cues: from none to weak signals or partial alerts (Ansoff, 1975; Handel, 1982). Because organizational scanning systems are inherently limited (Daft & Weick, 1984), secrecy further reduces the visibility and diagnosability of such cues, lowering early detection probability (D'aveni, 1994).

Within the AMC framework (Chen, 1996), secrecy impairs *awareness* by creating detection barriers that delay recognition and sensemaking (Brodin, 1978; Pezzo, 2003). Firms maintain secrecy through cultural and structural mechanisms such as confidential information protection rules and norms (Hannah & Robertson, 2015) and concealment tactics such as cloaking/tagging, feinting, obfuscating, and repackaging to minimize observable traces (Handel, 1982; Sharapov & MacAulay, 2022; Wirtz, 2004).

Secrecy is common across industries and often preferred to patenting because it is faster, cheaper, and more effective at preventing competitive spillover (Borpujari, 2025; Cohen, 2010).

Secrecy ranges from complete concealment to partial disclosure. *Complete secrecy*, achieved through tight compartmentalization, is most critical for *novel surprises* since even small leaks can prompt anticipatory sensemaking and reduce unexpectedness (Borpujari, 2025; Kam, 1988; Lorini & Castelfranchi, 2007; Meyer et al., 1997; Nadkarni & Narayanan, 2007). It is particularly effective for protecting complex, tacit, or radical innovations such as those underlying novel surprises (Anton & Yao, 2004; Moser, 2012).

Partial secrecy, relying on selective disclosure and designed obscurity to shape outsiders' inferences (Sharapov & MacAulay, 2022), suits *misleading surprises* that steer rivals toward false expectations (Wanasika & Adler, 2011). In contrast, *incongruent surprises* depend on managing when and how intentions are revealed, not so much on concealing the move's existence. Because rivals typically recognize a firm's capabilities, the surprise arises from violating expected execution patterns or timing rather than from secrecy about action-development capabilities (Chen & MacMillan, 1992).

> ***Proposition 1a****: The presence of organizational secrecy enables competitive surprise by limiting or manipulating rivals' access to early warning signals.*
>
> ***Proposition 1b****: Complete secrecy is most critical for novel surprises, partial secrecy for misleading surprises, and low secrecy for incongruent surprises.*

Rival Competitive Intelligence Capacity

A rival's competitive intelligence capacity (CIC), defined as the ability to identify and process early signals of competitor activity, reduces the likelihood of competitive surprise. Competitive intelligence systems function as early-warning mechanisms that collect and integrate competitive information from sources such as field observations, public disclosures, and informal networks (Calof & Wright, 2008; Porter, 1980; Wright, Eid, & Fleisher, 2009). Their goal is not to eliminate surprise but to lessen the chance that rivals are caught completely unprepared.

By broadening the rival's perceptual field, CIC enhances the *awareness* component of the AMC framework (Chen, 1996), enabling firms to detect weak or ambiguous signals preceding competitor

moves. Systematic tracking of resource shifts, personnel changes, and alliance formations improves early detection of preparatory actions (Montgomery & Weinberg, 1998). Conversely, limited intelligence capacity narrows scanning, obscures signals, and extends the interval between the attacker's decision to develop a surprise (DS) and the rival's awareness of it (CS in Figure 1). Research on crisis management supports this logic: organizations with strong detection systems identify anomalies earlier and mobilize responses faster (Pearson & Clair, 1998; Pearson & Mitroff, 1993).

Lack of robust intelligence is most consequential for *novel surprises*, which emerge outside established schemas. Effective systems can detect unfamiliar or weak signals that might otherwise go unnoticed, providing cues that reduce unexpectedness (Kam, 1988; Lorini & Castelfranchi, 2007; Nadkarni & Narayanan, 2007). In contrast, for *incongruent* and *misleading* surprises, the challenge is interpretation rather than detection: signals may be captured, but their meaning or truth must still be discerned (Kahneman & Miller, 1986; Wanasika & Adler, 2011). Thus, limited intelligence capacity is less critical for these types.

> ***Proposition 2a:*** *Lower levels of rival competitive intelligence capacity enable competitive surprise by weakening detection of early warning signals.*
>
> ***Proposition 2b:*** *Lower levels of rival competitive intelligence capacity are more critical for novel surprises than for incongruent or misleading surprises.*

Irregular Competitive Behavior

Rivals form expectations about a firm's future moves by identifying temporal and structural regularities in its past actions. Predictable rhythms of competitive behavior help rivals anticipate moves and prepare countermeasures (Ferrier, Smith, & Grimm, 1999; Nadkarni & Chen, 2014). In contrast, firms that display *irregular* competitive behavior, marked by frequent shifts in order, pace, or variety, erode these expectations and increase unpredictability (D'aveni, 1994; Ferrier & Lee, 2002; Rindova et al., 2010). Such irregularity obscures patterns and reduces rivals' ability to detect early warning signals.

