

To Infinity and Beyond The Quarterly Report

Do you think further ahead because of sustainability, or because of how the decision is structured?

Stockholm School of Economics

BSc Thesis in Retail Management

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Abstract

Sustainability decisions are assumed to activate more long-term reasoning because they involve distant consequences and intertemporal trade-offs. At the same time, prior research remains divided between treating temporal orientation as a stable individual characteristic and viewing it as shaped by organizational context and situational demands. What remains unclear is whether the same individual reasons differently about time depending on the decision being evaluated. This study addresses that question through a within-person comparative design. Drawing on eleven semi-structured interviews with decision-makers in the Nordic fashion industry, it compares how the same individuals evaluated a sustainability decision and a conventional business decision using Emirbayer and Mische's (1998) chordal triad. The findings show that temporal reasoning shifted within individuals, but not consistently toward sustainability decisions. Instead, long-horizon reasoning was more strongly associated with the intertemporal structure of the decision itself, while organizational scaffolding shaped whether such reasoning could be sustained. The study shifts attention from sustainability as a domain to the structural conditions that make future-oriented reasoning possible.

Keywords: *cognitive frameworks, temporal orientation, temporal reasoning, intertemporal decision-making, managerial cognition, sustainability decisions*

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* *

Key Definitions

Term	Definition
Chordal Triad	The three modes of reasoning (iterative, practical-evaluative and projective) are simultaneously present, but with one dominating depending on the situation (Emirbayer and Mische, 1998).
Decision Domain	The category of a decision, such as sustainability-related or conventional business decisions.
Decision Structure	The set of structural features that characterize an individual decision in this study, its consequence chain length, payoff distance, outcome uncertainty, and reversibility (Bansal and DesJardine, 2014; Slawinski and Bansal, 2015).
Intertemporal Structure	How present action and future consequences are linked across time. In this study, decision structure (above) captures the specific form of that link (Bansal and DesJardine, 2014; Slawinski and Bansal, 2015).
Iterative Reasoning	Reasoning anchored in past experience and established routines (Emirbayer and Mische, 1998).
Practical-evaluative Reasoning	Reasoning focused on immediate constraints and what is feasible right now (Emirbayer and Mische, 1998).
Projective Reasoning	Reasoning oriented toward an imagined future (Emirbayer and Mische, 1998).
Temporal Orientation	How an individual relates to the past, present, or future when making decisions (Das, 1987; Emirbayer and Mische, 1998).
Temporal Reasoning	How temporal orientation is employed when evaluating a specific decision (Emirbayer and Mische, 1998).

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1. Introduction

1.1 Sustainability and the Problem of Time

What future is imagined in a sustainability decision? Somewhere in the evaluation, the decision-maker determines how far ahead to look, which future consequences feel real enough to matter, and what sacrifices the present is willing to make for futures that do not yet exist. Time operates as an invisible backdrop to every decision, so taken for granted it rarely surfaces as a choice. Yet, the way decision-makers position themselves in time shapes which consequences receive attention and ultimately which actions organisations pursue. Understanding how this process unfolds becomes particularly important when decisions require balancing immediate demands against outcomes that may emerge only in the future.

1.2 What Research Has Established

Research increasingly suggests that organizational responses to sustainability depend not only on external pressures, but also on how decision-makers interpret and make sense of sustainability issues (Hahn et al., 2014). Within the managerial cognition literature, scholars have shown that how individuals relate to time shapes strategic behaviour (Das, 1987; Nadkarni and Chen, 2014) influencing whether actors prioritize immediate performance or sustain investments with delayed returns (Slawinski and Bansal, 2015; Lavery, 1996). Organizational temporality research further shows that sustainability often conflicts with short-cycle organizational structures such as quarterly targets and seasonal deadlines (Reinecke and Ansari, 2015). Together, this literature establishes time as central to sustainability decision-making.

1.3 The Gap and Research Purpose

Despite broad agreement that time shapes sustainability decisions, prior research differs in how temporal orientation itself is understood. Much of the individual-level literature treats it as a relatively stable characteristic of the decision-maker, implying that some individuals consistently think further into the future than others (Das, 1987; Nadkarni and Chen, 2014). In contrast, organizational temporality research argues that temporal reasoning shifts with organizational

structures, situational demands, and competing time pressures (Orlikowski and Yates, 2002; Reinecke and Ansari, 2015). This raises an unresolved question:

Does the same individual reason about time differently depending on the decision being evaluated, and what influences any such shift? More specifically, when faced with sustainability versus a conventional business decision?

This question becomes particularly important in sustainability, where tensions between immediate performance and distant consequences are unusually explicit (Bansal and DesJardine, 2014; Slawinski and Bansal, 2015). If temporal reasoning shifts within the same individual, then long-horizon reasoning may depend less on stable individual traits and more on how decisions are structured and evaluated.

1.4 This Study

To examine this question, the study adopts a qualitative theory-building approach based on semi-structured interviews with eleven decision-makers across sustainability, commercial, operational, and leadership roles in the Nordic fashion industry (Pedersen and Gwozdz, 2014). The industry provides a relevant empirical setting because short seasonal cycles and demands for speed coexist with increasing pressure for longer-term sustainability commitments (Evans and Vaccari, 2020; Reinecke and Ansari, 2015). Participants reflected on one recent sustainability decision and one recent conventional business decision, allowing a within-person comparison that holds the individual constant while examining how temporal reasoning may vary across decision contexts (Wiebe, 2010). To analyze these variations, the study applies Emirbayer and Mische's (1998) chordal triad of iterative, projective, and practical-evaluative reasoning.

1.5 Findings and Contribution

Findings from this study contribute in three ways. First, they provide within-person evidence that temporal reasoning varies across decisions, challenging research that treats temporal orientation as a relatively stable individual characteristic. Second, they shift attention from whether a decision concerns sustainability to the intertemporal structure of the decision itself. Third, they show that organizational contexts shape individuals' ability to sustain future-oriented reasoning. Together, the findings suggest that understanding decisions, sustainability or not, may require looking beyond who

decision-makers are and toward how decisions themselves are structured and the conditions in which they are sustained.

2. Conceptual Framework

This conceptual framework builds the theoretical foundation for one central question: how individual decision-makers reason about time when evaluating sustainability compared to conventional business decisions. To answer this, the framework addresses an unresolved tension in the literature. Some researchers argue that how individuals relate to time, whether they tend to think short-term or long-term, is a relatively stable characteristic that shapes how they reason about decisions (Das, 1987; Zimbardo and Boyd, 1999; Nadkarni and Chen, 2014). Others argue that temporal reasoning is shaped by organizational contexts such as roles and deadlines (Orlikowski and Yates, 2002; Kaplan and Orlikowski, 2013). Research on organizational temporality further suggests that actors continuously navigate competing temporal demands within organizations (Reinecke and Ansari, 2015). What remains underexplored however is whether the same individual thinks about time differently when evaluating a sustainability decision compared to a conventional business decision.

The framework first introduces cognitive frameworks and how they shape managerial interpretation (Walsh, 1995; Hambrick and Mason, 1984). It then examines whether temporal reasoning reflects relatively stable orientations (Das, 1987; Shipp, Edwards and Lambert, 2009) or emerges through organizational and situational contexts (Emirbayer and Mische, 1998; Reinecke and Ansari, 2015). Finally, sustainability decision-making is positioned as a theoretically revealing context for examining whether the same individual reasons differently across organizational decisions.

2.1 What is a Cognitive Framework?

Decision-makers do not approach strategic issues neutrally. They rely on cognitive frameworks to simplify and interpret complexity (Schwenk, 1988; Stubbart, 1989). Cognitive frameworks are mental schemas individuals use to make sense of situations. They shape what individuals attend to and how they interpret information (Walsh, 1995; Daft and Weick, 1984) and subsequently organizational

action (Dutton and Jackson, 1987). These frameworks make complex environments manageable, but also narrow attention toward some cues over others (Walsh, 1995; Hahn et al., 2014; Ocasio, 1997). Because cognitive frameworks are shaped by professional experience and organizational context, two decision-makers can interpret the same situation very differently (Hambrick and Mason, 1984; Dutton and Jackson, 1987).

Cognitive frameworks differ across decision-makers and may evolve over time through changing organizational and environmental contexts (Barr, Stimpert and Huff, 1992; Nadkarni and Barr, 2008). Professional experience and repeated exposure to organizational contexts shape these frameworks (Walsh, 1995; Hambrick and Mason, 1984). Barr, Stimpert and Huff (1992) show that industry disruption may prompt managers to revise their mental maps through learning, while Tripsas and Gavetti (2000) demonstrate that established cognitive frameworks can become entrenched and constrain adaptation. Cognitive frameworks are therefore neither fixed nor infinitely malleable. They emerge through ongoing interaction between individuals and organizational environments (Nadkarni and Barr, 2008). One important dimension of variation is temporal orientation: how decision-makers relate to time when evaluating action (Orlikowski and Yates, 2002; Das, 1987).

2.2 How is Time Perceived?

Time is a fundamental yet often implicit feature of organisational decision-making, and cognition itself is inherently temporal (George and Jones, 2000; Wiebe, 2010). Deadlines, reporting cycles, and planning horizons embed temporal assumptions into organizational life, shaping what decision-makers attend to even when these assumptions remain implicit (Bluedorn, 2002; Orlikowski and Yates, 2002). How decision-makers relate to time therefore shapes not only when they act, but also what they see as worth acting upon (Ancona et al., 2001). The following sections examine temporal orientation, consider whether it is relatively stable or dynamic, and introduce the chordal triad as the analytical lens applied in this study.

