

Morgan Working Paper Series

2026 • Version 1.0

Before Choice: The Structural Formation of Decidability Under Constraint

Holding, Agency, and the Structural Condition of Choice

David S. Morgan

CEO (Retired) | Doctoral Candidate, Walden University | Practitioner-Scholar

Morgan Working Paper Series • 2026 • Version 1.0

DOI: <https://doi.org/10.5281/zenodo.20031855>

Suggested citation: Morgan, D. S. (2026). *Before choice: The structural formation of decidability under constraint* (Version 1.0). Zenodo. <https://doi.org/10.5281/zenodo.20031855>

Abstract

This paper examines a prior condition in decision-making that existing models assume but do not specify: the formation of alternatives as such. We introduce the construct of decidability to name the structural condition under which selection expresses a choice rather than the continuation of behavior, and we identify holding as the mechanism that preserves this condition under constraint. Decidability requires the stabilization of recognition, the availability of relevant features, and the preservation of alternatives as differentiated possibilities; holding sustains these elements through pause, reassessment, micro-adjustment, and embedded modulation, even where temporal compression makes its operations invisible.

The framework is examined through 24 micro-events across six domains (painting, aviation, surgery, musical improvisation, high-stakes poker, and open-outcry trading), coded along six structural dimensions and independently validated. The pattern is consistent. Where holding is present, decidability forms. Where it is absent, action proceeds without the formation of alternatives. Under temporal compression, holding persists in reduced form, corresponding to partial decidability rather than its absence.

These findings establish a structural distinction between choice, behavior, and outcome that does not depend on retrospective intention or outcome quality. Actions formed under decidability may fail; actions that bypass decidability may succeed. The framework further shows that decidability is not solely an individual capability but a property of the systems in which action occurs, with implications for organizational design, leadership under constraint, and the conditions under which adaptive choice remains structurally possible.

The capacity required at the point of decision is not generated at that point. It is sustained into it.

Keywords: Decidability; decision-making; choice formation; holding; sensemaking; situation awareness; recognition-primed decision making; real-time decision making; micro-level analysis; action under constraint; organizational design; adaptive capacity; leadership; decision processes

1. Introduction

Choice is typically understood as selection among alternatives¹. Across disciplines, decision-making research has focused on how actors evaluate options under conditions of uncertainty, constraint, and limited information (Simon, 1955; Kahneman & Tversky, 1979; March, 1994). In this view, alternatives are assumed to exist, and the central question concerns how they are compared and selected.

This paper advances a different claim. Choice is not given in action. It is formed under specific structural conditions.

Before any selection can occur, a situation must become structured in a way that makes alternatives available as meaningful possibilities. This condition is not guaranteed. In many instances, action proceeds without the formation of alternatives, even when outcomes appear deliberate or successful. The presence of action is therefore not evidence that a choice has occurred.

To address this gap, we introduce the construct of *decidability* to describe the condition in which a situation has become structured such that selection expresses a choice. Decidability requires the stabilization of recognition,

¹Earlier versions of this manuscript circulated under the title *The Formation of Decidability*.

the availability of relevant features, and the preservation of alternatives as differentiated possibilities. We identify *holding* as the mechanism that sustains these conditions under constraint.

This reframing shifts the focus of decision research from selection to formation. Existing theories provide robust accounts of how actors choose among alternatives once they are available (Kahneman, 2011; Gigerenzer & Gaissmaier, 2011; Klein, 1998). They do not specify the structural conditions under which alternatives persist long enough to be selected. The present framework addresses this prior condition. This shift is illustrated in Figure 1.

FIGURE 1. Relocating Choice: From Selection to Decidability

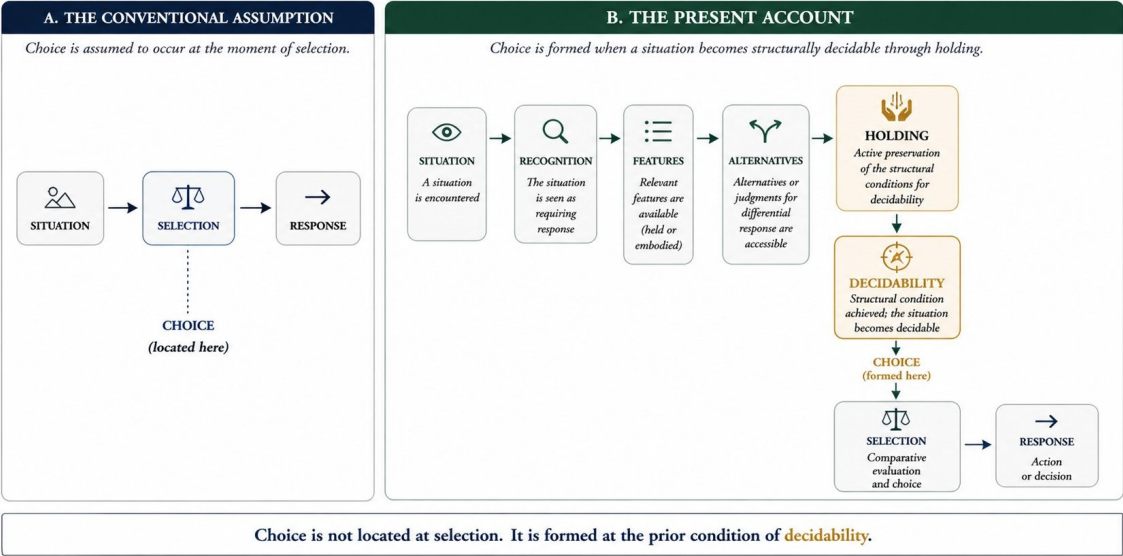


Figure 1. Relocating choice: from selection to decidability. Choice is not located at selection; it is formed at the prior condition of decidability.

To examine the formation of decidability, we analyze 24 micro-events across six domains, including artistic practice, aviation, surgery, musical improvisation, high-stakes poker, and financial trading. Each micro-event captures a temporally bounded interval immediately preceding action, allowing direct observation of whether the conditions of decidability are present, formed, or absent at the point of commitment. A structured coding framework is applied to each event, focusing on recognition, feature availability, alternatives, holding, and resulting action.

An independent second coder applied the same framework to a subset of cases, reproducing the core structural pattern identified in the primary analysis. In all instances where decidability is fully present, holding behaviors are also present. In cases where holding appears compressed or embedded within continuous action, decidability is correspondingly partial. These results support the claim that holding is a necessary condition for the formation of choice.

The findings establish a structural distinction between choice, behavior, and outcome. Actions formed under decidability may fail, while actions that bypass it may succeed. Outcome quality therefore does not indicate whether choice has occurred. This distinction has implications for both theory and practice, particularly in environments characterized by time pressure, uncertainty, and high consequence.

The paper contributes in three ways. First, it introduces decidability as a structural condition that precedes and enables choice. Second, it identifies holding as the mechanism that preserves the conditions necessary for this formation. Third, it demonstrates that these conditions are observable and invariant across domains that differ substantially in tempo, expertise, and consequence.

By relocating choice from selection to formation, the paper reframes decision-making as a process that depends not only on how alternatives are evaluated, but on whether they exist at all.

2. The Structural Formation of Decidability

If choice is not located at selection, then it must be located elsewhere. The argument advanced here is that choice does not reside in the act of selecting among alternatives, but in the prior formation of a situation in which alternatives exist as objects of selection. This condition, which we term *decidability*, precedes and enables choice. Without it, action may occur, but it does not constitute choice in a structural sense.