Irregular rhythms disrupt rivals' learning and forecasting accuracy. Organizations rely on repetition to encode routines and build predictive schemas (Haunschild & Miner, 1997; March, 1991). Constant changes in timing and composition create temporal uncertainty, leaving rivals unable to

anticipate when or how the next move will occur (Klarner & Raisch, 2013; Kunisch, Bartunek, Mueller, & Huy, 2017). This irregularity fragments attention and weakens the effective allocation of scanning resources (Nadkarni & Barr, 2008; Ocasio, 1997). Because rivals depend on continuity to forecast actions, irregularity disrupts coherence, undermines foresight, and delays preemptive responses (Lee, Busenbark, Withers, & Zajac, 2024). Such unpredictability forces rivals into a reactive posture, lengthening the time between a surprising move and their response. Within the AMC framework (Chen, 1996), irregularity heightens awareness barriers by weakening the predictive value of past behavior and reducing sensitivity to weak signals.

The enabling effect of irregularity is strongest for *incongruent surprises*, which contradict existing expectations. In these cases, rivals continually revise predictions, and irregularity undermines their ability to forecast, widening the gap between expected and actual actions (Kahneman & Miller, 1986; Wanasika & Adler, 2011). For *misleading surprises*, irregularity plays a secondary role by adding uncertainty that may support deception. For *novel surprises*, where schemas are absent, irregularity adds little incremental effect because unpredictability already stems from novelty.

> ***Proposition 3a****. Competitive irregularity enables competitive surprise by increasing unpredictability and reducing rivals' ability to detect early warning signals.*
>
> ***Proposition 3b****. Competitive irregularity is most critical for incongruent surprises, moderately important for misleading surprises, and less relevant for novel surprises.*

Interpretation Barriers

Vague Language

Vague language defined as "the use of linguistic means to make communication less precise in meaning" (Guo, Yu, & Gimeno, 2017: 2074), makes it harder for rivals to interpret information relevant to competitive decisions. Effective interpretation requires managers to see through the eyes of rivals (Chen & Miller, 2012: 152). When firms use ambiguity strategically, they conceal intent, preserve flexibility, and create uncertainty about what actions they will take and when. Even when early signals are detected, vague communication prolongs sensemaking and decision processes (Guo et al., 2017).

Strategic communication is a key signaling mechanism through which firms convey intentions (Heil & Robertson, 1991; Moore, 1992; Porter, 1980). Because interpretations shape perceptions of motives and likely behavior (Sobel, 2019), linguistic ambiguity weakens clarity and invites misinterpretation (Benford & Snow, 2000; Scheufele, 1999). Ambiguity may arise from word choice, syntax, or context (Dulek & Campbell, 2015). By modifying linguistic distance and temporal framing, firms influence how rivals perceive uncertainty and urgency, often leading them to discount future risks and delay responses (Nadkarni, Pan, & Chen, 2018; Keren & Roelofsma, 1995). Ambiguous cues tend to reinforce prior beliefs, causing managers to misread intentions and underestimate response urgency (Kahneman, 2013; Kam, 1988). Within the AMC framework (Chen, 1996), vague language heightens interpretation barriers by extending sensemaking.

Language ambiguity is especially consequential for *incongruent* and *misleading* surprises, where rivals already hold expectations or encounter deceptive cues. In such settings, vagueness intensifies confusion, obscures true signals, and slows interpretation (Guo et al., 2017; Wanasika & Adler, 2011). For *novel* surprises, where expectations are absent, vague language is less critical.

> ***Proposition 4a.*** *Vague language enables competitive surprise by increasing interpretation ambiguity and reducing rivals' ability to infer attacker intentions.*
>
> ***Proposition 4b.*** *The presence of vague language is more critical for incongruent and misleading surprises than for novel surprises*.

Deceptive Communication

Deceptive communication differs from secrecy and vagueness by *altering* rather than withholding information. It intentionally shapes rivals' perceptions through statements, narratives, selective disclosures, or symbolic cues, creating false beliefs and diverting attention (Wanasika & Adler, 2011; Whaley, 1982). Under bounded rationality and uncertainty, such messaging exploits limits in rivals' information processing, leading them to misread signals and prepare for the wrong contingencies (Pech & Stamboulidis, 2010). By shaping beliefs about whether, when, where, or how an action will occur, deception forces rivals to interpret misleading cues, delaying accurate understanding (Guidice et al., 2009; Kam, 1988; McGrath et al., 1998; Pehlivan, Berthon, Hughes, & Berthon, 2015; Stalk, 2006). Deceptive

communication includes public statements, narratives, and selective framing that redirect attention and mislead rivals about a firm's intent or readiness (Crawford, 2003; Dulek & Campbell, 2015; Guo et al., 2017; Heil & Robertson, 1991; Moore, 1992). These tactics enhance surprise by providing plausible but wrong explanations (Joshi & Hemmatian, 2018). By creating false coherence, which involves signals that align with existing interpretive frames, deception conceals intent and reverses interpretation, causing rivals to dismiss valid cues while trusting fabricated ones (Daniel & Herbig, 1982).