2.2.1 Temporal Orientation as a Dimension of Cognitive Frameworks

Temporal orientation describes how individuals relate to the past, present, and future when interpreting and evaluating situations (Zimbardo and Boyd, 1999). Within managerial cognition

research, it captures how decision-makers perceive time horizons, prioritize trade-offs, and evaluate consequences across time (Das, 1987; Nadkarni and Chen, 2014). Temporal orientation therefore shapes not only when managers act, but also what they see as worth acting upon (Ancona et al., 2001; Bluedorn, 2002; Das, 1987; Lumpkin and Brigham, 2011). At the executive level, temporal focus has been linked to strategic choices including decision comprehensiveness (Lin et al., 2019), competitive aggressiveness and new product introduction speed (Nadkarni, Chen and Chen, 2016), and responses to environmental change (Nadkarni and Barr, 2008). Despite extensive evidence that perceptions of time influence decision-making, the literature remains divided on how temporal orientation itself should be understood (Ancona et al., 2001).

2.2.2 Is The Way We Think About Time a Stable Trait or Dynamic?

The literature broadly presents two views of temporal orientation: one treating it as relatively stable at the individual level (Das and Teng, 2001; Nadkarni and Chen, 2014), and another treating it as shaped by organizational contexts and temporal structures (Orlikowski and Yates, 2002). This distinction matters because each perspective implies a different understanding of how time influences decision-making, and whether temporal reasoning reflects enduring individual tendencies or shifts across contexts.

2.2.2.1 The Stable View

The stable-trait perspective argues that individuals carry relatively enduring ways of relating to time across situations (Zimbardo and Boyd, 1999; Das, 1987). Decision-makers with shorter-term orientations tend to prioritize immediate outcomes, while those with longer-term orientations are more likely to prioritize investments with distant returns (Laverty, 1996; Das, 1987).

Empirical research supports this perspective. Nadkarni and Chen (2014) suggest that executives' temporal focus influences strategic behavior, with variation in temporal focus associated with differences in firms' pace of new product introductions. Chen and Nadkarni (2017) further show that temporal dispositions such as time urgency and pacing style influence leadership behavior and corporate entrepreneurship outcomes. Similarly, Lin et al. (2019) find that managers with stronger

long-term orientations demonstrate greater comprehensiveness, creativity, and speed in strategic decision-making by considering broader alternatives and generating more novel options.

At the same time, research suggests that these orientations develop through professional experience and role exposure rather than emerging as fixed dispositions. Shipp, Edwards and Lambert (2009) argue that temporal focus stabilizes as repeated patterns of attention become reinforced through experience and career socialization. Sustained exposure to professional roles and organizational routines gradually produces the enduring orientations this perspective describes. This characterization of temporal orientation as a stable trait is largely specific to the managerial cognition and strategic management literature. Adjacent research in judgement and decision-making, behavioral economics, and consumer behavior has long treated intertemporal preferences as situational rather than fixed, showing that how individuals weigh present against future outcomes shifts with features such as outcome framing, uncertainty, and consequence representation (Frederick, Loewenstein and O'Donoghue, 2002; Soman et al., 2005). The contrast developed in this study, between stable and dynamic views, therefore applies specifically to the management literature on which it builds.

This perspective offers a limited explanation for how individuals navigate competing temporal demands across decisions. Wiebe (2010) demonstrates variation in how managers construct time in response to the same change event. Yet, consider a fashion industry decision-maker evaluating a supplier contract one week and a multi-year sustainability investment the next. The stable-trait perspective would predict that the same individual approaches both decisions with a rather consistent temporal orientation, despite the decisions differing fundamentally in temporal structure. One centers on immediate operational concerns, while the other involves uncertain consequences unfolding over longer horizons.

If the same individual reasons around immediate feasibility in one decision but relies on imagined future consequences in another, the question becomes what enables this variation. Organizational actors routinely navigate quarterly reporting cycles, seasonal planning rhythms, and long-term strategic commitments within the same role (Reinecke and Ansari, 2015; Orlikowski and Yates, 2002). The stable-trait perspective is therefore limited in explaining how the same individual may

shift temporal reasoning across decisions, and what features of those decisions might prompt such shifts.

2.2.2.2 The Dynamic View

The dynamic perspective argues the opposite. Rather than treating temporality as a stable trait, it views time in organizations as actively constructed in response to situational demands (Emirbayer and Mische, 1998), shaped by organizational context, role demands, experience, and the nature of the decision itself (Kaplan and Orlikowski, 2013; Trope and Liberman, 2010). Orlikowski and Yates (2002) show that organizations produce recurring temporal practices that become taken-for-granted features of organizational life through repeated enactment. What appears to be a stable orientation may therefore reflect repeated exposure to similar temporal structures rather than stability across situations. Kaplan and Orlikowski (2013) similarly show that temporal work within strategy projects is dynamic and continuously negotiated.

Yet, these perspectives stop short of explaining how temporal reasoning shifts within the individual decision-maker. Orlikowski and Yates (2002) describe how temporal structures emerge organizationally, but not how individuals move between different temporal modes. Kaplan and Orlikowski (2013) come closer by showing how actors construct temporal justifications for strategic choices, but their focus remains on collective negotiation between colleagues rather than shifts within a single individual across decisions. Similarly, Reinecke and Ansari (2015) show that organizations contain multiple competing temporal structures that actors must interpret and reconcile, but their analysis centers on interaction between actors rather than within individual cognition.

Trope and Liberman (2010) move closer to the individual cognitive level by arguing that temporal distance is partly situationally induced. How distant an event feels, and therefore how abstractly or concretely it is understood, shifts with contextual cues rather than reflecting a fixed characteristic. Within the dynamic perspective, the question is therefore not simply whether an individual is “future-oriented,” but what prompts different ways of reasoning, and how the past, present, and future enter the evaluation of action. Temporal reasoning becomes an interpretive process through

which individuals reconcile competing temporal demands rather than simply express a fixed orientation. This process is shaped partly by the temporal structures organizations reproduce through recurring practices, rhythms, and expectations (Kaplan and Orlikowski, 2013; Orlikowski and Yates, 2002).

Yet, what this looks like cognitively within the individual remains underdeveloped. Wiebe (2010) comes closest by theorizing temporal reasoning as an active interpretive process, but the analysis remains situated within a single organizational change event and does not examine how the same individual reasons differ across decision types. Existing research therefore tends to locate temporality either between actors or between actors and organizational structures, rather than within the cognition of a single decision-maker across different decisions. A framework is therefore needed that operates within the individual, across decisions, and can accommodate both stability and variation simultaneously

2.2.3. Analytical Lens: The Agentic View of Time

Rather than treating the stable and dynamic perspectives as mutually exclusive, this study draws on a framework that can accommodate both. Emirbayer and Mische's (1998) chordal triad conceptualizes temporal orientation as multidimensional rather than singular. This allows for the possibility that individuals reason consistently across situations, while also allowing for shifts in temporal reasoning depending on the decision at hand. Where the stable-trait perspective predicts consistency and the dynamic perspective emphasizes situational responsiveness, the chordal triad treats both as possible empirical patterns rather than competing theoretical commitments. This study therefore applies the chordal triad to analyze the dominant temporal orientation through which decision-makers interpret and evaluate decisions, while remaining open to variation across decisions.

Emirbayer and Mische (1998) argue that agency is fundamentally temporal. Individuals interpret and respond to situations by relating past experiences, future possibilities, and present conditions to one another. They analytically distinguish three dimensions of agency: iteration, projectivity, and practical-evaluation, which coexist within action. Although one orientation may become dominant in a given situation, the others remain present in the background. This means that the same decision-maker may rely heavily on routines and prior experience in one decision, while focusing

more on future possibilities or immediate constraints in another. While this study is not directly concerned with agency, the chordal triad provides a useful framework for analyzing how decision-makers reason about time across different decisions (Wiebe 2010).

The **iterative** dimension becomes visible when actors rely on precedent, established routines, or prior organizational experience when evaluating decisions. Rather than simply recalling the past, it captures how past experiences become embedded in habitual ways of thinking and acting that shape present evaluation. The **projective** dimension becomes visible when actors evaluate decisions in relation to imagined future outcomes, aspirations, and longer-term trajectories. Rather than simply reflecting “long-term thinking,” it captures how imagined futures shape present action. The **practical-evaluative** dimension becomes visible when actors evaluate decisions in relation to immediate constraints, competing priorities, and practical demands. It captures how present conditions shape decision-making under uncertainty and practical pressure.

Because all three orientations coexist within action, the chordal triad makes it possible to analyze variation within the same individual across decisions. Rather than assuming that individuals possess a single stable orientation toward time, the framework allows temporal reasoning to vary depending on how situations are interpreted and evaluated (Wiebe, 2010).

2.3 Focal Domain: Sustainability Decisions

Sustainability decisions make the tension between stable and dynamic views of temporal reasoning particularly visible. Sustainability often requires decision-makers to absorb costs in the present while evaluating consequences that may emerge years later, if at all (Slawinski and Bansal, 2012, 2015; Bansal and DesJardine, 2014). These consequences are frequently dispersed across actors, locations, and future conditions the decision-maker will never directly experience, but instead must imagine (Trope and Liberman, 2010). Conventional business decisions, by contrast, are more often evaluated through clearer and more quantifiable performance measures that can be more directly allocated across time (Laverty, 1996; Bansal and DesJardine, 2014). If temporal reasoning shifts within the same individual across decisions, the contrast between sustainability and conventional business decisions provides a particularly revealing setting in which to examine it.

Time is central to sustainability because sustainability fundamentally involves managing intertemporal trade-offs between present and future needs (Bansal and DesJardine, 2014; WCED, 1987). Sustainability decisions are distinctive because they require decision-makers to evaluate immediate and relatively certain costs against consequences that are uncertain, non-monetary, and unevenly distributed across time horizons (Bansal and DesJardine, 2014; Lavery, 1996; Slawinski and Bansal, 2015). Sustainability therefore introduces a particularly visible intertemporal tension into organizational decision-making (Loewenstein and Thaler, 1989). Research has repeatedly shown that organizations struggle to balance these competing demands, as short-term performance pressures often dominate strategic evaluation (Lavery, 1996). At the firm level, organizational responses to climate change have also been shown to reflect different temporal perspectives, with some firms adopting narrow and immediate responses while others pursue more integrated long-term approaches (Slawinski and Bansal, 2012).