This position departs from, but does not reject, existing theories of decision-making. Classical and contemporary models, whether grounded in rational choice (von Neumann & Morgenstern, 1944), bounded rationality (Simon, 1955, 1979; Cyert & March, 1963), heuristics and biases (Tversky & Kahneman, 1974; Kahneman & Tversky, 1979; Kahneman, 2011), dual-process accounts of cognition (Stanovich & West, 2000; Evans & Stanovich, 2013), or adaptive selection among strategies (Payne et al., 1993), are primarily concerned with how actors evaluate and select among alternatives under constraint. Even when these models account for cognitive limits, bias, heuristic processing, or strategy adaptation, they retain a common structural premise: that alternatives are already available and that the decision problem is one of selection among them.

What remains comparatively under-specified is the prior condition under which a situation becomes one in which alternatives are available as such. This omission is not trivial. In complex, uncertain, or rapidly evolving environments, alternatives are not always given; they must be formed. Early work on organizational choice has hinted at this instability. In the “garbage can” model, for example, problems, solutions, and decision opportunities are only loosely coupled, such that what appears as a decision is often the contingent alignment of streams rather than a structured selection among stable alternatives (Cohen et al., 1972). Similarly, research on sensemaking emphasizes that actors actively construct the situations they face, rather than simply responding to pre-defined problems (Weick, 1995). These perspectives suggest that the structure of the decision situation itself is an empirical and theoretical question.

Decidability addresses this prior condition directly. A situation is decidable when it has been formed such that it is recognized as requiring response, relevant features are available and integrated, and alternatives are accessible as differentiated possibilities. These conditions are mutually dependent. Recognition without access to relevant features does not yield actionable understanding; features without recognition do not organize into a situation requiring response; and alternatives without stability collapse into indistinguishable or illusory options. Decidability is therefore not a property of the actor alone, nor of the environment alone, but of the structured relation between them. This relational framing aligns with situated accounts of action that emphasize the inseparability of plans from the circumstances of their enactment (Suchman, 1987; Vera & Simon, 1993), while specifying the structural conditions under which that relation supports the formation of choice.

The instability of this relation becomes particularly visible under constraint. In high-velocity or high-consequence environments, action often appears to precede deliberation. Recognition-primed decision-making research has shown that experienced actors can respond rapidly without explicit comparison of alternatives,

drawing instead on pattern recognition and mental simulation (Klein, 1998). Similarly, the literature on heuristics demonstrates that effective decisions can be made under severe informational and temporal limits (Gigerenzer & Gaissmaier, 2011). These accounts are sometimes interpreted as evidence that deliberation, and by extension structured choice, is unnecessary. However, they do not eliminate the need for a formed situation. Rather, they suggest that the conditions of decidability may be achieved and maintained in compressed or internalized form.

This is particularly evident in studies of expertise. The Dreyfus model of skill acquisition, for example, describes how expert performers act fluidly and intuitively, without explicit rule-following or conscious deliberation (Dreyfus & Dreyfus, 1986). Research on deliberate practice further demonstrates that the development of expert performance involves the long-term acquisition of perceptual and procedural structures that operate without explicit attention at the point of action (Ericsson et al., 1993). What distinguishes expert performance is not the absence of structure, but its embodiment. The situation is grasped holistically, and action unfolds without visible interruption. From the perspective advanced here, such performance reflects the internalization of the conditions of decidability, consistent with longstanding accounts of tacit knowing in skilled action (Polanyi, 1966; Varela et al., 1991). Holding is no longer expressed as visible pause or reflection, but is embedded within the continuous flow of action.

The mechanism that makes this possible is what we term *holding*. Holding refers to the active preservation of the conditions necessary for decidability under constraint. It sustains recognition as a stable situation, maintains access to relevant features in the face of compression or overload, and prevents the premature collapse of alternatives. In this respect, holding is consistent with, but distinct from, prior constructs. It extends sensemaking by emphasizing not only the construction of meaning (Weick, 1995), but the preservation of the conditions under which meaningful differentiation can occur. It complements recognition-primed models by identifying the structural work required for rapid action to remain grounded in a formed situation (Klein, 1998). And it differs from accounts of situation awareness, which emphasize perception and comprehension of environmental elements (Endsley, 1995), by specifying the conditions under which such awareness yields actionable alternatives.

Holding may take different forms depending on context. In some settings, it appears as visible pause, hesitation, or step-back. In others, it is compressed into micro-temporal intervals under extreme time pressure. In still others, particularly in expert performance, it is internalized and no longer externally observable. Across these variations, its function remains invariant: to preserve the structural integrity of the situation long enough for alternatives to emerge as differentiated possibilities.

Where holding is present, the situation may become decidable, and selection expresses a formed choice. When holding is absent or suppressed, the situation does not reach this condition. Responses may still occur, often rapidly and effectively, but they proceed as the continuation of behavior under constraint rather than as the outcome of choice. This distinction is not reducible to subjective experience or retrospective account. It is structural. The presence or absence of decidability determines whether action constitutes choice.

An important implication follows from this formulation. The formation of decidability is independent of the correctness of the resulting action. A situation may be fully formed, alternatives clearly differentiated, and a choice made that nonetheless leads to failure. Conversely, responses that bypass decidability may produce acceptable or even optimal outcomes. This separation between the formation of choice and the evaluation of outcomes is consistent with prior work emphasizing that decision quality and decision outcomes are not

equivalent (March, 1994). The present framework provides a structural basis for that distinction by identifying the conditions under which choice itself exists.

The relation among these elements can be expressed formally. Let recognition (R), feature availability (F), and alternatives (A) denote the structural conditions of the situation, and let holding (H) denote the mechanism that preserves these conditions under constraint. Decidability (D) emerges when these elements are jointly sustained:

$$D = f(R, F, A | H)$$

Holding operates as a condition on the stability of R, F, and A. Without it, these elements may be present but unstable, and decidability does not form. With it, the situation is preserved long enough for alternatives to emerge as meaningful distinctions, and selection expresses choice.

This formulation yields a set of empirically tractable implications. First, holding should be a necessary condition for the formation of decidability. Second, in the absence or suppression of holding, responses should occur without the formation of decidability and be structurally indistinguishable from behavior. Third, the presence of decidability should be independent of outcome quality. Finally, the form of holding may vary across domains, appearing as visible pause, embodied adjustment, or internalized expertise, while its function remains invariant.

These implications provide the basis for empirical examination. In the following section, we operationalize the components of decidability and apply this framework to a cross-domain dataset of micro-level action sequences, allowing direct observation of the formation, compression, internalization, and suppression of holding across diverse contexts of action.

3. Methods and Coding Framework

3.1 Research Design

The objective of this study is to examine the structural formation of choice in action. Because decidability is defined as a condition that precedes and enables selection, it cannot be directly accessed through retrospective reports, survey measures, or outcome-based inference. Instead, it must be inferred from the structure of action as it unfolds in real time. The design therefore situates the analysis within the tradition of real-time decision making, where the unit of inquiry is the action sequence itself rather than the agent's report of it.

To address this requirement, the study adopts an observational, micro-analytic research design focused on action-in-progress. The analysis centers on temporally bounded episodes immediately preceding commitment to action, termed *micro-events*. These moments capture the transition from situation to response and allow direct examination of whether the conditions of decidability are present, formed, or absent at the point of action.