Within the AMC framework (Chen, 1996), deceptive communication acts as a powerful interpretation barrier. Unlike secrecy, which limits detection, deception causes rivals to misperceive visible signals, delaying corrective sensemaking (Levine, 2014; Pech & Stamboulidis, 2010). Repairing these misperceptions requires rivals to reanalyze information and rebuild mental models (Whaley, 1982; Wirtz, 2004). As a result, deception fosters confident misinterpretation and rework, increasing the likelihood of competitive surprise.

Deceptive communication is most critical for *misleading surprises*, which depend on constructed false expectations, and moderately important for *incongruent surprises*, which contradict but still relate to existing beliefs. In both cases, deception exploits reliance on established schemas and shortcuts, amplifying confusion and delaying decisions (Kahneman & Miller, 1986; Wanasika & Adler, 2011). For *novel* surprises, its effect is smaller since unpredictability arises from unfamiliarity rather than manipulation.

> ***Proposition 5a.*** *Deceptive communication enables competitive surprise by constructing false expectations about whether, when, where, or how an attack will occur, thereby prolonging interpretation and sensemaking.*
>
> ***Proposition 5b.*** *The presence of deceptive communication is most critical for misleading surprises, moderately important for incongruent surprises, and less relevant for novel surprises.*

POST-SURPRISE PERIOD AND RIVAL RESPONSE OUTCOMES

Once a competitive surprise occurs, *evaluation barriers* and *response incentives* shape rivals' motivation and capability to respond. Evaluation barriers disrupt decision-making and hinder accurate appraisal, while response incentives heighten attention and emotional engagement, motivating reaction. Together,

their relative levels determine the *speed* and *quality* of rival responses. We next describe these mechanisms and present propositions linking surprise types to response outcomes.

Evaluation Barriers

Decision-making interruptions

Surprising events disrupt ongoing cognitive and organizational processes. Psychologically, surprise violates people's need to predict and understand outcomes (Noordewier et al., 2016: 137), and evokes negative emotions such as fear, anxiety, and perceived threat (Miceli & Castelfranchi, 2014; Proulx, Inzlicht, & Harmon-Jones, 2012). These reactions can cause cognitive freezing that interrupts attention and delays adjustment (Camras et al., 2002; Meyer et al., 1997). Organizationally, surprises distort information processing and break decision routines (Mintzberg, Raisinghani, & Theoret, 1976), reducing capacity to assess implications (Staudenmayer, Tyre, & Perlow, 2002). Managers may avoid confronting threats (Jackson & Dutton, 1988) or cling to prior commitments (Staw, Sandelands, & Dutton, 1981), further delaying response. In sum, competitive surprise weakens decision-making capacity by interrupting work rhythms, heightening ambiguity, and distorting information processing, thereby constraining organizational responses.

Impact appraisal difficulties

After surprise disrupts decision routines, managers must assess the event's impact, a task requiring significant cognitive effort and time. Because surprising actions often contradict existing schemas (Pezzo, 2003), managers face uncertainty about appropriate countermeasures. They must revise prior beliefs and estimate how the event affects customers, competitors, and stakeholders (Smith & Cao, 2007; Smith & Gregorio, 2017). Complexity adds delay as rivals evaluate which responses are feasible, what resources are needed, and how quickly they can be deployed (Connelly & Shi, 2022; Rogers, 1975). This appraisal process consumes time and managerial attention, reducing capability to respond effectively.

Response Incentives

In contrast, response incentives stem from surprise's ability to *capture attention* and *magnify emotional intensity*. Because surprising outcomes deviate from expectations, they evoke curiosity and a strong urge to explain their causes (Loewenstein, 2019). Novelty and expectation discrepancy focus attention,

stimulate learning, and create social pressure for reaction, as stakeholders often demand immediate responses (Berger & Milkman, 2012; Derbaix & Vanhamme, 2003). Surprise also amplifies emotion: "the pleasure of winning and the pain of losing are more intense when outcomes are surprising" (Mellers et al., 1999: 336), thereby increasing engagement and motivating faster action, particularly when fear or anger prevail (Lerner & Keltner, 2000).

Competitive Surprise Types and Rival Response Outcomes

Figure 2 illustrates how different combinations of *evaluation barriers* and *response incentives* produce distinct patterns of rival response speed and quality across surprise types. Evaluation barriers (high vs. low) appear on the horizontal axis and response incentives (high vs. low) on the vertical, with each cell representing a configuration of post-surprise outcomes.

These outcomes depend on pre-surprise conditions. Without detection and interpretation barriers, an event would not qualify as a competitive surprise. Once surprise occurs, the strength of post-surprise mechanisms determines rivals' response speed and effectiveness: high evaluation barriers (e.g., decision interruptions, appraisal difficulties) slow decision-making and reduce effectiveness, whereas strong response incentives (e.g., heightened attention and emotion) drive faster reactions. The following propositions explain how novel, incongruent, and misleading surprises reflect different combinations of these mechanisms, shaping rival responses. Illustrative examples are provided in Table A1 of the Appendix.