This tension becomes particularly relevant at the cognitive level. Prior research suggests that executives with longer-term orientations are more likely to support sustainability investments and long-horizon strategic commitments (Nadkarni and Chen, 2014; Wang and Bansal, 2012; Flammer and Bansal, 2017). However, is this due to sustainability? Trope and Liberman (2010) argue that psychologically distant issues are evaluated more abstractly, encouraging higher-level construals focused on broader consequences and desirability rather than immediate feasibility. Hahn et al. (2014) show that sustainability issues often generate cognitive tensions because economic and sustainability demands must be held simultaneously. Kim et al. (2019) argue that sustainable action may emerge not only through distant future reasoning, but also through perceiving ongoing processes and interconnected resource flows across time. Sustainability decisions may therefore activate more projective forms of reasoning not necessarily because they are “sustainability” decisions, but because they involve distant, uncertain, and extended consequence chains. These studies suggest that the difficulty of sustainability decisions may stem less from the sustainability domain itself than from the intertemporal structures embedded within particular decisions.

Sustainability decisions therefore provide a theoretically useful setting for examining how decision-makers reason about time when evaluating organizational trade-offs. They make temporal tensions unusually explicit, while varying substantially in uncertainty, payoff distance, reversibility, and future consequence chains (Bansal and DesJardine, 2014). This makes sustainability an especially

revealing context for applying Emirbayer and Mische's (1998) chordal triad to examine how temporal reasoning shifts across decisions within the same individual.

2.4 Research Gap

Existing research has not examined whether the same individual reasons about time differently depending on the specific decision being evaluated. Individual-level studies typically treat temporal orientation as a relatively stable characteristic linked to broad strategic behaviors or organizational outcomes (Das and Teng, 2001; Nadkarni and Chen, 2014). Organizational-level research, in contrast, examines how firms collectively manage competing temporal demands (Kaplan and Orlikowski, 2013; Reinecke and Ansari, 2015; Slawinski and Bansal, 2015; Wiebe, 2010), but not what occurs within the cognition of the individual decision-maker during decision evaluation.

Emirbayer and Mische's (1998) chordal triad suggests that different temporal orientations may become foregrounded depending on the situation. Yet the literature remains unclear about what drives such shifts within the same individual. One possibility is that sustainability as a domain activates more projective reasoning because it directs attention toward distant futures and long-term consequences. Another is that temporal reasoning is shaped by the structural features of the decision itself, such as payoff distance, uncertainty, reversibility, and consequence-chain length (Das and Teng 2001; Bansal and DesJardine, 2014; Slawinski and Bansal, 2015). To the researchers' knowledge, this distinction has not been empirically examined at the individual decision-making level.

This distinction matters because it changes where the source of temporal reasoning is located. If sustainability itself activates more projective reasoning, then the challenge is primarily one of framing decisions. If temporal reasoning instead shifts in response to structural features, then the challenge lies in how decisions are organized and evaluated.

To examine this, the study compares sustainability and conventional business decisions within the fashion industry. Sustainability decisions are analytically useful because they make intertemporal tensions unusually explicit (Bansal and DesJardine, 2014; Slawinski and Bansal, 2015), while conventional business decisions are more often tied to shorter horizons and clearer feedback cycles

aligned with operational rhythms (Orlikowski and Yates, 2002; Evans and Vaccari, 2020). This contrast makes the two domains useful for examining whether temporal reasoning shifts within the same individual across decisions.

This study therefore asks: Does the same individual reason about time differently depending on the decision being evaluated, and what influences any such shift? More specifically, when evaluating sustainability versus conventional business decisions?

3. Methodology

3.1 Research Approach

This study adopts a qualitative, theory-building approach grounded in Eisenhardt's (1989) method for building theory from case study research. The research question concerns how temporal reasoning shifts within the same individual across decision contexts, a situational and subjectively experienced process that is difficult to capture through standardized measures (Emirbayer and Mische, 1998). Within the managerial cognition and strategic management literature, quantitative approaches have typically operationalized temporal orientation as a relatively stable individual trait (Das, 1987; Shipp, Edwards and Lambert, 2009). This characterization does not extend to all individual-level research on time, judgement and behavioural economics research has long treated intertemporal preferences as situational and varying with features such as framing and outcome uncertainty (Frederick, Loewenstein and O'Donoghue, 2002; Soman et al., 2005). The contrast developed here is therefore specific to the managerial cognition and organizational temporality literature this study builds on.

This characterization makes such measures less suited to capturing the situated, subjectively experienced process this study examines (Emirbayer and Mische, 1998). Semi-structured interviews were deemed better suited in allowing temporal reasoning to emerge through how individuals describe and justify decisions in practice, supporting the studies of abductive theory development where existing frameworks do not yet explain which decision characteristics may activate shifts in temporal reasoning (Eisenhardt, 1989; Bell, Bryman and Harley, 2019). The study was guided by sensitizing concepts related to the chordal triad (Emirbayer and Mische, 1998) and intertemporal

decision structure (Bansal and DesJardine, 2014), while remaining open to patterns emerging from the cases themselves. Following Eisenhardt's (1989) recommendation to select theoretically contrasting cases, sustainability decisions were selected because they are associated with stronger intertemporal tensions (Bansal and DesJardine, 2014), while conventional business decisions are generally more aligned with the dominant clock-time rhythms of the fashion industry (Evans and Vaccari, 2020; Orlikowski and Yates, 2002).

3.2 Research Design

The study adopted a within-person comparison design (Eisenhardt, 1989). The interview design moved progressively from personal temporal orientation, to organizational context, to two comparable decision reflections. Sustainability decisions were selected as a comparison point because they make intertemporal tension more visible, whereas conventional business decisions more often align with the dominant clock-time rhythms of the fashion industry (Pedersen & Gwozdz, 2014; Bansal and DesJardine, 2014; Evans and Vaccari, 2020; Orlikowski and Yates, 2002). By holding the individual constant, this allowed the study to distinguish individual variation from the temporal reasoning between decision contexts. The semi-structured format ensured comparability across interviews while still allowing follow-up probing when participants revealed important temporal tensions (Bell, Bryman and Harley, 2019).

3.2.1 Semi-Structured Interview Design

The interview opened by mapping the participants' organizational role, industry experience, and decision responsibility. This established whether participants were reflecting on decisions they had personally evaluated rather than merely implemented, and provided context for interpreting how organizational temporal structures shaped subsequent reasoning (Hambrick and Mason, 1984).

The interview then established a personal temporal baseline by exploring how participants related to planning, uncertainty, and future consequences in their private lives. This was analytically important because individual-level research often treats temporal orientation as a relatively stable tendency

(Das, 1987; Zimbardo and Boyd, 1999), and a personal baseline provided a reference point against which later professional and decision-specific shifts could be evaluated. Participants then reflected on how organizational planning systems and reporting cycles shaped their work, drawing on Orlikowski and Yates' (2002) concept of temporal structuring to capture how organizational rhythms interacted with individual cognition before the decision comparison was introduced.

Each participant reflected on one conventional business decision and one sustainability decision, both involving present costs and future consequences. Requiring an intertemporal element in both decisions prevented the design from assuming that only sustainability decisions involve long-term trade-offs (Bansal and DesJardine, 2014), allowing the study to examine whether sustainability itself activated distinct temporal reasoning or whether shifts reflected the underlying structure of the decision. Both sections followed the same probe structure and sequence to ensure that differences in reasoning could be attributed to the decision context rather than the interview design.

The conventional business decision was discussed first to reduce priming effects and reduce the risk of socially desirable sustainability narratives (Kvale, 1996). The questioning strategy avoided naming theoretical constructs such as 'temporal orientation' to prevent participants from rationalizing or performing a particular orientation rather than describing how they actually reasoned through the decision (Park et al., 2017). Participants reflected on how far into the future they considered consequences, how they weighed present costs against future ones, and whether others involved understood the timeline differently. The sustainability section additionally invited direct comparison while both decisions remained cognitively active, encouraging concrete decision-specific reflection rather than broader generalizations about sustainability and long-term thinking.

The final section asked participants to compare the two decisions directly and reflect on whether their temporal reasoning remained consistent. Positioning this comparison last meant both decision accounts had been fully developed, reducing the risk of abstract or socially expected claims about sustainability and long-term thinking (Kvale, 1996). The interview closed with an open-ended question on what sustainability was 'trying to achieve' and a final invitation for any reflections the participant wished to share (Bell, Bryman and Harley, 2019).

3.3 Empirical Setting

The Nordic fashion industry provided a theoretically relevant setting because it exposes individuals to competing temporal demands within everyday decision-making (Pedersen and Gwozdz, 2014; Reinecke and Ansari, 2015). Fashion organizations operate within highly structured clock-time systems characterized by seasonal cycles, collection deadlines, and short performance rhythms (Evans and Vaccari, 2020), while simultaneously facing increasing pressure to engage with long-horizon sustainability commitments related to climate targets, supply chain due diligence, and emerging EU regulations. The Nordic context further strengthened the design because sustainability is comparatively integrated and professionalized within Nordic fashion organizations due to strong consumer and regulatory pressure (Pedersen and Gwozdz, 2014), making it likely that participants reflected on sustainability decisions they had repeatedly evaluated rather than peripheral or symbolic issues.

3.4 Sample Selection

The sample consisted of eleven decision-makers across sustainability, commercial, operational, and leadership roles within Nordic fashion organizations. Recruitment occurred through LinkedIn, targeting individuals directly involved in decisions of the kind central to the research question, with referrals expanding the sample where initial prospects declined. Data collection continued until additional interviews provided theoretical replication across reasoning patterns, consistent with theory-building sampling logic (Eisenhardt, 1989; Bell, Bryman and Harley, 2019).

The sample deliberately included variation across roles, organizational size, and business models. Sustainability roles are typically structured around long-term targets and multi-year commitments, while commercial and operational roles tend to operate within shorter performance cycles. Including both made it possible to examine whether temporal reasoning shifted primarily because of the decision itself or because individuals were embedded within different organizational structures. Larger organizations typically rely on more formalized planning systems while smaller or founder-led organizations depend on less institutionalized processes (Bluedorn, 2002; Reinecke and Ansari, 2015; Orlikowski and Yates, 2002; Evans and Vaccari, 2020), and variation along this

dimension supported the analysis of how organizational scaffolding shapes individual temporal reasoning. Participant and organization details are provided in Appendix A.