The study employs a cross-domain comparative approach, drawing on video-recorded sequences from six domains: painting, aviation, surgery, musical improvisation, high-stakes poker, and open-outcry financial trading. These domains were selected to maximize variation along dimensions central to the theory, including temporal compression, uncertainty, expertise, and consequence. This variation provides a stringent test of whether the structural conditions of decidability hold across contexts that differ substantially in surface characteristics.

The purpose of the empirical design is not statistical generalization but mechanism identification under heterogeneous conditions. By selecting cases that vary substantially in tempo, expertise, and consequence, the

design creates a stringent test of whether the proposed structural relationships hold across contexts where surface features differ. The analytic objective is therefore not to estimate population parameters, but to assess whether the relationship between holding and decidability is invariant across conditions that would otherwise disrupt it.

The dataset consists of 24 micro-events identified across six domains, with four temporally bounded moments analyzed within each case. This design prioritizes analytic diversity over statistical representativeness, enabling examination of structural invariance under varied and demanding conditions.

The use of video-recorded data is central to the design. Unlike retrospective accounts, which are subject to reconstruction and bias, video allows repeated, fine-grained analysis of observable behavior at the moment of action formation. This enables systematic identification of pauses, adjustments, hesitations, and continuous modulation, each of which bears directly on the presence or absence of holding and the emergence of decidability. In this sense, the design treats decidability as a structural property of action, inferable from observable behavior in situ rather than from post hoc accounts of cognition or intent.

3.2 Unit of Analysis

The unit of analysis is the micro-event, defined as a temporally bounded sequence of activity immediately preceding a committed response. A micro-event begins at the point at which a situation presents itself as requiring response and ends at the moment of action commitment, such as a brushstroke, control input, surgical cut, musical transition, chip placement, or trade execution. Once action is executed, the event is treated as closed.

Micro-events vary in duration, ranging from fractions of a second to several seconds depending on the domain. What distinguishes them is not duration but structural position. They represent the interval within which a situation may or may not become decidable. This unit of analysis allows structurally equivalent moments to be compared across domains that differ widely in scale and context, situating the empirical work within the tradition of micro-level analysis of action under constraint.

3.3 Data Selection

Data were drawn from publicly available, high-resolution video recordings that capture real-time action in naturalistic settings. Sources include recorded artistic sessions, cockpit voice and radar reconstructions, surgical demonstrations, live performance recordings, televised poker games, and archival footage of trading floor activity.

Cases were selected based on three criteria: (1) visibility of action formation, such that behavior immediately preceding action can be observed; (2) clarity of action commitment, allowing the endpoint of the micro-event to be identified; and (3) variation in constraint conditions, including time pressure, uncertainty, and expertise.

Within each case, four micro-events were identified to capture variation in observable structure, including visible holding, compressed action, continuous embodied modulation, failure despite deliberation, and apparent absence of alternatives. This resulted in a balanced dataset across domains, enabling direct comparison of structurally equivalent moments under varying constraint conditions.

This selection strategy emphasizes structural contrast rather than representativeness, enabling examination of the conditions under which decidability forms or fails to form.

3.4 Coding Framework

To operationalize decidability, each micro-event was coded along six dimensions: recognition (R), feature availability (F), alternatives (A), holding (H), decidability (D), and rework (W). These dimensions correspond directly to the structural elements specified in Section 2 and capture the presence, stability, and interaction of the conditions necessary for choice formation.

Coding was conducted using discrete ordinal scales, typically ranging from 0 (absent) to 2 (fully present), based exclusively on observable indicators within the video record.

Recognition captures whether the situation is stabilized as requiring response, as indicated by orientation, verbal acknowledgment, or alignment of attention. Feature availability captures the extent to which relevant aspects of the situation are accessible and integrated, as evidenced by scanning, adjustment, or reference to contextual cues. Alternatives capture whether multiple potential courses of action are present as differentiated possibilities, inferred from hesitation, comparison, or variation in approach.

Holding captures the presence of behavior that preserves the structural conditions necessary for decidability. Observable indicators include pauses, step-backs, sustained attention, micro-adjustments, and controlled modulation within ongoing action. Decidability captures whether the situation has reached the condition in which selection expresses a formed choice, inferred from the joint presence and stability of recognition, feature availability, and alternatives under holding. Rework captures whether an initial response is subsequently revised, undone, or corrected, indicating that the initial formation of the situation was incomplete or unstable.

The formulation of decidability as a function of these elements is conceptual rather than computational. The coding framework is designed to identify structural configurations rather than to estimate numerical relationships.

Importantly, coding does not rely on inferred intentions or subjective reports. Classification of action as choice or behavior is grounded in observable structure at the point of formation.

Across the 24 micro-events, the application of the six coding dimensions yielded 128 coded observations, providing the structural basis for the cross-domain pattern analysis presented in Section 4.

3.5 Coding Procedure and Validation

All micro-events were coded using the same framework to ensure consistency across domains. Each event was reviewed multiple times to capture fine-grained behavioral detail and to assess the stability of coding decisions. Where ambiguity existed, coding was resolved conservatively, privileging observable evidence over interpretation.

To assess the robustness of the coding framework, an independent second coder applied the same protocol to a subset of cases selected to represent variation in domain and constraint conditions, including both extended and highly compressed action contexts. The coder was instructed to rely exclusively on observable behavior and to avoid inference of internal states or intent.

Agreement was substantial at the ordinal level, with disagreements concentrated in cases of temporal compression and resolved within one scale point. The second coding reproduced the core structural pattern identified in the primary analysis. In all cases coded as fully decidable, holding behaviors were present. In cases where holding appeared compressed or embedded within continuous action, decidability was coded as partial

rather than absent. No instances were identified in which full holding was present without the formation of decidability.

Minor variation occurred in cases of extreme temporal compression, where brief intervals of stabilization were interpreted as minimal holding. These variations do not contradict the proposed mechanism but refine its boundary conditions, indicating that holding may operate at varying levels of temporal resolution while maintaining its structural role.

The purpose of this validation is not to establish statistical agreement but to assess whether the structural relationships identified in the framework are reproducible under independent application.

3.6 Analytic Strategy

The analytic strategy is pattern-based rather than statistical. The objective is not to estimate population parameters or test probabilistic hypotheses, but to identify structural regularities in the formation of action across varied contexts.

Analysis proceeds through iterative comparison of micro-events within and across domains. Each event is first examined to determine whether the conditions of decidability are present, formed, or absent. Patterns are then identified across events, focusing on the relationship between holding and the emergence of decidability. Finally, boundary conditions are explored through cases that place stress on the framework, including extreme temporal compression, expert performance without visible pause, failure despite apparent deliberation, and environments in which alternatives appear structurally suppressed.

This approach does not aim to establish causal effects in a statistical sense. Rather, it identifies mechanism-based regularities, where the consistency of observed patterns across heterogeneous conditions provides evidence for the proposed framework. In this respect, the analysis aligns with process-theoretic traditions that build explanation from the structure of unfolding action rather than from variance across cases (Pentland, 1999), prioritizing structural coherence and cross-contextual invariance over statistical generalization.

The evidentiary standard applied is consistency of structural pattern across heterogeneous conditions. If the relationship between holding and decidability were contingent on domain-specific factors, it would be expected to break under variation in tempo, expertise, or consequence. The absence of such breakdown across the dataset provides evidence for a mechanism-level explanation.