Quadrant I: High Evaluation Barriers and High Response Incentives — Misleading Surprises

Misleading surprises occur when attackers deliberately construct false expectations through deception or signaling, causing rivals to misread intentions and react to inaccurate cues. Unlike novel or incongruent surprises, which stem from missing or violated expectations, misleading surprises directly manipulate those expectations. Rivals often realize the deception only after the move unfolds, forcing them to reassess information and rebuild their mental models (Whaley, 1982; Wirtz, 2004). This combination of high response incentives, driven by anger, embarrassment, and stakeholder pressure, and high evaluation barriers produces impulsive yet often ineffective reactions.

Deception causes major decision-making interruptions. Rivals who realize they have been misled experience cognitive dissonance and distress that disrupt analytical reasoning (Wanasika & Adler, 2011). They must assess whether the event represents a genuine strategic move or an extension of the deception itself. Detecting inconsistencies and reconstructing an accurate understanding is costly, consuming attention and cognitive bandwidth that limit effective response (Whaley, 1982; Wirtz, 2004). At the same time, *response incentives* are unusually strong. Discovering deception triggers anger, humiliation, and a desire to retaliate (Aquino, Tripp, & Bies, 2006; Bies & Moag, 1986). Such emotionally charged surprises attract scrutiny and stakeholder pressure for immediate action to restore credibility and deter future exploitation (Lerner & Keltner, 2000; Mellers et al., 1999). This heightened motivation compresses decision time, prompting rapid but poorly designed responses. Misleading surprises often evoke a "fight" rather than "freeze" reaction, speeding action but impairing judgment (Loewenstein, 2019).

Strategically, misleading surprises exploit this imbalance between *high incentives* and *high barriers*. Emotional arousal and reputational concerns drive rivals to act faster than they can appraise the situation. They often resort to visible counteractions, such as retaliatory price cuts or public denouncements, before fully understanding the attacker's intentions or capabilities. These responses may appease stakeholders but rarely neutralize the threat. In summary, misleading surprises combine strong motivation with low interpretive clarity, leading to rapid yet ineffective reactions.

> ***Proposition 6a.*** *Misleading surprises, which combine high response incentives with high evaluation barriers, lead to impulsive (fast) but ineffective rival responses.*

***Primary enabling conditions**. Proposition 6a holds when *deceptive communication and partial secrecy* are the primary enabling conditions, supplemented by *vague language.* Together, these barriers heighten interpretation barriers and increase the likelihood that surprise converts into fast yet ineffective responses.

Quadrant II: High Evaluation Barriers and Low Response Incentives — Novel Surprises

Novel surprises are the most profound form of unexpectedness, involving events so unfamiliar that they fall outside established cognitive and organizational schemas. With no precedent, rivals face acute appraisal difficulties as they struggle to interpret meaning, cause, and implications for competition. These

events create high evaluation barriers and weak response incentives, leading to delayed and moderately effective responses.

When surprise stems from novelty rather than deception or expectation violation, rivals cannot rely on prior knowledge to guide action. Novel outcomes conflict with the informal theories managers use to organize experience, forcing them to build new interpretive frames before acting (Pezzo, 2003). This reframing consumes cognitive resources, particularly when limited preparation time and weak signals force managers to first define the event and then decide how to respond (Morgeson et al., 2015). Revising beliefs and anticipating second-order effects on customers and competitors further extends decision time (Smith & Cao, 2007).

Novel surprises also produce modest *response incentives*. Because unfamiliar events evoke curiosity more than threat or anger, they heighten attention without triggering urgency (Loewenstein, 2019; Noordewier et al., 2016). Managers often delay commitment until causal patterns stabilize, consistent with threat-rigidity and real-options reasoning that favor waiting when information is valuable and investments hard to reverse (Bowman & Hurry, 1993; March, 1991; McGrath, 1997; Rogers, 1975; Staw et al., 1981). This combination of high evaluation barriers and low-to-moderate incentives makes novel surprises the slowest to elicit reaction. Rivals devote disproportionate time to appraisal and counteraction development, trading speed for comprehension. Their eventual responses are deliberate but only moderately effective as they struggle to catch up with first movers (Boyd & Bresser, 2008).

> ***Proposition 6b.*** *Novel surprises, which impose high evaluation barriers and generate limited response incentives, lead to delayed rival responses that are initially only moderately effective.*

***Primary enabling conditions**. Proposition 6b is most likely when pre-surprise detection barriers, such as *tight secrecy* and/or *limited rival competitive-intelligence capacity*, make the event fully unexpected by preventing early recognition. Conversely, when information leaks occur or intelligence systems detect weak signals in advance, novel events are less likely to produce substantial delays in rival response.

Quadrant III: Low Evaluation Barriers and High Response Incentives — Incongruent Surprises

Incongruent surprises contradict rivals' existing expectations about their timing, location, magnitude, or type. Unlike novel surprises, which lack any reference point, incongruent surprises violate established schemas that remain partly valid (Kahneman & Miller, 1986; Pinquart et al., 2021). Rivals thus recognize

that something unexpected has occurred but must reconcile it with prior assumptions about the attacker's behavior. These events generate high response incentives (heightened attention and confidence that the event can be managed) alongside moderate evaluation barriers, since they can be interpreted within existing frameworks. The result is a moderately fast and effective response (see Table A1).