3.5 Data Collection and Analysis

Data was collected through semi-structured interviews (Appendix B) conducted during spring 2026. The eleven interviews ranged from 25 to 67 minutes, with an average duration of 48 minutes, with variation reflecting participant availability and engagement. All interviews were recorded, manually transcribed, and verified against the original recording to support analytical familiarity throughout coding (Eisenhardt, 1989). Consistent with Eisenhardt's iterative approach, early interviews informed later probing, allowing the study to refine its focus on what appeared to activate shifts in temporal reasoning as data collection progressed. Within-case profiles and coding structures are provided in Appendices D and E. The coding structures also appear in sections 4.2 (Table 1) and 4.4 (Table 2).

The analysis followed Eisenhardt's (1989) two-stage process of within-case analysis followed by cross-case comparison. Both researchers read each transcript in full (Appendix C), with coding remaining descriptive at this stage to avoid prematurely imposing theoretical categories (Grodal, Anteby and Holm, 2021). Descriptive codes were subsequently refined through Emirbayer and Mische's (1998) chordal triad. Iterational reasoning was coded where participants reasoned through established routines or past experience; practical-evaluative reasoning where immediate feasibility or operational constraints dominate; and projective reasoning where imagined future consequences actively shaped the evaluation, rather than where the future was merely referenced. Shift direction was then identified by comparing the dominant temporal logic across the conventional and sustainability decision sections within each case.

3.6 Research Quality

Research quality was evaluated in relation to the study's ability to capture how individuals cognitively understood the temporality of sustainability decisions. Construct validity was central because temporal reasoning is not always directly accessible through self-report (Nisbett and Wilson, 1977; Das, 1987). To avoid capturing professional self-presentation rather than decision-making logic, the study inferred temporal reasoning from how participants justified concrete decisions in their own

words rather than from direct self-assessment (Park et al., 2017). Explicit temporal terminology was avoided in the interview to reduce priming and socially desirable responses, particularly given the normative expectations surrounding sustainability and long-term thinking (Bell, Bryman and Harley, 2019).

Internal validity was strengthened through iterative interviewing, where emerging patterns informed later probing (Eisenhardt, 1989). Both researchers independently reviewed and coded each transcript before discussion, surfacing alternative interpretations and reducing the risk of prematurely analytically converging on a shared lens (Gibbert, Ruigrok and Wicki, 2008; Grodal, Anteby and Holm, 2021). Coding disagreements were resolved by returning to full transcript passages and identifying which temporal logic ultimately guided the decision.

4. Empirical Findings

4.1 Empirical Context

The sample is weighted toward sustainability-facing, commercial, operational and leadership roles across Nordic fashion organisations with varying temporal structures (Pedersen and Gwozdz, 2014). Organizations ranged from founder-led firms with limited formal planning systems (I8), to large multinationals operating through institutionalised sustainability roadmaps tied to 2030 and 2040 targets (I1; I2; I3; I9). Participants therefore differed in role responsibilities, organisational rhythms and accountability structures influencing decision-making. The decisions discussed reflected this variation, ranging from long-horizon initiatives such as scaling regenerative cotton, monomaterial design strategies, and supplier co-investments (I2; I10; I11), to more immediate operational decisions such as supplier selection, local sourcing, and infrastructure investments (I1; I5; I8). In several cases, conventional decisions involved more projective-evaluative reasoning along time horizons than the paired sustainability decision (I1; I5), and several sustainability decisions resolved into reasoning focused on present feasibility and operational constraints (practical-evaluative reasoning). It is the structural variation across these decisions, rather than the domain label, that the analysis turns on.

4.2 Results and Cross-Case Patterns Analysis

Three main patterns emerged. First, temporal reasoning does shift across decision context, but not in a consistent way. Some individuals reason more projectively in sustainability decisions, some showed no meaningful differences across decision contexts, and others reasoned more projectively in conventional business decisions. This indicates that the sustainability domain alone does not reliably determine how individuals reason about time. Second, shifts (positive, reverse, and null) were more consistently associated with the structural characteristics of the decision understood through Bansal and DesJardine's (2014) identification of intertemporal elements such as payoff distance, consequence chain length, uncertainty, while the patterns also revealed reversibility of the decision and whether progress could be evaluated within the organisation's normal reporting and performance cycles. Third, individuals appeared to understand and sustain the temporality of sustainability decisions through the organisational structures they repeatedly worked within. Planning systems, integrated sustainability strategies, and ownership structure shaped whether distant future consequences felt cognitively manageable and relevant in everyday decision-making. The organisational context therefore either supported or created friction in individuals' ability to sustain projective reasoning.

4.2.1 Temporal Orientation is Not Reflected On

Interestingly, across the shifts described above, a further pattern emerged. Every participant was unfamiliar with reflecting on how they perceive and reason about time, despite doing so competently and consistently within concrete decisions. Both temporal orientation, the underlying tendency to relate to past, present, or future, and temporal reasoning, the enacted process through which that orientation becomes visible in evaluating a specific decision, appeared to operate as tacit cognitive dimensions of decision-making. The consequence is that even highly experienced decision-makers may struggle to recognize how time is shaping their reasoning, even as they enact that reasoning.

"I have a lot of these interviews, but it's normally never with the angle of time and the reflections of times." (I9)

"I haven't really thought about the work in terms of time that much before. So yeah, thanks for that perspective." (I3)

“Its a new way for me to think in this time perspective. I think it's a really interesting take because I think with regenerative or looking at climate at large. [...] I think it's interesting in the sustainability realm, do we dare to think long term? And also do we dare to invest now in something that we might not see coming back in 10 or 15 years time?” (I2)

The implications of this for empirical inquiry into temporal reasoning, as well as for future research, are returned to in the discussion.

Table 1. Individual Temporal Orientation

	Role	Personal horizon	Professional horizon	Personal element	Professional element
I1	Sustainability Manager	< 1 yr	3 yr + quarterly	Practical-evaluative	Iterational + projective
I2	Sustainability Specialist	Max 1 yr	5 yr	Practical-evaluative	Projective
I3	Global Product Director	~6 months	Fiscal yr + 3 yr plan	Practical-evaluative	Iterational + projective
I4	Chief Sustainability Officer	~6 months	2 yr + project horizons	Practical-evaluative	Projective
I5	Managing Director	Compressed	Fiscal yr + franchise 3 yr	Practical-evaluative	Iterational + projective
I6	Sustainability Specialist	Seasonal / present	Long-term visionary	Practical-evaluative	Projective
I7	Head of Category	~1 yr	Step-by-step / long-term aware	Practical-evaluative	Iterational
I8	Founder	Day-by-day	Max 6 months	Practical-evaluative	Practical-evaluative
I9	Global Sustainability Manager	80% short-term	Decade-level	Practical-evaluative + Projective	Projective
I10	CEO	48 hr	Forced long-term (2 yr+)	Practical-evaluative	Projective + Iterational
I11	Head of Global Commerce	Structured / planned (1 yr)	Long-term partnerships only	Practical-evaluative + Projective	Projective

Note. Dominant element coded using Emirbayer and Mische (1998) chordal triad: *iterational* = past experience and routines; *projective* = imagined future states; *practical-evaluative* = present constraints and trade-offs.

4.3 Orientation Does Shift

In ten of eleven cases, an extension of orientation from personal to professional contexts is visible, and the same individual does not reason about time consistently across decision types.

First, the baseline comparison between individuals personal relationship to time and reasoning about time, shows that orientation extends projectively when moving from personal to professional context (see Table 1). Participants explicitly trace this extended orientation to the professional role demands.

“Privately I'm very impatient. I would prefer to stay within a maximum of a year. But when it comes to work, in my role, it's much more ahead thinking, at least a five year time horizon.” (I2)

Professional temporal orientation extends in nearly all cases, particularly through career socialization and the organization's temporal scaffolding. Participants describe orienting themselves more projectively through quarterly reporting cycles, annual planning horizons, and multi-year strategic targets. This extension is most pronounced in sustainability-focused roles, where decision-makers routinely engage with long-horizon commitments such as 2030 regulatory deadlines and multi-year supplier development. In these cases, a more intense projective orientation becomes dominant.

"For sustainability we have long time frames. The vision and the targets we work towards is the majority of the time far away, like 2030, 2040. We work many years ahead in sustainability because we want to see and drive change, and that doesn't happen overnight." (I9)

A similar, though less pronounced, pattern is evident in commercial and operational roles where planning structures extend beyond immediate cycles. Participants in these roles describe orienting themselves in time through temporal structures such as fiscal-year frameworks combined with longer-term planning pipelines, such as multi-year product development or expansion strategies.

"We have a strategic deck that has a short-term plan, which is one to two years, and then we have a long-term plan, which is three to five years [...]." (I5)

The exception is I8, where both personal and professional temporal orientation remain practical-evaluative. Unlike all other cases, no formal organisational scaffolding is present (see quote (I8) in Table 2). Furthermore, within the professional decision comparison it was evident that

participants were not using one relatively consistent way of thinking about time, rather drawing on several orientations.

“I would say generally when it comes to sustainability or whether it's any business [decision], you always have to have a mixture of short, mid and long term. You are juggling all three all the time, depending on the topic.” (I3)

Comparison of the sustainability and conventional decisions showed that temporal reasoning shifted within individuals, but not uniformly toward the sustainability domain (See Table 1). Four cases showed more projective reasoning in the sustainability decision, four showed no substantial difference between the two decisions, and three showed more projective reasoning in the conventional business decision. The variation was visible in how participants framed the decision problem itself. Some decisions were evaluated primarily through immediate operational feasibility, short-term performance pressures, and present constraints.