4. Findings

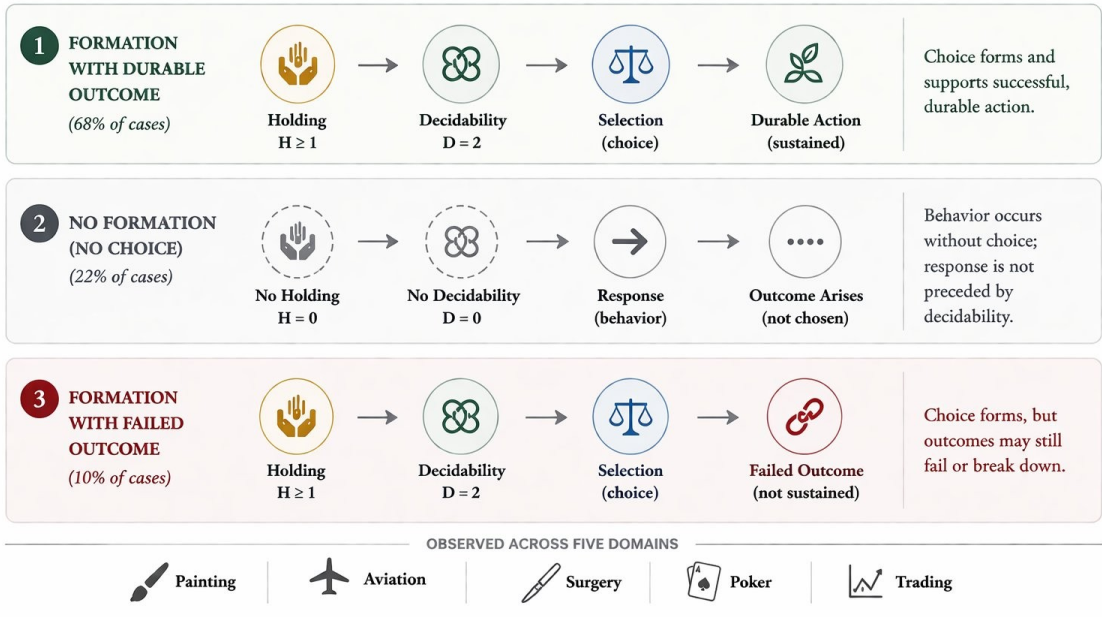
4.1 Overview of Observed Patterns

Across the 24 micro-events analyzed, a consistent structural pattern emerges. In all instances where decidability is fully present, holding behaviors are also present. In its absence, decidability does not form. Under conditions of temporal compression, holding persists in reduced form, corresponding to partial decidability rather than its absence.

This pattern holds across domains that differ substantially in tempo, expertise, and consequence. Observable variation in behavior reflects differences in the expression of holding, not its structural role. In this sense, the findings do not depend on the characteristics of a particular domain but on the presence or absence of the conditions required for decidability. The overall pattern is summarized in Figure 2.

FIGURE 2. Empirical Patterns of Decidability Across Domains

Three distinct patterns observed in our dataset ($N = 128$).



Note. H = Holding (0 = absent, ≥ 1 = present); D = Decidability (0 = not formed, 2 = structurally decidable).

Figure 2. Empirical patterns of decidability across domains. Three distinct patterns observed across the dataset. H = holding (0 = absent, ≥ 1 = present); D = decidability (0 = not formed, 2 = structurally decidable).

4.2 Decidability Under Full Holding

In domains where holding is visible and sustained, the full structure of decidability is present. These cases are characterized by clear stabilization of recognition, active engagement with relevant features, and the preservation of alternatives as differentiated possibilities.

In artistic practice, for example, the painter pauses, steps back, and visually re-engages the scene before committing to a stroke. These behaviors maintain access to spatial relationships and tonal balance while preserving multiple possible adjustments. The subsequent action reflects selection among these possibilities rather than immediate execution.

A similar pattern appears in surgical contexts. The surgeon pauses, reassesses, and adjusts positioning before proceeding. Observable behaviors include instrument hovering, verbal hesitation, and explicit correction of prior steps. These actions preserve structural conditions long enough for the situation to become fully decidable. When the action is executed, it reflects a formed choice rather than a reactive response.

In these cases, holding is extended in time and clearly observable. The resulting actions are preceded by structured formation, and rework, when it occurs, tends to be minor. The relationship between holding and decidability is direct and unambiguous. Such cases align closely with prior accounts of reflection-in-action in skilled practice (Schön, 1983), in which practitioners interrupt routine execution to engage the structure of the situation itself; the present framework specifies the structural function such interruptions perform.

4.3 Decidability Under Temporal Compression

In domains characterized by rapid action, holding remains present but is compressed into brief intervals. These cases exhibit partial decidability, where the structural conditions for choice are present but only minimally differentiated.

In aviation, following engine failure, the pilot engages in rapid stabilization behaviors, including brief verbal exchanges, checklist initiation, and evaluation of potential landing options. Although the interval is highly compressed, recognition is clear and alternatives are considered, even if only briefly. The resulting action reflects a constrained but structured formation process.

In musical improvisation, transitions between motifs and tonal structures occur without visible pause. However, shifts in phrasing, rhythm, and harmonic direction indicate that alternatives remain available within continuous performance. Holding is embedded within ongoing action as controlled modulation rather than interruption. This pattern is consistent with descriptions of optimal performance in flow states, where skilled action proceeds continuously while remaining responsive to fine-grained variation in conditions (Csikszentmihalyi, 1990); the present analysis specifies the structural conditions that allow such responsiveness to operate as choice rather than as automatic execution.

A key distinction emerges between absence of holding and temporal compression. In compressed environments, holding does not disappear but operates at the limit of temporal resolution. These cases do not exhibit full decidability but rather partial formation, in which alternatives are present but only minimally differentiated. This distinction differentiates environments that constrain choice from those that suppress it.

4.4 Holding Without Successful Outcome

The presence of holding does not guarantee successful outcomes. In high-stakes poker, for example, players visibly hesitate, reassess, and consider alternative interpretations of the situation before committing to a decision. These behaviors indicate the presence of holding and the formation of decidability.

Despite this, the resulting action may still lead to unfavorable outcomes. The player may recognize uncertainty, consider alternatives, and still select an option that proves incorrect given hidden information. In such cases, the structure of choice is present, but the outcome reflects the limits of available information rather than the absence of formation.

This distinction reinforces the separation between choice and outcome. The presence of holding and decidability indicates that action reflects a formed choice, even when that choice does not produce a favorable result.

4.5 Absence of Holding and Structural Collapse of Decidability

In environments characterized by continuous signal flow and immediate response requirements, holding is absent and decidability does not form. In open-outcry trading contexts, for example, actors respond instantly to incoming signals through predefined gestures and verbal exchanges. Actions occur without observable pause, reassessment, or preservation of alternatives.

In these cases, recognition may occur, but alternatives do not persist. The structure of the environment compresses the interval between signal and response to the point that holding cannot operate. Action proceeds as execution of dominant or predefined responses rather than as selection among differentiated possibilities.

The absence of holding corresponds consistently with the absence of decidability. Across these cases, no instances are observed in which alternatives are preserved without the presence of holding behaviors. The structural collapse of holding results in the absence of choice, even when actions are later described as decisions.

4.6 Boundary Conditions and Edge Cases

Cases of extreme temporal compression and high expertise provide boundary conditions for the framework. In these instances, holding may be difficult to observe directly but can be inferred from controlled modulation within continuous action.

In high-speed motor response scenarios, for example, actors execute rapid adjustments without visible hesitation. However, the precision and stability of these adjustments suggest the presence of minimal holding at the level of motor control and perceptual integration. These cases indicate that holding may operate below the threshold of visible interruption while still preserving the structural conditions necessary for action.