Expectation violations trigger intense attentional focus and moderate emotional arousal (Loewenstein, 2019; Noordewier et al., 2016). Because the event is recognizable but discordant, rivals quickly engage in explanation and problem-solving rather than paralysis (Meyer et al., 1997). Incongruent surprises involve schema modification rather than replacement (Schützwohl & Borgstedt, 2005): managers adapt existing categories instead of creating new ones. This process fosters directed curiosity and a sense of controllability that channels attention toward timely, targeted responses (Noordewier et al., 2016; Proulx et al., 2012). Because they occur within familiar domains, managers can evaluate implications and mobilize countermeasures with limited delay (Mintzberg et al., 1976). Decision interruptions are brief, and ambiguity remains bounded (Meyer et al., 1997).

Response incentives are strong yet balanced. Expectation violations attract managerial and stakeholder attention, creating pressure to respond, but the threat's intelligibility tempers fear or anger with confidence in effective action (Lerner & Keltner, 2000; Mellers et al., 1999). This balance yields responses that are fast yet deliberate. In sum, incongruent surprises mobilize attention and effort while permitting appraisal through existing schemas. Rivals facing such events tend to respond with a moderate delay and effectively.

> *Proposition 6c. Incongruent surprises, which combine high response incentives with moderate evaluation barriers, lead to moderately fast and effective rival responses.*

***Primary enabling conditions**. Proposition 6c is most likely in the presence of *vague language* and *irregular competitive behavior*. Irregular behavior disrupts established action patterns, making expectation violations harder to anticipate, whereas vague language obscures strategic intent, increasing interpretive ambiguity.

Quadrant IV: Low Evaluation Barriers and Low Response Incentives

Even when detection and interpretation barriers obscure early warning signals, some competitive surprises can still be quickly recognized and countered once they occur. These typically involve

incongruent tactical surprises, actions that violate expectations about timing, location, or magnitude but remain simple and familiar. Examples include sudden price cuts or short-term promotional discounts. Such moves differ from strategic surprises in scale and complexity.

Competitive dynamics research distinguishes *tactical actions*, which are discrete and easily implemented, from *strategic actions*, which require larger investments and greater uncertainty (Chen & MacMillan, 1992; Chen et al., 1992; Smith et al., 2001; Smith, Grimm, Gannon, & Chen, 1991). Tactical actions occur within established routines, minimizing appraisal demands. Once observed, rivals can assess implications quickly and respond through familiar mechanisms such as matching prices or adjusting promotion (Smith et al., 1991). Although pre-surprise barriers delay initial awareness, the simplicity of these actions allows firms to close that gap rapidly once the surprise unfolds. In these cases, both *response incentives* and *evaluation barriers* are low. Because the threat is clear and the remedies are routine, managers act with confidence and efficiency rather than urgency or emotional intensity. The result is a *fast and effective response* that restores competitive balance without disruption.

> ***Proposition 6d.*** *When competitive surprises involve incongruent tactical actions, which are simple, familiar moves such as price cuts or advertising bursts that generate low evaluation barriers and low response incentives, rivals will deliver fast and effective responses* ***despite*** *the presence of pre-surprise detection and interpretation barriers.*

DISCUSSION

Firms often use competitive surprises to gain advantage over rivals. We develop a process model explaining how and when such surprises impair rivals' ability to respond quickly and effectively. The model distinguishes between pre-surprise and post-surprise mechanisms that shape rival responses. In the pre-surprise stage, detection and interpretation barriers limit rivals' ability to identify and make sense of early warning signals. Depending on whether an event is novel, incongruent, or misleading, barriers such as secrecy, irregular behavior, limited rival intelligence capacity, and vague or deceptive communication determine when surprise is most likely to occur. In the post-surprise stage, rivals' reactions depend on the interaction between evaluation barriers and response incentives, which together affect response speed and effectiveness. Evaluation barriers such as decision-making interruptions and impact appraisal difficulties

impede sensemaking and delay effective response, while response incentives capture the motivational and emotional effects of surprise, ranging from curiosity to fear. Our model integrates competitive surprise into the awareness–motivation–capability (AMC) framework, clarifying its role in shaping rivals' willingness and ability to respond.

Implications for Competitive Dynamics Research

Despite its central role in rivalry, *competitive surprise* has received limited systematic attention in competitive dynamics research (Chen & Miller, 2012; Smith et al., 2001). Yet it is crucial for explaining why some competitive actions delay rival responses while others do not, as it directly shapes awareness, motivation, and capability (Chen, 1996). Competitive actions differ in their level of unexpectedness, from fully anticipated to entirely unforeseen. Our model specifies when an action is likely to surprise rivals by defining surprise *relative to rivals' expectations*, rather than by the action's characteristics.