“Yes, both. I mean, they are two completely different projects. One is much more operational and connected to short-term revenues and store developments, while the other one is more of a long-term sustainability learning project. I would say that they are like projects of two different characters here” (I3)

While others were evaluated through longer consequence chains, future dependencies, and outcomes extending beyond current planning cycles. These patterns appeared across both sustainability and conventional decisions rather than aligning consistently with the decision domain itself.

“[If for example a climate change impact would happen in parts of India] if we look at the medium long time, like five years ahead or 10 years ahead, then that will actually most likely be the case... If we want to source in 2035, then we need to really build that sort of business resilience already now.” (I2)

The findings therefore suggest that individuals do not perceive the temporality of sustainability or conventional decisions as an inherent property of the domain itself. Instead, temporal reasoning appears to vary more consistently with the structural features of the decision and the organisational context they repeatedly operate in (Emirbayer and Mische, 1998; Kaplan and Orlikowski, 2013; Orlikowski and Yates, 2002).

4.4 Temporal Reasoning Shifts Across Decision, but by Structure not Domain

The cross-case analysis shows that changes in temporal reasoning are explained more consistently by the structural features of the decision than by whether the decision belongs to a “sustainability” or “conventional” domain. As shown in Table 2, similar forms of reasoning emerged across decisions with similar temporal structures regardless of domain. Sustainability decisions were not inherently more projective, and conventional decisions were not inherently practical-evaluative.

Table 2. Temporal Reasoning Shift Across Decision Domains

	Role	Conventional decision (dominant element + horizon)	Sustainability decision (dominant element + horizon)	Structural driver (dominant element)
Positive shift - sustainability decision activated longer or more projective reasoning (n = 4)				
I10	CEO	Practical-evaluative Shirt manufacturing trial, 1 yr	Projective + iterative Monomaterial brand strategy, 12 yr back and forward	Consequence chain length (bi-directional) “That was a decision 12 years into the future, but also 12 years back.”
I9	Global Sustainability Manager	Practical-evaluative Quality control pilot, 6–12 months	Projective 2030–2040 sourcing targets, decade-level	External temporal anchor (regulatory + supply chain) “They cannot choose tier 2 suppliers [...] that doesn't lead up to our climate target.”
I4	Chief Sustainability Officer	Practical-evaluative Store opening, opening date + 6 months	Projective Leather transparency project, 2029 funding cycle	External temporal anchor “The funding that they got, I mean, that we are a partner of this project, is to 2029. So that is the official time frame.”
I2	Sustainability Specialist	Practical-evaluative Kitchen renovation, 2–3 weeks	Projective Regenerative cotton scaling, 10+ yr	Consequence chain length “If we want to source in 2035, then we need to really build that sort of business resilience already now.”
Null shift - temporal reasoning stable across domains (n = 4)				
I11	Head of Global Commerce	Projective Pandemic partner support, multi-yr payoff	Projective Solar co-investment with supplier, multi-yr	Organisational scaffolding “If we were on the stock market where you always feel the constant pressure to do short-term wins all the time then maybe my

				personal values would have been somewhat phased out, but here the company allows me to nurture that instead."
I8	Founder	Practical-evaluative Photo studio acquisition, 2–3 yr	Practical-evaluative Shifting to deadstock, immediate	Absence of scaffolding "When you run a small business, you just do what you have to do, and you don't necessarily think too much about the timeline."
I7	Head of Category	Projective Supply chain diversification, 5 yr	Projective Cotton certification BC → GOTS, 5 yr	Scaffolding integration "This master process dictates the timing so much [...] everything is like falling to that thinking."
I3	Global Product Director	Iterational + practical-evaluative Product category launch, 9 months	Iterational + projective Fibre conversion to 2030, tracked every season	Scaffolding integration "Sustainability is there at the very starting point of creating a new collection. It's not an afterthought."
Reverse shift - commercial decision activated longer or more projective reasoning (n = 3)				
I6	Sustainability Specialist	Projective Traceability platform, 3–4 yr / 2030 targets	Practical-evaluative Preferred fibre integration, compressed by uncertainty	Outcome uncertainty "There are so many unknowns in that type of decision. Gambling on that implementation feels too risky."
I5	Managing Director	Projective Staff restructuring, 1–2 yr payback	Practical-evaluative Local store fixture sourcing, immediate	Operational immediacy "Maybe the first year should be loss-making, you take the hit to then start fresh in year 2."
I1	Sustainability Manager	Projective Compliance platform, 2028 deadline	Practical-evaluative Rejecting non-compliant supplier, immediate	External temporal anchor "The platform is something I see we will use for many years ahead. That kind of [supplier] decision could change already next year."

Structural drivers were identified inductively from the cases, drawing on intertemporal trade-off dimensions established in prior work (Bansal and DesJardine, 2014; Slawinski and Bansal, 2015) and extending these with features emerging from the data. Coding of temporal elements uses Emirbayer and Mische (1998).

Across the positive shift cases participants moved to more projective reasoning, which was consistently associated with decisions characterized by long consequence chains, distant payoffs,

regulatory anchoring, and future dependencies extending beyond current operational cycles. In these cases, participants cognitively projected forward and evaluated present decisions through imagined future conditions rather than immediate performance outcomes. In I2, regenerative cotton scaling activated projective reasoning because the decision was tied to future fibre resilience and climate risk outcomes expected to emerge, if ever, over several years, prompting a current investment. Whereas for I4, the leather transparency initiative was decided to pursue in the present based on reasoning through future regulatory developments and long-term industry needs, while the paired conventional store opening decision remained tied to immediate operational timelines. Similarly, I9's sustainability decision extended toward 2030-2040 sourcing targets and long-term supply chain transformations, whereas the commercial pilot remained bound by short-term KPI logic. Across these cases, projective reasoning emerged not because the decisions had to do with the subject of sustainability but rather because their structure forces the individuals to engage with distant future consequences to make decisions in their present.

“We do have very long lasting products with no time boundaries as such. It's not going out of fashion, I don't think that time [urgency] is that crucial, it's more the longevity of the relationship because otherwise we cannot continue with the [future] improvements.” (I4)

Practical-evaluative reasoning dominated when decisions were operationally immediate, reversible or weakly connected to long-term consequences. In I1, the sustainability decision concerning a supplier rejection was evaluated through immediate feasibility and resource constraints, while the paired commercial platform decision activated projective reasoning because it was linked to long-term compliance. In I5, the sustainability decision solved a present logistical issue, whereas the commercial restructuring decision involved longer payoff horizons and uncertainty. In I6, uncertainty without a visible long-term trajectory compressed the individual's reasoning into the practical-evaluative and iterational orientation rather than extending it to projectively reason about the future (see quote (I6) in Table 2).

The null-shift cases further reinforce the structural feature argument. In I3, I7 and I11 their decision pairs had similar intertemporal features, which further show that temporal reasoning was influenced less by whether a decision was understood as sustainability related and more by how the individuals cognitively reasoned about the intertemporal structure of the decision itself.

“I would say it's very similar. It's obviously different topics, but it's very similar.” (I3)

These cases suggest that individuals evaluated decisions through the intertemporal demands the decision structure made salient, which shaped whether the individual projected reasoning into the future to make present decisions or remained focused on immediate feasibility and operational constraints. While at the same time, the cases indicate that these structural features were not understood and reasoned about in isolation. Individuals appeared better able to sustain projective reasoning when the organisations planning systems already supported the long-horizon evaluation the decision features required

4.5 Reasoning about Decisions through Organizational Structures

Third, the decision appears to be understood and reasoned through the organisational structures the individuals repeatedly worked in. For long horizon decisions, an individual's cognitive capacity to sustain a dominant projective reasoning depended on whether their role had trained that capacity through role socialization. While the structural features of a decision created temporal demands, the individuals cognitively interpret the temporality of the decision through organizational scaffolding such as their: planning systems, targets and routines. With Interview 8 being a clear case of what happens when there is a lack of this mechanism, the lack of such structures led to constantly remaining in practical-evaluative reasoning.

Several participants explicitly described learning to reason differently about time through sustained exposure to sustainability work. In I1, the individual directly rejected the idea of being a naturally long term thinker, instead explaining that the ability to maintain projective reasoning when making present decisions over long horizons was aided through organisational structure. Three year, one year and quarterly roadmaps were repeatedly used to break distant sustainability targets into manageable decision sequences. And even noted that this is a process the participant observes others in the organization have to learn.

“Unfortunately, I'm not a person thinking long-term, neither in my private life nor in business. [...] I work with a three-year timeline, a one-year timeline, and quarterly timelines, or quarterly activities.

This approach has been extremely helpful. When I started my current role six years ago, this is how I

structured my work from the beginning. [...] Of course, my manager and my manager's manager, they need to understand this [sustainability logic], and after some time they usually do.” (I1)

Similarly, I2 described how working with regenerative agriculture required learning to simultaneously operate across quarterly reporting cycles and multi-year outcome horizons where measurable results may not appear for four or five years, if ever. In both cases, organisational scaffolding allowed individuals to cognitively sustain engagement with decisions whose outcomes extended far beyond the timing of normal business evaluation cycles. The results further provide patterns suggesting that organisational structures influence not only how far individuals think into the future, but also how they reason about time for decisions in the present. However, within these larger organizations (I1, I2) a tension emerged between what their role demanded when reasoning projectively about decisions, and the practical-evaluative reporting nature of their organisation. This friction had a direct cognitive consequence: participants described being pulled back toward practical evaluative reasoning not because the decision structure demanded it, but because they also had to be able to report on these decisions and measure them incongruently:

“When we have sales meetings, my work doesn't really fit in at all. And that's where it becomes a struggle. Also in terms of how things are followed up, like quarterly meetings, many teams can show clear results every quarter and that's not something I can really come with in the same way. It's a completely different way of working.” (I1)

This repeatedly shaped how decisions were prioritized and justified internally. The ability to projectively reason through longer time horizons therefore may not emerge independently from organisational context, but appears to be continuously structured through existing planning systems and performance reporting rhythms.