Independent coding reinforces this interpretation. Across the validation subset, compressed forms of holding are consistently associated with partial or minimally differentiated decidability rather than its absence. No cases are identified in which full decidability emerges without some form of holding, whether extended, compressed, or embedded.

These edge cases refine the framework by clarifying that holding varies in temporal expression while maintaining a consistent structural role. These variations in the expression of holding are summarized in Figure 3.

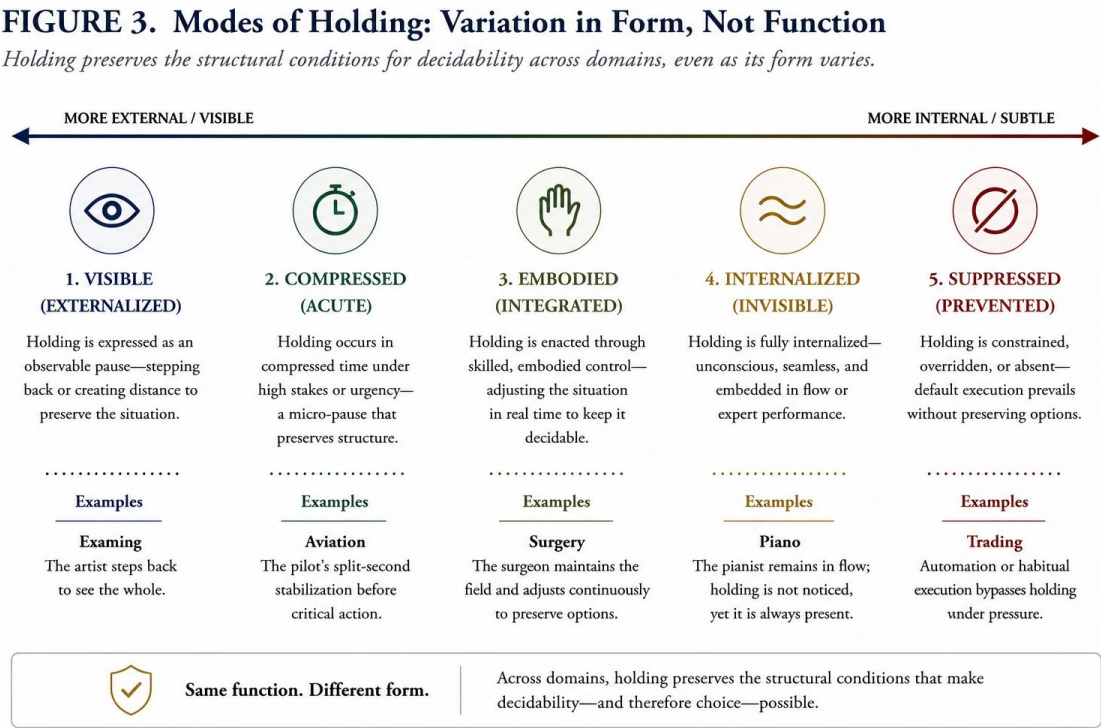


Figure 3. Modes of holding: variation in form, not function. Holding preserves the structural conditions for decidability across domains, even as its form varies from visible to internalized to suppressed.

4.7 Summary of Findings

Across domains, the relationship between holding and decidability is consistent. Where holding is present, the conditions necessary for choice are preserved and decidability forms. In the absence of holding, alternatives collapse and action proceeds without the formation of choice.

Variation in observable behavior reflects differences in the expression of holding rather than differences in its function. Holding may be extended, compressed, or embedded within continuous action, but its presence remains necessary for the formation of decidability. The consistency of this relationship across domains that vary in tempo, expertise, and consequence indicates that the observed pattern is not domain-specific but structural.

These findings establish a structural distinction between choice and behavior that is independent of outcome. They provide empirical support for the claim that choice is not given in action but formed through the preservation of conditions that allow alternatives to exist.

5. Discussion and Theoretical Contribution

5.1 Reframing Choice as a Formed Condition

The findings shift the locus of analysis from selection to the prior formation of situations in which alternatives exist. The dominant tradition in decision research locates choice at the point of selection, with alternatives assumed to exist and decision-making concerned with their evaluation under constraint. Across domains, the present findings show that selection expresses choice only when a prior condition has been achieved. That condition is decidability.

This reframing introduces a structural layer that precedes decision-making. It distinguishes the existence of alternatives from their evaluation. Where recognition is stabilized, features remain available, and alternatives persist under holding, action reflects choice. Where these conditions do not form, action proceeds without the presence of alternatives and is better understood as behavior.

The present framework differs from existing accounts in a specific way. Sensemaking describes how situations are interpreted; recognition-primed decision models describe how experienced actors respond rapidly; and behavioral models describe how alternatives are evaluated under constraint. The current analysis identifies a prior condition common to all three: whether alternatives exist as such at the point of action. Decidability does not replace these perspectives but specifies the structural condition that makes them possible.

The implication is direct. The presence of action is not evidence of choice.

5.2 Holding as a Structural Mechanism

A second contribution is the identification of holding as the mechanism that preserves the conditions of decidability.

Prior perspectives have emphasized interpretation, experience, and attention. The present analysis specifies the structural work that allows these processes to operate. Holding maintains recognition, preserves access to relevant features, and prevents the premature collapse of alternatives under constraint.

Independent coding provides a critical refinement. Holding does not appear as a singular or undifferentiated behavior. Rather, it is consistently identified through a recurring set of observable micro-operations. Across domains, these operations cluster into four functionally distinct forms: stabilization of recognition (e.g., pause, step-back, sustained orientation), preservation of feature access (e.g., scanning, reassessment), maintenance of alternatives (e.g., hesitation, comparison), and controlled modulation of commitment (e.g., micro-adjustment, continuous variation).

These operations vary in temporal expression but remain functionally invariant. In some domains, they appear as visible interruption. In others, they are compressed into brief intervals or embedded within continuous action. Across all cases, their role is consistent: to preserve the structural conditions under which alternatives persist as differentiated possibilities.

This decomposition clarifies that holding is not equivalent to slowing down. It is the capacity to execute these operations under constraint, including at the limits of temporal compression. Expertise does not eliminate holding. It internalizes and accelerates it.

The framework yields a falsifiable implication. If instances can be identified in which alternatives persist as differentiated possibilities in the absence of observable or inferable holding operations, the proposed mechanism would not hold. Conversely, if holding operations are present but alternatives do not persist, the relationship would require revision. The present data do not exhibit such cases. Across all coded events, the presence and degree of holding correspond consistently to the formation and degree of decidability.

This formulation clarifies the relationship to recognition-primed decision making, the closest existing account of expert action under constraint. Recognition-primed models address the question of how experienced actors arrive at action without explicit comparison of alternatives (Klein, 1998, 2008; Lipshitz et al., 2001). The present framework addresses a prior question: under what conditions are alternatives present at all, such that selection among them is structurally possible. These are not competing claims. Recognition-primed accounts describe the mechanism of rapid expert response once a situation has been formed. Decidability specifies the structural conditions under which formation occurs, including the conditions that allow rapid expert response to remain grounded in a situation rather than collapse into reflexive execution. Where recognition-primed models explain how experts choose, the present framework explains when there is something to choose among.