Methodological implications. This conceptualization of competitive surprise provides a foundation for identifying and measuring surprise empirically. Advances in computational text analysis and large language models (LLMs) enable detection of linguistic and emotional markers of surprise in announcements, analyst reports, and news articles. Fine-tuned RoBERTa models can assess surprise-related sentiment, while generative LLMs can extract contextual details such as initiator, affected rivals, and surprise type. These results can be validated across sources to trace the frequency, nature, and effects of competitive surprises at scale.

Surprise capability. Measuring competitive surprise allows comparison of firms' ability to surprise rivals. Some firms possess a distinctive surprise capability that enables them to design and execute actions that consistently defy expectations. This capability extends beyond creativity or innovation, reflecting competitive acumen in anticipating how rivals think and interpret signals (Chen & Miller, 2012; Tsai, Su, & Chen, 2011). Consistent with dynamic capabilities theory (Teece, Pisano, & Shuen, 1997), firms with strong sensing routines not only identify opportunities but also predict how rivals will perceive their actions, enabling the strategic use of timing, concealment, and misdirection.

Surprise capability thus functions as a managerial cognitive capability (Helfat & Peteraf, 2015) that allows firms to manipulate the temporal and interpretive dimensions of rivalry.

Secrecy. A critical antecedent and amplifier of surprise capability is secrecy. The ability to withhold, disguise, or distort information both protects firms from imitation and ensures their *moves remain unexpected*. Prior research highlights secrecy's role in protecting innovation and raising imitation costs (James, Leiblein, & Lu, 2013) and as a foundation for isolating mechanisms such as path dependence and time compression advantages (Dierickx & Cool, 1989; Reed & DeFillippi, 1990; Srikanth, Anand, & Stan, 2021). More recent work, however, suggests that secrecy is equally important *before* innovation occurs, during its developmental process (Borpujari, 2025). Our model extends this view by showing that secrecy can create surprise regardless of whether an action is innovative. By shaping what rivals perceive and infer, secrecy can prevent anticipation in novel surprises or violate expectations in misleading surprises, creating cognitive blind spots and informational asymmetries that amplify surprise effects. Beyond active concealment, strategic forbearance contributes to partial secrecy by withholding action when rivals expect it (Andrevski & Miller, 2022; Andrevski et al., 2022). Together, secrecy and surprise capability form a strategic complementarity: secrecy provides the informational shield that enables surprise, while surprise capability leverages that concealment to disrupt rivals' awareness, motivation, and capability to respond.

Implications for First-Mover Advantage Theory

Our model complements and extends first-mover advantage (FMA) theory, which differentiates between the initial *head start* that creates competitive asymmetry and the mechanisms that sustain it. As Lieberman and Montgomery (1988: 41) note, "In the first stage some asymmetry is generated, enabling one particular firm to gain a head start over rivals... Once this asymmetry is generated, a variety of mechanisms may enable the firm to exploit its position." Our model elaborates on this first stage by identifying the cognitive and organizational mechanisms (specifically detection, interpretation, and evaluation barriers and incentives) that connect a competitive surprise to rivals' response decisions. In Figure 1, total rival response time spans from the *competitive surprise (CS)* to the *rival's eventual*

response (RR). The interval between CS and the *decision to respond (DR)* represents the time uniquely attributable to the surprise itself, while the period between DR and RR reflects *response execution barriers* such as learning curves, resource preemption, and switching costs (Lieberman & Montgomery, 1988).

Our model enriches FMA theory by showing that temporal asymmetry may arise from detection, interpretation, and evaluation barriers rather than luck or resource endowments. Surprise extends the response window by preventing rivals from preparing and by distorting their post-event analysis. Unprepared firms may lose access to key inputs such as supplier capacity, prominent display, algorithm preference, or early network effects. Surprise also gives first movers a framing advantage, allowing them to shape the narrative before rivals catch up. It can cause confusion and sensemaking paralysis that delay collective decisions on budgeting, production planning, or regulatory filings, and lead to costly, misaligned actions.

Extending Research on Organizational Responses to Unexpected Events

Research in organization studies has explored how actors detect, interpret, and adapt to unexpected events, focusing on weak-signal detection (Ansoff, 1975), sensemaking under disruption (Bechky & Okhuysen, 2011; Louis, 1980; Weick & Sutcliffe, 2001), crisis response (Pearson & Clair, 1998), and event properties that drive attention and change (Morgeson et al., 2015). Our model extends this work in three ways.

First, it reframes surprise from a target-centered experience to a relational mechanism in rivalry. We explain how initiators design surprise through detection and interpretation barriers and how targets evaluate and respond, *integrating proactive and reactive dynamics* in one process model (Cunha et al., 2006; Sala et al., 2025). Second, it links cognitive and affective processes to competitive outcomes by showing how evaluation barriers (decision interruptions, appraisal difficulty) and response incentives (curiosity, fear, anger) shape response speed and effectiveness (Meyer et al., 1997; Mintzberg et al., 1976; Noordewier et al., 2016). Third, it connects event reactions to the awareness–motivation–capability (AMC) framework, showing that pre-surprise barriers impair awareness, while post-surprise mechanisms

influence motivation and capability (Chen, 1996; Jackson & Dutton, 1988; Staw et al., 1981). Together, these insights move beyond coping to explain when and why firm-initiated surprises shape rival responses and create temporary advantage.