“We have these quarters to consider, because that's how we report the financial year. And the way we work in our roles is adapted to that. So that can be a bit tough when you work with these long cycles and you set up strategies and collaborations on a five year horizon and then you need to really boil that down and chop the elephant up to quarters” (I2)

The counter-case, I8, reinforces this pattern further. The founder operated without formal planning systems and organisational scaffolding that often help individuals in larger organisations sustain

projective-evaluative reasoning when making long-term decisions. In this case, neither decision extended temporal reasoning and there was no clear shift between decision domains.

“If you are an employee in a larger corporation there's way more mechanism in place for your work to go smoothly. You have fewer surprises and problems that can arise because the structure as a whole is more solid [...] It's way easier for someone that doesn't encounter a lot of problems to plan long-term, to see that something two years down the line may or may not happen.” (I8)

The findings suggest that organisational scaffolding shaped individuals ability to sustain temporal orientation across decisions. Planning systems, reporting routines and strategic roadmaps influenced whether distant consequences became easier to work into present decision-making. Where long-horizon decision features aligned with organisational structures, individuals appeared better able to sustain projective reasoning. Conversely, shorter reporting systems often created friction by pulling reasoning back towards immediate operational evaluation.

5. Theoretical Discussion

The three cross-case patterns show that long-term reasoning does not emerge simply because a decision concerns sustainability. Instead, individuals reason more long-term when they understand a decision as carrying important future consequences, long consequence chains, or strategic effects that extend beyond immediate operational demands. This challenges the implicit assumption that sustainability itself activates projective reasoning. Rather, shifts in temporal reasoning appear tied to how future consequences are understood within the decision being evaluated.

5.1 The Same Individual Reasons About Time Differently Across Decisions

This section shows how temporal reasoning shifts across decision types and what influences that shift. Prior theory implied that sustainability decisions would consistently bring about more projective reasoning than conventional business decisions (Trope and Liberman, 2010; Bansal and DesJardine, 2014; Slawinski and Bansal, 2015). This study found that reasoning shifts, but not by domain. The within-person comparison challenges the assumption that sustainability decisions inherently activate longer-horizon reasoning. Once the same individual is observed across multiple

decisions, the apparent domain effect becomes far less consistent, suggesting that previous findings may partly reflect research designs that observe only a single decision per person.

Prior research has treated temporal orientation as a relatively stable individual characteristic (Das, 1987), measured once per individual and linked to a particular decision outcome (Nadkarni and Chen, 2014; Shipp and Aeon, 2019). Combined with the observation that sustainability decisions involve intertemporal tensions (trade-offs between near-term costs and long term payoffs) and longer payoff horizons (payoffs that arrive further in the future) than many conventional business decisions (Bansal and DesJardine, 2014; Slawinski and Bansal, 2015), this led to an implicit prediction: sustainability decisions evaluated projectively, conventional decisions practically-evaluatively. If this study had followed a single-decision design, the data would appear to support that prediction. Seven of eleven participants reasoned projectively about their sustainability decision. Yet five of the same individuals also reasoned projectively about their conventional decision, and in three cases the conventional decision activated more projective reasoning than the paired sustainability decision. What appears as a stable future orientation in a single decision becomes far less stable when the same individual is observed across multiple decisions. Holding the individual constant revealed variation that a single-decision design cannot capture.

The reverse-shift cases provide the sharpest disconfirmation. If the sustainability domain reliably activated projective reasoning, the reverse shift simply would not occur. I1's compliance platform activated projective reasoning while the paired sustainability supplier rejection remained practically-evaluative. I6's commercial traceability decision extended further into the future than the paired sustainability fiber integration decision, which collapsed under uncertainty. I5's commercial restructuring decision extended one to two years out under an uncertain payback, while the paired sustainability sourcing decision resolved an immediate logistical problem. Across the cases, shifts in reasoning appeared more closely associated with structural features of the decision than with the sustainability domain itself.

This extends Das and Teng's (2001) argument that decision context modifies temporal orientation, and is consistent with Bansal and DesJardine's (2014) identification of payoff distance, uncertainty, and consequence chain length as defining structural features of sustainability decisions. The methodological implication is suggested to be: studies using sustainability decisions as a proxy for

long-term thinking are likely capturing structural effects, consequence distance, complexity, irreversibility, rather than a domain effect. Because these structural features co-occur with sustainability decisions in most prior study designs (Nadkarni and Barr, 2008; Bansal and DesJardine, 2014), they have been empirically inseparable from the domain label itself. Holding the individual constant makes this distinction visible by revealing structural variation within the same decision-maker across different decisions.

A plausible explanation for why domain does not travel with projective reasoning lies in how decision-makers cognitively represent decisions in the first place. The findings suggest that individuals do not encode 'sustainability' as a distinct cognitive category that automatically switches on long-horizon thinking. Instead, they appear to respond to whatever intertemporal structure a given decision happens to carry, how far its consequences reach, how reversible it is, and how concretely its future outcomes can be imagined from the present. This is consistent with construal-level theory, which holds that psychological distance, not category membership, determines how abstractly or concretely an outcome is represented (Trope and Liberman, 2010). Sustainability decisions are a frequent carrier of long intertemporal structures, which is likely why prior research found the association, but the structure is doing the cognitive work, not the label.

5.2 Decision Structure Shapes Future-Oriented Reasoning More Than Decision Domain

Shifts in projective reasoning were associated less with the sustainability framing of a decision and more with its intertemporal structure. Because participants chose their own decision pairs, domain and structure varied together rather than independently, so this account is offered as the more parsimonious reading of the within-person variation rather than as an isolated structural effect. What the comparison does establish is narrower but still consequential: once the individual is held constant, the sustainability label does not travel with projective reasoning, whereas intertemporal structure consistently does. In particular, consequence-chain length, payoff distance, outcome uncertainty, and reversibility appear to shape how far decision-makers projected into the future. Each of these features pulls the decision-maker's attention forward in different ways (Trope and Liberman, 2010). The findings suggest that participants reasoned more projectively when decisions made future consequences more evaluable and difficult to ignore. Decisions involving long

consequence chains, distant payoffs, irreversible outcomes, or concrete future targets appeared to direct attention further into the future with concrete reference points, than decisions focused primarily on immediate operational concerns. When they were absent, participants reasoned practically-evaluatively even when the decision carried a sustainability label, as the reverse-shift cases (I1, I5, I6) showed.

These findings also complicate how temporal reasoning is operationalized in prior research. Studies that classify decisions by domain, sustainability versus conventional, and then infer temporal orientation from how participants reason about them risk attributing structural effects to domain effects, missing the fact that the same individual may reason differently about two sustainability decisions if those decisions differ structurally.

The structural features of the decision also interact. Payoff distance alone does not reliably produce projective reasoning if the decision is perceived as highly reversible. Reversibility appears to reduce the cognitive pressure to reason across the full consequence chain such as I1 when rejecting a supplier. Similarly, external temporal anchors such as the 2030 regulatory deadline function as scaffolding for projective reasoning by giving distant consequences a concrete reference point that makes long-horizon thinking actionable within the current decision. Without such anchors, uncertainty about distant outcomes tends to pull reasoning back toward practical-evaluative modes focused on closer consequences. Intertemporal decision structure is suggested as a more precise explanatory variable for temporal reasoning shifts than the domain category.

Why should structure do this work rather than domain? Construal-level theory offers the mechanism. How concretely a decision-maker constructs an outcome depends on how psychologically distant it feels, and that distance is set by the decision's intertemporal structure: a long consequence chain, a distant payoff, an irreversible commitment, or a concrete regulatory anchor each pushes the relevant outcome away from the present and forces the decision-maker to imagine it (Trope and Liberman, 2010). The sustainability label carries no such distance on its own. Decision-makers therefore do not appear to encode 'sustainability' as a separate cognitive category that switches on long-horizon reasoning; they respond to whatever intertemporal structure a given decision happens to carry. This converges with judgment and decision-making research, which likewise treats intertemporal preference as sensitive to how outcomes are represented rather than

fixed across individuals (Zauberman et al., 2009; Malkoc and Zauberman, 2019), and extends that view into the strategic decisions of senior managers. The contribution is therefore not that sustainability fails to matter, but that what matters is the intertemporal structure a decision makes salient, of which sustainability decisions are a frequent but not exclusive carrier.

5.3 Organizations Build and Sustain Long-Term Reasoning

Organizations do not simply manage temporal pressures collectively (Orlikowski and Yates, 2002; Reinecke and Ansari, 2015), they shape how individuals learn to reason about time. Within managerial cognition research, individual-level studies have often treated temporal orientation as a relatively stable characteristic that differs across people (Das, 1987; Nadkarni and Chen, 2014; Shipp, Edwards and Lambert, 2009). While adjacent literature in judgement, decision-making and consumer behaviour shows that temporal preferences can vary across situations depending on how choices are framed and how future consequences are represented during evaluation (Soman et al., 2005; Malkoc and Zauberman, 2019), organizational temporality research focuses more on how organizations structure and coordinate competing temporal demands (Orlikowski and Yates, 2002; Kaplan and Orlikowski, 2013; Reinecke and Ansari, 2015). The findings of this study suggest that temporal reasoning emerges through the interaction between the two. Rather than reflecting fixed “long-term” or “short-term” tendencies (Das, 1987; Nadkarni and Chen, 2014), individuals' temporal reasoning appears shaped and sustained through repeated exposure to organizational structures, planning systems and evaluative routines.

The cases revealed three different ways this occurred. The first was repeated exposure through organizational roles. I1 explicitly rejected being a naturally long-term thinker and instead described how years of working with roadmaps and future-oriented planning gradually extended their planning horizon aligning with Shipp, Edwards and Lambert's (2009) argument that where we focus in time is shaped through professional experience. Over time, thinking several years ahead became part of how the role was performed. Importantly, I1 described the same process occurring for colleagues entering similar positions, suggesting that the shift was produced by the role structure rather than by personality differences between individuals.

The second mechanism was milestone decomposition. (I2) described breaking ten-year sustainability targets into yearly, quarterly and operational milestones. This made distant outcomes easier to work with in everyday decision-making. Rather than requiring individuals to continuously think ten years ahead, the organization translated long-term goals into shorter planning cycles that fit existing routines and evaluation systems.