A related but distinct account is provided by flow theory, which describes conditions under which action becomes continuous, immersive, and intrinsically rewarding (Csikszentmihalyi, 1990). Flow emphasizes the subjective experience of optimal engagement and the alignment between skill and challenge. The present framework addresses a different question. It specifies the structural conditions under which alternatives persist as differentiated possibilities at the point of action. Flow explains continuity of action; decidability explains the structural presence of alternatives within that continuity. Under this view, flow can occur in contexts where holding is internalized and alternatives remain available, but it may also occur in contexts where action proceeds continuously without the preservation of alternatives. The two constructs therefore operate at different levels: one experiential, the other structural.

5.3 Choice, Behavior, and Outcome

The framework establishes a structural distinction between choice, behavior, and outcome that is grounded in observable structure at the point of action and does not depend on reported intention or perceived deliberation. Where decidability is present, selection expresses a formed choice; where it is absent, action proceeds as behavior.

Outcome does not resolve this distinction. Actions formed under full decidability may fail; actions that bypass decidability may succeed. Outcome indicates that a result has been produced, not that a choice has been formed. This challenges a central assumption in decision research and practice: that outcome quality reflects decision quality. The present findings demonstrate that outcome and choice are structurally independent.

5.4 Boundary Condition Under Extreme Compression

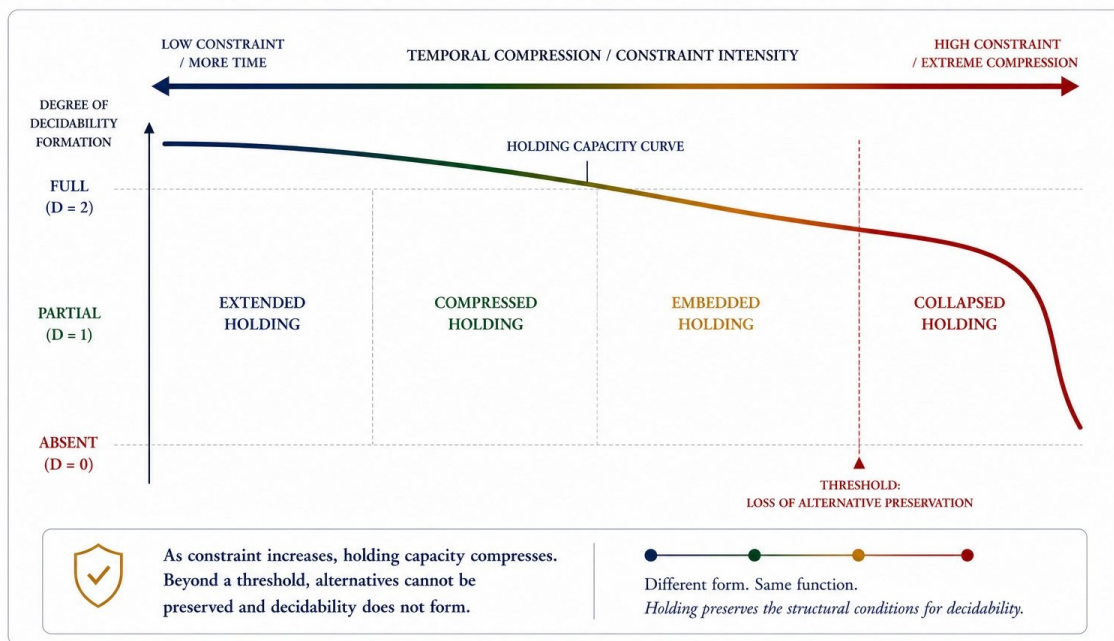
A critical test of the framework arises in cases of ultra-fast, high-quality action that appear to lack any interval of formation. As shown in Section 4.6, holding in such cases operates at the limit of temporal resolution and is inferable from controlled modulation rather than visible pause.

The data identify a boundary condition. As constraint increases, the capacity to execute holding operations diminishes. The relationship between holding and decidability is therefore not binary but continuous. As constraint increases, holding compresses, producing graded forms of decidability. Beyond a threshold, these operations can no longer be sustained, alternatives do not persist, and decidability does not form.

This defines a structural boundary condition: the point at which choice becomes impossible, not due to actor failure, but due to the loss of conditions required for its formation. This relationship is represented in Figure 4.

FIGURE 4. The Gradient of Holding: From Structural Preservation to Collapse

Holding varies along a continuous gradient of temporal expression, shaping the degree to which decidability forms.



Note. D = Decidability (0 = not formed, 1 = partially formed, 2 = structurally decidable).

Figure 4. The gradient of holding: from structural preservation to collapse. Holding varies along a continuous gradient of temporal expression, shaping the degree to which decidability forms. D = decidability (0 = not formed, 1 = partially formed, 2 = structurally decidable).

5.5 Building the Capacity to Form Choice Under Constraint

The implications extend beyond improving decision quality. They concern the development of a more fundamental capability: the ability to form choice under conditions that would otherwise collapse it.

Across the data, the central constraint is not the difficulty of selecting among alternatives. It is the failure of alternatives to persist long enough to be selected. Under pressure, situations collapse into a single dominant response before they become structurally decidable. The practical problem is therefore not primarily one of better evaluation, but of preserving the conditions under which evaluation is possible.

This capability can be specified as three interdependent capacities: recognition discipline, holding capacity, and decidability judgment.

Recognition discipline is the ability to detect that a situation has not yet been formed. It interrupts the tendency to treat signals as fully specified problems and redirects attention to the structuring of the situation itself.

Holding capacity is the ability to preserve the structural conditions required for decidability. As demonstrated in the coding results, this consists of the ability to execute the micro-operations of holding under constraint: stabilizing recognition, maintaining feature access, preserving alternatives, and modulating commitment. This capacity is graded rather than binary. It varies along a continuum of temporal compression, from extended and visible forms to embedded and internalized forms, and ultimately to collapse when constraint exceeds capacity.

Decidability judgment is the ability to determine when a situation has been sufficiently formed such that selection expresses a choice. This is not certainty, but structural sufficiency: alternatives are present, differentiated, and actionable.

These capacities operate as a coordinated system. Recognition discipline initiates formation. Holding capacity preserves structure. Decidability judgment resolves formation into action when structural sufficiency is achieved. Failure at any stage alters the structure of action, either collapsing alternatives prematurely or delaying commitment beyond functional necessity.

The implication for leadership is structural. Leaders do not improve decisions by focusing on selection alone. They improve decisions by ensuring that situations become decidable, by building the capacity, individually and collectively, to preserve the conditions under which alternatives can exist.

In practice, this distinguishes two patterns of leadership under constraint. A leader without these capacities responds to signals as fully formed problems, accelerates toward selection, and treats hesitation as failure of nerve. Action is rapid, often decisive, and indistinguishable in its surface features from action that is structurally formed. A leader with these capacities holds the situation open long enough for recognition to stabilize, for relevant features to become accessible, and for alternatives to differentiate, even under compression. This is not deliberation in the conventional sense. It is the structural work of preserving the conditions that make alternatives exist. The visible behavior may be a question that delays commitment, a reframing that pulls features into view, a refusal to treat the first available response as the only one, or a brief pause that other participants experience as patience but that functions as the active maintenance of structural conditions. Across these expressions, the function is the same: the leader carries the conditions of decidability into moments where they would otherwise collapse. The capacity required at the point of decision is not generated at that point. It is sustained into it. In the trading floor cases, for example, actors operated in conditions where alternatives collapsed before differentiation, illustrating how system-level suppression of holding eliminates the structural possibility of choice; the leadership task in such environments is not faster selection but the design of conditions in which selection can become choice. This formulation extends prior work on leadership as formation at the threshold (Morgan, 2026b), specifying the structural mechanism by which threshold-level leadership is sustained: the preservation of the conditions of decidability under compression.