Further Research Directions

Future research can extend our model along three main avenues: the origins of competitive surprise, its effects on rival responses, and how firms overcome and learn from it. First, scholars can examine how secrecy, deception, vague language, and irregular behavior jointly create competitive surprise. Key questions include how firms combine these mechanisms to manage timing, conceal intent, or exploit rival inattentiveness. Future work could also assess how contextual factors such as market dynamism, digital transparency, and cultural norms influence the effectiveness of these barriers. Second, research can explore how competitive surprise influences rival behavior and performance. Studies might examine how different surprise types (novel, incongruent, misleading) affect response speed, quality, and emotional regulation, as well as how partial secrecy or deception amplify or weaken response delays. Additional work could analyze how surprise interacts with first-mover advantage to extend lead time and how failed surprises affect legitimacy and reputation. Finally, scholars can investigate how rivals anticipate, adapt to, and learn from surprise. Topics include how cognitive capacity, emotional regulation, and competitive acumen improve anticipation; how emerging technologies such as AI-driven intelligence enhance signal detection; and whether repeated exposure increases resilience and adaptive speed.

CONCLUSION

Surprise has long been the domain of generals, gamblers, and innovators, yet its strategic role in business rivalry remains undertheorized. This paper develops a relational, process-based model of competitive surprise, showing how firms create and confront the unexpected. By distinguishing pre-surprise barriers that obscure rivals' awareness from post-surprise mechanisms that shape motivation and capability, the model reveals how surprise turns time into a strategic resource. It gives attackers a temporary head start while pushing rivals into delay, confusion, or overreaction. Yet the same dynamics that create advantage can also expose vulnerability: firms that surprise today may be surprised tomorrow. Understanding how

surprise emerges, unfolds, and fades allows competition to be seen not just as a race of speed or strength but as a contest of expectations.

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Figure 1

A Model of Competitive Surprise

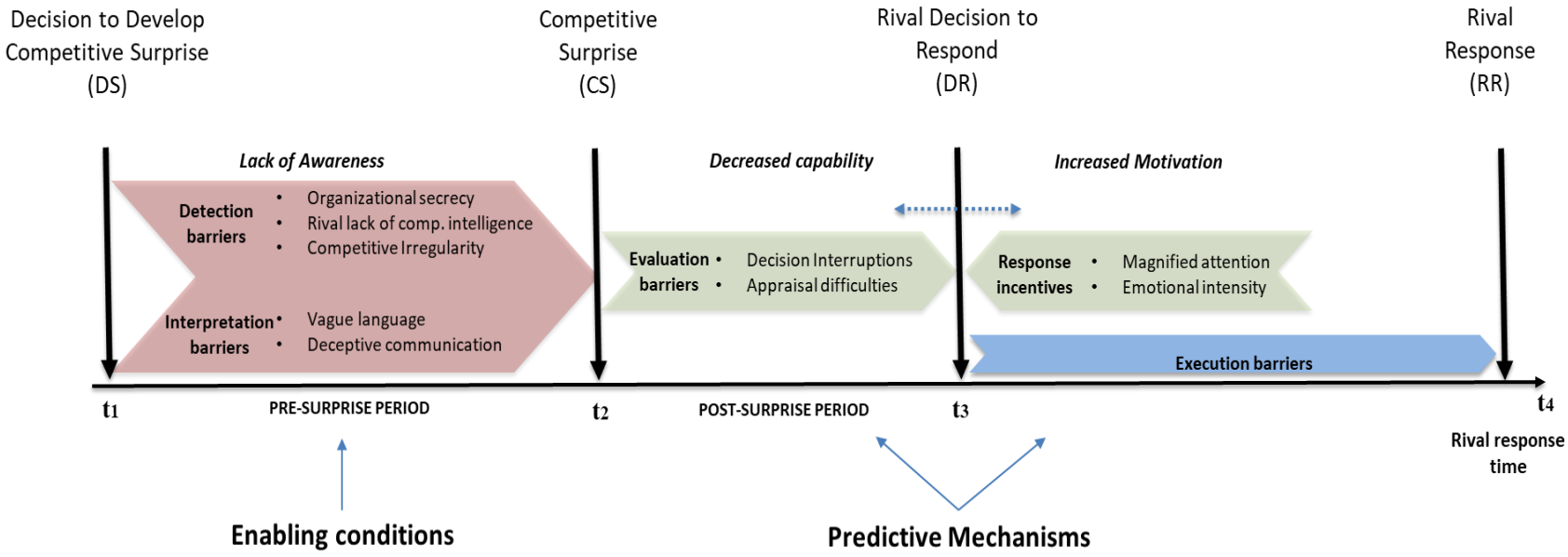
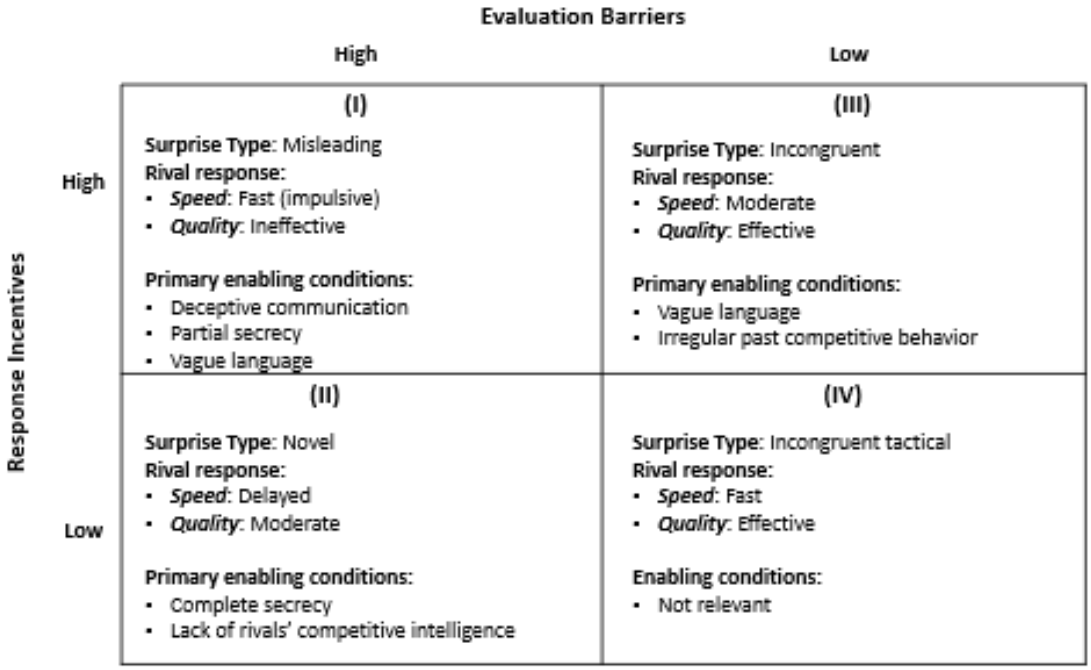