The third mechanism was accountability pressure. (I9) explained that sourcing decisions were evaluated against 2030 and 2040 organizational targets. Here, future-oriented reasoning was sustained because individuals were held accountable to long-horizon outcomes. The organization made the future relevant to present performance evaluation. (I8) provides the clearest contrast. Without repeated long-horizon exposure, milestone systems, or accountability tied to distant outcomes, neither decision extended meaningfully beyond immediate operational concerns regardless of the decision's structural features. This suggests that decision structure alone does not sustain projective reasoning. Structural features may create the need to think long-term, but organizational scaffolding determines whether individuals can maintain that reasoning under the short-cycle pressures of everyday organizational life (Bansal and DesJardine, 2014; Slawinski and Bansal, 2015).

Temporal reasoning at the decision level depends both on what the decision structurally demands and on whether the organization provides the routines, milestones and accountability systems needed to sustain long-horizon thinking in practice.

5.4 People Do Not Naturally Reflect On Their Time Perspective When Making Decisions

Across all eleven cases, participants reasoned about time without explicitly recognizing that they were doing so. When asked whether their relationship with time shaped their decisions, most participants asked for clarification or stated that they had never reflected on it. Yet their reasoning consistently revealed temporal assumptions through how they weighed uncertainty, evaluated consequences, and projected outcomes into the future. Temporal reasoning therefore appeared less as a conscious logic and more as an underlying cognitive background shaping how decisions were interpreted (Das, 1987; Ancona et al., 2001; Orlikowski and Yates, 2002). Participants could explain what they decided and why, but struggled to recognize how their perception of time had structured the decision itself. This aligns with Nisbett and Wilson's (1977) argument that individuals can explain

decision outcomes more easily than the cognitive processes that produced them. This makes organizational structures particularly important. The findings suggest that milestones, routines, reporting structures, and accountability systems helped make distant consequences cognitively manageable and kept future outcomes relevant to present decisions. Organizational structures therefore did not simply coordinate time collectively, they shaped how individuals learned to engage with future consequences in everyday decision-making (Orlikowski and Yates, 2002; Ancona et al., 2001).

5.5 Practical Implications

The findings of this study suggest implications for how organisations design and integrate sustainability work. These implications emerge from eleven cases in the Nordic fashion industry and should therefore not be treated as universally generalisable prescriptions.

5.5.1 Design Decision Structures That Make Future Consequences Visible

Managers should not assume that labeling a decision as “sustainability-related” will automatically make individuals think more long term. The findings instead suggest that temporal reasoning depends on how the decision itself is structured and understood cognitively by the decision-maker. Individuals reasoned more projectively when the decision made future consequences visible, concrete, and connected to identifiable future conditions rather than immediate operational concerns alone.

Across the cases, decisions anchored to clear future consequences, such as regulatory deadlines, long-term supply risks, multi-year targets, or future dependencies, supported projective reasoning more consistently than decisions framed only around immediate feasibility or short-term performance pressures. This suggests that organisations can shape how individuals cognitively understand the temporality of a decision through the way the decision is designed and presented.

One practical implication is therefore that organisations should design decisions so that future consequences become easier to mentally trace from the present action. Managers can support this by explicitly connecting current choices to longer-term organisational outcomes, making consequence

chains more visible, and reducing ambiguity around how present actions shape future conditions (Bansal and DesJardine 2014; Trope and Liberman, 2010). When future consequences remain abstract or disconnected from everyday operational realities, individuals may default back toward practical-evaluative reasoning focused on immediate constraints and short-term feasibility.

The findings further suggest that organisations should not place the cognitive burden on individuals to independently translate distant strategic goals into actionable decision logic. Instead, organisations can structure decisions in ways that already embed long-term consequences into the evaluation process itself. In this way, sustaining long-horizon reasoning becomes less dependent on individual disposition or motivation, and more dependent on whether the decision structure makes future outcomes cognitively visible and strategically relevant at the moment of evaluation (Das and Teng, 2001; Shipp and Aeon, 2019).

5.5.2 Align Organizational Roles and Training With Long-Term Demands

Across ten of the eleven cases, interviewees described how repeated exposure to organisational structures guided their ability to think about distant consequences. An implication of this is therefore that organisations should not only consider hiring for individuals displaying long-horizon reasoning, but consider how the organization can also actively develop that capability through organisational design (Orlikowski and Yates, 2002; Reinecke and Ansari, 2015). Firms that want employees to think more long term should therefore focus not only on recruitment, or leadership messaging, but also on onboarding and whether everyday temporal structures repeatedly expose individuals to reasoning about future consequences to guide their daily work.

The findings also suggest that different organisational roles shape how individuals understand time, priorities, and decision consequences. Commercial, operational, sourcing, and sustainability functions often work under different planning cycles, targets, and performance measures. Over time, this can create different default ways of evaluating decisions across departments (Reinecke and Ansari, 2015; Orlikowski and Yates, 2002). Organisations may benefit from increasing cross-functional exposure through awareness of other roles demands and how that affects people's understanding of the temporality of sustainability or other business decisions, shared planning

meetings, or joint strategic discussions that help employees understand how different functions approach long- and short-term demands.

This may also reduce conflict caused not by different goals, but by different ways of describing the same goal. For example, strategy departments may discuss “long-term business resilience,” while sustainability teams discuss improving agricultural practices or securing future material access for the planet and the organization as seen in I2. Although the language differs, both may ultimately focus on protecting the organisation’s future viability and be reasoning in a similar projective-evaluative orientation. Creating a more transparent organisational language around future risks and long-term dependencies may therefore help departments align more easily and reduce the cognitive effort required to sustain long-horizon reasoning across functions.

The findings further suggest that employees sustain long-horizon reasoning more easily when organisations connect distant goals to concrete short-term structures. Multi-year sustainability or strategic targets may therefore become more actionable when organisations translate them into shorter planning horizons, measurable milestones, and recurring review processes that connect present decisions to future organisational outcomes (Orlikowski and Yates, 2002; Slawinski and Bansal, 2015). In this way, organisational structures do not simply coordinate work. They also shape which forms of temporal reasoning employees can realistically maintain in everyday decision-making (Ancona et al., 2001; Reinecke and Ansari, 2015).

5.5.3 Embed Sustainability Within Existing Planning Processes

The null-shift cases provided an important practical insight. In these cases, sustainability decisions did not produce a different form of temporal reasoning than commercial decisions, not because long-horizon reasoning was absent, but because sustainability had already been integrated into the same planning cycles, accountability structures, and evaluative frameworks used for other business decisions (Orlikowski and Yates, 2002; Kaplan and Orlikowski, 2013). As a result, participants did not experience sustainability as cognitively separate from normal strategic decision-making. Rather than sustainability itself activating more projective reasoning, participants reasoned more long-term when decision structures made future consequences cognitively representable through consequence

chains, measurable milestones, accountability systems or concrete future targets. This aligns with research on psychological distance and mental construal, suggesting that distant outcomes are initially represented abstractly and becomes easier to evaluate when translated into more concrete structures (Trope and Liberman, 2010). The findings suggest that sustained projective reasoning may depend less on selecting inherently long-term individuals and more on whether organizational structures make future consequences cognitively representable and connectable to present action (Trope and Liberman, 2010; Bansal and DesJardine, 2014; Zaubermaier et al., 2009).

One practical implication is therefore that organisations may support long-horizon sustainability commitments more effectively when sustainability operates within existing planning architectures rather than alongside them as a separate initiative (Reinecke and Ansari, 2015; Slawinski and Bansal, 2015). Embedding sustainability targets into annual business planning, operational review processes, and existing accountability structures may help decision-makers evaluate sustainability decisions through the same long-term logic already used for other strategically important business decisions.

The findings further suggest that organisations may reduce tension between commercial and sustainability priorities when they expose more departments to intertemporal decision-making rather than concentrating sustainability responsibility within isolated functions. When sustainability becomes embedded within broader organisational planning processes, long-horizon reasoning becomes more cognitively continuous with how individuals already evaluate other organisational goals, reducing the need for employees to switch between competing temporal logics (Emirbayer and Mische, 1998; Orlikowski and Yates, 2002).

5.6 Limitations and Future Research

The design choices that made this analysis possible also define the conditions under which its findings should be interpreted. Four limitations identify these boundaries and point toward future research.

First, the sample size comprised eleven decision-makers who were willing and able to engage in the study introducing a certain self-selection bias. The participants also selected their own decision pairs, creating variation in payoff distance, uncertainty, reversibility, and consequence-chain length across cases. The study therefore compared decisions differing simultaneously in both domain and

structural features. While the findings identify structural drivers of temporal reasoning, they cannot determine whether sustainability labels independently activate different reasoning once structural features are held constant. Future research should test this through controlled comparative designs using structurally matched decision pairs with different domain labels.

Second, the interview design deliberately avoided formal temporal terminology to reduce priming effects. As a result, concepts such as “time horizon” and “long-term thinking” were interpreted differently across respondents, limiting direct comparability of vocabulary across cases. This also reinforces one of the study’s broader observations: temporal reasoning often operates as a tacit dimension of decision-making rather than an explicitly articulated one.

Third, the sample was weighted toward individuals with formal sustainability responsibilities within the Nordic fashion industry, where sustainability is unusually institutionalized and integrated into organizational practice. The structural explanation developed here should therefore be examined in contexts where sustainability is less formalized, more contested, or associated with different political, cultural, or organizational meanings. Cross-industry and cross-cultural comparison would be particularly valuable.

Finally, all participants operated within established organizational temporal structures, including seasonal calendars, reporting cycles, and long-term planning systems. What appeared as individual temporal reasoning may therefore partly reflect organizational rhythms absorbed through professional experience. While the within-person design isolates variation across decisions for the same individual, it cannot fully separate individual reasoning from the organizational environments shaping it.

Future research should therefore examine individuals earlier in their careers or longitudinally across role transitions to better isolate how temporal reasoning develops over time. These limitations point toward a broader research agenda examining how decision structures, organizational environments, and professional socialization shape temporal reasoning within individuals across different decision contexts.