5.6 Decidability as a System Property

The findings indicate that decidability is not solely a function of individual capability. It is also a property of the environment in which action occurs.

Across cases, the presence or absence of holding is shaped by system conditions. Environments differ in their capacity to preserve recognition, feature availability, and alternatives. In some domains, these conditions are supported. In others, they are systematically suppressed.

High-density, high-velocity environments illustrate this effect. As signal frequency increases and response intervals compress, the micro-operations of holding become increasingly difficult to sustain. Alternatives collapse before they can be formed. Action proceeds as execution of dominant responses rather than as selection among differentiated possibilities. This effect is consistent with empirical findings on strategic decision-making in high-velocity environments, where the structure of the information-processing demand shapes the form and quality of decisions independent of individual capability (Eisenhardt, 1989; Tushman & Nadler, 1978).

This suggests that systems vary in their capacity to sustain holding. Where this capacity is preserved, decidability forms. Where it is suppressed, choice is structurally eliminated.

The implication is direct. Decidability can be designed for or designed out. It is not only a capability of actors. It is a condition of the systems in which they operate, and a constituent of their adaptive capacity. This system-level claim connects the present framework to prior work on the degradation of organizational interpretive capacity under acceleration (Morgan, 2026a): where systemic conditions cannot sustain the operations of holding, decidability does not form, and the system loses the capacity to metabolize the situations it confronts.

5.7 From Phenomenology to Structure

Prior work has described an interval preceding action in which the actor becomes capable of the next move. This interval has been characterized as a moment of formation, an experience of pause, readiness, or alignment that determines whether action will hold.

That account is phenomenological. It captures the lived experience of practitioners across domains but does not specify the structural conditions under which this interval succeeds or fails.

The present analysis provides that specification. Across cases, this interval corresponds to a consistent structural configuration in which recognition is stabilized, features remain available, and alternatives persist under holding. When these conditions are preserved, the situation becomes decidable and action reflects choice. When they are not, action proceeds without the formation of alternatives.

This alignment strengthens both perspectives. The phenomenological account identifies the experience of formation. The structural account specifies the mechanism that produces it. Together, they establish the interval as an observable and measurable component of action under constraint.

At the same time, the findings suggest a broader temporal implication. Formation is not confined to the immediate interval preceding action. In some contexts, the conditions required for action are established in advance, internalized through prior experience, and carried into the moment of response. In highly practiced or stable domains, where the preservation of recognition, feature access, and alternatives has been built up over time, action appears fluid and immediate not because formation is absent, but because it has already occurred.

Formation is therefore distributed across time. When prior formation is sufficient, action proceeds as choice without requiring an extended interval at the point of response. When prior formation is insufficient, the system must attempt to form under constraint, often incompletely. The temporal location of formation varies; its structural function does not.

The interval preceding action is therefore not only a moment in time but a structural phase whose location may vary. Whether extended, compressed, or distributed across prior experience, its function remains invariant: to produce the conditions under which choice can exist.

5.8 Implications for Research

The introduction of decidability opens several directions for research on decision processes.

First, it shifts attention from selection to the formation of alternatives. Decision-making studies can examine the conditions under which alternatives persist or collapse.

Second, it establishes holding as a measurable construct. The present study demonstrates that it can be inferred from observable behavior. Future work may develop more systematic measures across domains.

Third, it introduces a system-level question: how environments enable or suppress the formation of choice. This has implications for research on adaptability, resilience, and organizational design.

5.9 Conclusion

The capacity required at moments of decision is not generated in those moments. It is carried into them. Where the conditions of decidability have been preserved, action expresses choice. Where they have not, action proceeds without it. The central question for decision-making research is therefore not only how actors choose, but whether the conditions required for choice exist. And how often they do not.

6. Boundary Conditions and Scope

6.1 Observability and Inference

The framework advanced in this paper treats decidability as a structural property of action that can be inferred from observable behavior. This introduces an inferential boundary.

The operations that preserve recognition, feature availability, and alternatives are not always directly visible. In some cases, they appear as pause, hesitation, or adjustment. In others, particularly under conditions of expertise or temporal compression, they are embedded within continuous action and may not be externally distinguishable as discrete events.

This limitation is consistent with prior work in sensemaking and naturalistic decision making, which relies on inference from enacted behavior rather than direct access to internal cognitive states (Weick, 1995; Klein, 1998). The present framework extends this approach by specifying the structural conditions that must be inferred when decidability is present.

The implication is precise. Absence of visible interruption does not indicate absence of holding. It indicates that the operations required to preserve structural conditions may occur at a level not directly accessible to

observation. The framework therefore operates within an inferential boundary: it identifies necessary structural conditions for the formation of choice, even when their expression is compressed or internalized.

6.2 Temporal Compression and Structural Limits

The formation of decidability depends on the preservation of structural conditions over time. This introduces a temporal boundary.

The findings demonstrate that holding operates along a continuous gradient of temporal expression. As constraint increases, the capacity to execute holding operations compresses. Under moderate compression, this produces minimally differentiated but still functional forms of decidability. Under extreme compression, the interval available for stabilization approaches the limits of perceptual and motor capacity.

Beyond a critical threshold, the operations required to preserve recognition, feature availability, and alternatives can no longer be sustained. At this point, alternatives do not persist long enough to be differentiated, and decidability does not form. Action proceeds as immediate response rather than as formed choice.

This boundary is structural rather than psychological. It does not reflect failure of the actor, but the loss of conditions required for the formation of choice. The gradient and threshold relationship is represented in Figure 4.

6.3 Structural Suppression of Alternatives

The framework assumes that alternatives can be preserved long enough to become differentiated. This assumption does not hold in all environments.

Some systems are structured in ways that suppress the formation of alternatives. In high-density, high-velocity contexts, signals arrive continuously and response intervals are minimized. Role constraints may further restrict the range of permissible actions. Under these conditions, the micro-operations of holding cannot be sustained. Alternatives collapse before they can form.

This condition is distinct from simplification under constraint. Prior work has emphasized heuristic reduction of complexity (Gigerenzer & Gaissmaier, 2011). The present analysis identifies a more extreme condition: the elimination of alternatives as structural possibilities. In such environments, the absence of choice is not a consequence of bounded rationality but of system design.

This boundary establishes that decidability may be structurally precluded, independent of individual capability.

6.4 Routine Action and Non-Requirement of Decidability

Not all action requires the formation of choice. Many forms of routine or highly practiced behavior are executed without the need to differentiate alternatives at the point of action.

This condition aligns with established accounts of routine action and expertise, in which behavior follows learned patterns without active evaluation of alternatives (March, 1994; Dreyfus & Dreyfus, 1986). The present framework clarifies this condition structurally. Where alternatives are not required, decidability need not form.

This boundary is critical for interpretation. The absence of observable holding in such cases does not indicate failure of the mechanism. It indicates that the conditions requiring its operation are not present.

The distinction becomes consequential when conditions change. When routine responses no longer fit the environment, the capacity to transition from execution to formation determines adaptability.

6.5 Level of Analysis and Distributed Formation

This study focuses on micro-events at the level of individual action. The coding framework captures the formation of decidability within temporally bounded intervals preceding action. This introduces a level-of-analysis boundary.