Figure 2

Competitive Surprise Types and Rival Response Outcomes



APPENDIX

Table A1: Examples of Competitive Surprise Types and Response Outcomes

Quadrant	Example
(I) **Surprise Type: Misleading**	After Bic entered the disposable razor market, leading to mutual profit losses, Gillette strategically exited the lighter segment and signaled weaker position. Bic then doubled down on lighters, allowing Gillette to secure dominance in the razor market (McGrath et al., 1998). Bic ultimately stayed in the razor market but Gillette gained up to 50% of the market share in two years after the gambit, enabling further investments in other markets as well. **Rival response: Fast and ineffective**
(II) **Surprise Type: Novel**	The 2006 launch of the Nintendo Wii, originally called the Nintendo Revolution, broke industry conventions with its motion-based Wii Remote, unlike the joystick systems of Sony and Microsoft. Its rapid success caught rivals off guard, and they did not release comparable motion-sensing technology until 2010 (Wingfield & Kane, 2007). While both Microsoft and PlayStation eventually responded, their initial responses were only moderately effective as Nintendo retained its leadership position in that segment. The Wii's "secretly developed new technology" (the Wii Remote) and its focus on a new, untapped market (casual and family gamers) blindsided Sony and Microsoft. **Rival response: Delayed and moderately effective**
(III) **Surprise Type: Incongruent**	In January 2023, Tesla lowered prices on its top-selling electric vehicles, a move competitors expected but underestimated in scale. As the Wall Street Journal noted, a "20% price cut on some of the most popular models is really *shocking*," especially after a year of steady price increases. The responses of Chinese automakers were not fast, but eventually matched Tesla's price. **Rival response: Moderate speed and effective** **https://www.wsj.com/podcasts/the-journal/teslas-big-price-cut/60a07a53-1949-4572-9740-a0f2906a9bfd**
(IV) **Surprise Type: Tactical Incongruent**	On **February 13, 2017**, Verizon abruptly *reintroduced an unlimited data plan*, reversing years of public statements that "unlimited" was uneconomic. Industry coverage characterized the move as unexpected, given Verizon's prior stance—an *incongruent* action that violated rivals' expectations about *whether/when* Verizon would re-enter unlimited. The move was announced on Sunday evening press release with next day availability, limiting advance warning and created a moment of surprise. Because the move was tactical and familiar (pricing/plan structure), evaluation barriers were low. Within **one day**, **T-Mobile** upgraded its unlimited plan (HD video + 10GB hotspot; pricing tweaks), and **by February 16 AT&T** expanded unlimited to *all* consumer and business lines (after previously restricting it to video-bundle customers), restoring competitive parity in days (one and 3 days) rather than weeks or months. **Rival response: Fast and effective** **https://fortune.com/2017/02/12/verizon-unlimited-wireless-data-plan/** **https://time.com/4669860/t-mobile-verizon-unlimited-data-plan-upgrade/**