At the same time, the findings suggest that formation may be distributed across time and across system elements. In some contexts, the conditions required for action are established prior to the moment in which action occurs, reducing the need for visible holding at the point of response. In others, holding may be distributed across roles, structures, or processes rather than localized within a single actor. This is consistent with process-oriented accounts of organizing and sensemaking, in which the work of constituting situations occurs continuously and across multiple actors rather than at a single point of decision (Weick et al., 2005).

The present analysis does not directly model these distributed dynamics. Its contribution is to specify the micro-level mechanism. The extension of this mechanism to collective and organizational levels remains an area for further investigation, and connects directly to prior work on systemic destabilization under degraded interpretive capacity (Morgan, 2026a), where the failure mode is not individual but structural.

The validation strategy adopted here emphasizes structural-pattern reproducibility over formal inter-rater reliability metrics. Future work may extend the framework using larger samples and quantified agreement statistics.

6.6 Scope, Disconfirmation, and Generalization

The framework yields clear disconfirming conditions. If instances can be identified in which alternatives persist as differentiated possibilities in the absence of observable or inferable holding operations, the proposed mechanism would not hold. Conversely, if holding operations are present but alternatives do not persist, the relationship between holding and decidability would require revision. The present data do not exhibit such cases; across all coded events, the presence and degree of holding correspond consistently to the formation and degree of decidability. The framework remains open to empirical testing under conditions not captured in the current dataset.

Generalization in this study is analytic rather than statistical. The cross-domain design identifies structural regularities by selecting cases that vary in tempo, expertise, and consequence, providing a strong test of invariance, but the dataset is not intended to represent a statistically generalizable sample. The contribution rests on the consistency of mechanism across heterogeneous conditions rather than on population inference. The claim advanced is accordingly bounded: where the operations of holding are preserved, decidability forms; where they are not, it does not. This claim is supported across the domains examined and remains open to further testing under expanded sampling and quantified validation procedures.

6.7 Summary of Boundary Conditions

The boundaries identified here define the scope of the framework. Decidability depends on the preservation of recognition, feature availability, and alternatives over time, and is subject to limits of observability, temporal compression, structural suppression, and level of analysis. It is not required for all forms of action, but it is

necessary where adaptation depends on the formation of alternatives. These boundaries specify the framework's domain of applicability and clarify the conditions under which it holds.

References

- Cohen, M. D., March, J. G., & Olsen, J. P. (1972). A garbage can model of organizational choice. *Administrative Science Quarterly*, 17(1), 1–25. <https://doi.org/10.2307/2392088>
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper & Row.
- Cyert, R. M., & March, J. G. (1963). *A behavioral theory of the firm*. Prentice-Hall.
- Dreyfus, H. L., & Dreyfus, S. E. (1986). *Mind over machine: The power of human intuition and expertise in the era of the computer*. Free Press.
- Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, 32(3), 543–576. <https://doi.org/10.5465/256434>
- Endsley, M. R. (1995). Toward a theory of situation awareness in dynamic systems. *Human Factors*, 37(1), 32–64. <https://doi.org/10.1518/001872095779049543>
- Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, 100(3), 363–406. <https://doi.org/10.1037/0033-295X.100.3.363>
- Evans, J. St. B. T., & Stanovich, K. E. (2013). Dual-process theories of higher cognition: Advancing the debate. *Perspectives on Psychological Science*, 8(3), 223–241. <https://doi.org/10.1177/1745691612460685>
- Gigerenzer, G., & Gaissmaier, W. (2011). Heuristic decision making. *Annual Review of Psychology*, 62, 451–482. <https://doi.org/10.1146/annurev-psych-120709-145346>
- Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–291. <https://doi.org/10.2307/1914185>
- Klein, G. (1998). *Sources of power: How people make decisions*. MIT Press.
- Klein, G. (2008). Naturalistic decision making. *Human Factors*, 50(3), 456–460. <https://doi.org/10.1518/001872008X288385>
- Lipshitz, R., Klein, G., Orasanu, J., & Salas, E. (2001). Taking stock of naturalistic decision making. *Journal of Behavioral Decision Making*, 14(5), 331–352. <https://doi.org/10.1002/bdm.381>
- March, J. G. (1994). *A primer on decision making: How decisions happen*. Free Press.
- Morgan, D. S. (2026a). *Acceleration without metabolization: A theory of systemic destabilization under degraded organizational interpretive capacity* (v2.0). Zenodo. <https://doi.org/10.5281/zenodo.19511118>
- Morgan, D. S. (2026b). *Before the mark: Leadership as formation at the threshold* (v1.0). Zenodo. <https://doi.org/10.5281/zenodo.20028560>
- Morgan, D. S. (2026c). *Before choice: The structural formation of decidability under constraint* (v1.0). Zenodo. <https://doi.org/10.5281/zenodo.20031855>

- Payne, J. W., Bettman, J. R., & Johnson, E. J. (1993). *The adaptive decision maker*. Cambridge University Press.
- Pentland, B. T. (1999). Building process theory with narrative: From description to explanation. *Academy of Management Review*, 24(4), 711–724. <https://doi.org/10.5465/amr.1999.2553249>
- Polanyi, M. (1966). *The tacit dimension*. Doubleday.
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Basic Books.
- Simon, H. A. (1955). A behavioral model of rational choice. *Quarterly Journal of Economics*, 69(1), 99–118. <https://doi.org/10.2307/1884852>
- Simon, H. A. (1979). Rational decision making in business organizations. *American Economic Review*, 69(4), 493–513.
- Stanovich, K. E., & West, R. F. (2000). Individual differences in reasoning: Implications for the rationality debate? *Behavioral and Brain Sciences*, 23(5), 645–665. <https://doi.org/10.1017/S0140525X00003435>
- Suchman, L. A. (1987). *Plans and situated actions: The problem of human-machine communication*. Cambridge University Press.
- Tushman, M. L., & Nadler, D. A. (1978). Information processing as an integrating concept in organizational design. *Academy of Management Review*, 3(3), 613–624. <https://doi.org/10.5465/amr.1978.4305791>
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124–1131. <https://doi.org/10.1126/science.185.4157.1124>
- Varela, F. J., Thompson, E., & Rosch, E. (1991). *The embodied mind: Cognitive science and human experience*. MIT Press.
- Vera, A. H., & Simon, H. A. (1993). Situated action: A symbolic interpretation. *Cognitive Science*, 17(1), 7–48. https://doi.org/10.1207/s15516709cog1701_2
- von Neumann, J., & Morgenstern, O. (1944). *Theory of games and economic behavior*. Princeton University Press.
- Weick, K. E. (1995). *Sensemaking in organizations*. Sage Publications.
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, 16(4), 409–421. <https://doi.org/10.1287/orsc.1050.0133>

About the Author

David S. Morgan is a CEO (Retired), Doctoral Candidate at Walden University, and practitioner-scholar whose work centers on organizational theory, leadership formation, and the conditions under which complex systems metabolize change. He is the author of more than a dozen books across leadership, innovation, creativity, and human development, including *Flip the Twitch: Unlocking the Neuroscience of Curiosity to Drive Leadership, Innovation, and Growth*, *Art Is Leadership: Formation, Not Performance*, and *The Joy of Discontent*. His scholarly work develops the Morgan Working Paper Series, anchored by the AWM theory of organizational metabolism and the structural account of decidability.

Web: davidsmorgan.com | ORCID: [0009-0006-1274-1238](https://orcid.org/0009-0006-1274-1238) | LinkedIn: linkedin.com/in/davidmorgan12