6. Conclusion

This study examined whether the same individual reasons about time differently across sustainability and conventional business decisions. The findings suggest that temporal reasoning shifts within individuals, but not consistently by domain. Projective reasoning was more reliably associated with intertemporal decision structures such as distant consequences, long consequence chains, uncertainty, and future dependencies, than with the sustainability label itself (Bansal and DesJardine, 2014; Slawinski and Bansal, 2015). Participants reasoned more projectively when the decision structure made future consequences concrete enough to evaluate in the present, when consequence chains were long, payoffs distant, outcomes irreversible, or regulatory anchors gave distant targets a fixed reference point. The mechanism appears to be cognitive representability: structure determines how psychologically close or distant future outcomes feel, and therefore whether they enter the decision at all (Trope and Liberman, 2010; Zauberman et al., 2009). The sustainability label carries no such distance on its own. Sustaining that reasoning further depends on organizational scaffolding: planning systems, accountability structures, and repeated engagement with distant consequences (Orlikowski and Yates, 2002; Reinecke and Ansari, 2015). Temporal reasoning therefore appears to emerge not as a fixed trait but as a cognitively enacted process shaped by the interaction between decision structure and organizational context (Emirbayer and Mische, 1998). Whether decision-makers look beyond the quarter, then, it may depend less on who they are than on how their decisions and organizations are built.

7. References

- Ancona, DG, Goodman, PS, Lawrence, BS, & Tushman, ML (2001). Time: A new research lens. *Academy of Management Review*, 26 (4), 645-663.
- Bansal, P., & DesJardine, M.R. (2014). Business sustainability: It's about time. *Strategic Organization*, 12 (1), 70-78.
- Barr, PS, Stimpert, JL, & Huff, AS (1992). Cognitive change, strategic action, and organizational renewal. *Strategic Management Journal*, 13 (S1), 15-36.
- Bell, E., Bryman, A., & Harley, B. (2019). *Business research methods* (5th ed.). Oxford University Press.
- Bluedorn, A.C. (2002). *The human organization of time: Temporal realities and experience*. Stanford Business Books.
- Chen, J., & Nadkarni, S. (2017). It's about time! CEOs' temporal dispositions, temporal leadership, and corporate entrepreneurship. *Administrative Science Quarterly*, 62 (1), 31–66.
- Daft, R.L., & Weick, K.E. (1984). Toward a model of organizations as interpretation systems. *Academy of Management Review*, 9 (2), 284-295.
- Das, TK (1987). Strategic planning and individual temporal orientation. *Strategic Management Journal*, 8 (2), 203-209.
- Das, T. K., & Teng, B.-S. (2001). Strategic risk behaviour and its temporalities: between risk propensity and decision context. *Journal of Management Studies*, 38(4), 515–534.
- Dutton, J.E., & Jackson, S.E. (1987). Categorizing strategic issues: Links to organizational action. *Academy of Management Review*, 12 (1), 76-90.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14 (4), 532-550.

- Emirbayer, M., & Mische, A. (1998). What is agency? *American Journal of Sociology*, 103 (4), 962-1023.
- Evans, C., & Vaccari, A. (2020). *Time in fashion: Industrial, antilinear and chronic temporalities*. Bloomsbury Visual Arts.
- Flammer, C., & Bansal, P. (2017). Does a long-term orientation create value? Evidence from a regression discontinuity. *Strategic Management Journal*, 38 (9), 1827-1847.
- Frederick, S., Loewenstein, G., & O'Donoghue, T. (2002). Time Discounting and Time Preference: A Critical Review. *Journal of Economic Literature*, 40(2), 351–401.
- George, J. M., & Jones, G. R. (2000). The Role of Time in Theory and Theory Building. *Journal of Management*, 26(4), 657–684.
- Gephart, R., Topal, C., & Zhang, Z. (2013). *Future-oriented Sensemaking: Temporalities and Institutional Legitimation*.
- Gibbert, M., Ruigrok, W., & Wicki, B. (2008). What passes as a rigorous case study? *Strategic Management Journal*, 29 (13), 1465-1474.
- Grodal, S., Anteby, M., & Holm, AL (2021). Achieving rigor in qualitative analysis: The role of active categorization in theory building. *Academy of Management Review*, 46 (3), 591-612.
- Hahn, T., Preuss, L., Pinkse, J., & Figge, F. (2014). Cognitive frames in corporate sustainability: Managerial sensemaking with paradoxical and business case frames. *Academy of Management Review*, 39 (4), 463-487.
- Hambrick, D.C., & Mason, P.A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9 (2), 193-206.
- Kaplan, S., & Orlikowski, W.J. (2013). Temporal work in strategy making. *Organization Science*, 24 (4), 965–995.
- Kim, A., Bansal, P., & Haugh, H. (2019). No time like the present: How a present time perspective can foster sustainable development. *Academy of Management Journal*, 62 (2), 607-634.

- Kvale, S. (1996). *InterViews: An introduction to qualitative research interviewing*. Sage.
- Laverty, K. J. (1996). Economic "short-termism": The debate, the unresolved issues, and the implications for management practice and research. *Academy of Management Review*, 21 (3), 825-860.
- Lin, Y., Shi, W., Prescott, J. E., & Yang, H. (2019). In the eye of the beholder: Top managers' long-term orientation, industry context, and decision-making processes. *Journal of Management*, 45 (8), 3114-3145.
- Loewenstein, G., & Thaler, R.H. (1989). Anomalies: Intertemporal choice. *Journal of Economic Perspectives*, 3 (4), 181-193.
- Lumpkin, GT, & Brigham, K.H. (2011). Long-term orientation and intertemporal choice in family firms. *Entrepreneurship Theory and Practice*, 35 (6), 1149–1169.
- Malkoc, S. A., & Zauberaman, G. (2019). Psychological analysis of consumer intertemporal decisions. *Consumer Psychology Review*, 2(1), 97–113.
- Nadkarni, S., & Barr, P.S. (2008). Environmental context, managerial cognition, and strategic action: An integrated view. *Strategic Management Journal*, 29 (13), 1395-1427.
- Nadkarni, S., & Chen, J. (2014). Bridging yesterday, today, and tomorrow: CEO temporal focus, environmental dynamism, and rate of new product introduction. *Academy of Management Journal*, 57 (6), 1810-1833.
- Nadkarni, S., Chen, T., & Chen, J. (2016). The clock is ticking! Executive temporal depth, industry velocity, and competitive aggressiveness. *Strategic Management Journal*, 37 (6), 1132-1153.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84(3), 231–259.
- Ocasio, W. (1997). Towards an Attention-Based View of the Firm. *Strategic Management Journal*, 18(18), 187–206. <https://www.jstor.org/stable/3088216>

- Orlikowski, W. J., & Yates, J. (2002). It's about time: Temporal structuring in organizations. *Organization Science*, 13 (6), 684–700.
- Park, G., Schwartz, HA, Sap, M., Kern, ML, Weingarten, E., Eichstaedt, JC, Berger, J., Stillwell, DJ, Kosinski, M., Ungar, LH, & Seligman, MEP (2017). Living in the past, present, and future: Measuring temporal orientation with language. *Journal of Personality*, 85 (2), 270-280.
- Pedersen, E. R. G., & Gwozdz, W. (2014). From Resistance to Opportunity-Seeking: Strategic Responses to Institutional Pressures for Corporate Social Responsibility in the Nordic Fashion Industry. *Journal of Business Ethics*, 119(2), 245–264.
- Podsakoff, PM, MacKenzie, SB, Lee, J.-Y., & Podsakoff, NP (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88 (5), 879-903.
- Reinecke, J., & Ansari, S. (2015). When times collide: Temporal brokerage at the intersection of markets and developments. *Academy of Management Journal*, 58 (2), 618-648.
- Schwenk, C.R. (1988). The cognitive perspective on strategic decision making. *Journal of Management Studies*, 25 (1), 41-55.
- Shipp, A. J., & Aeon, B. (2019). Temporal focus: Thinking about the past, present, and future. *Current Opinion in Psychology*, 26 , 37–43.
- Shipp, A.J., Edwards, J.R., & Lambert, L.S. (2009). Conceptualization and measurement of temporal focus: The subjective experience of the past, present, and future. *Organizational Behavior and Human Decision Processes*, 110 (1), 1–22.
- Slawinski, N., & Bansal, P. (2012). A matter of time: The temporal perspectives of organizational responses to climate change. *Organization Studies*, 33 (11), 1537–1563.
- Slawinski, N., & Bansal, P. (2015). Short on time: Intertemporal tensions in business sustainability. *Organization Science*, 26 (2), 531–549.

- Stubbart, C.I. (1989). Managerial cognition: A missing link in strategic management research. *Journal of Management Studies*, 26 (4), 325-347.
- Soman, D., Ainslie, G., Frederick, S., Li, X., Lynch, J., Moreau, P., Mitchell, A., Read, D., Sawyer, A., Trope, Y., Wertenbroch, K., & Zauberman, G. (2005). The Psychology of Intertemporal Discounting: Why are Distant Events Valued Differently from Proximal Ones? *Marketing Letters*, 16(3), 347–360.
- Tripsas, M., & Gavetti, G. (2000). Capabilities, cognition, and inertia: Evidence from digital imaging. *Strategic Management Journal*, 21 (10-11), 1147-1161.
- Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review*, 117 (2), 440-463.
- Walsh, J. P. (1995). Managerial and organizational cognition: Notes from a trip down memory lane. *Organization Science*, 6 (3), 280–321.
- Wang, T., & Bansal, P. (2012). Social responsibility in new ventures: Profiting from a long-term orientation. *Strategic Management Journal*, 33 (10), 1135-1153.
- Wiebe, E. (2010). Temporal Sensemaking: Managers' use of Time to Frame Organizational Change. *Process, Sensemaking, and organizing* (pp. 213-241). Oxford University Press
- World Commission on Environment and Development. (1987). *Our common future*. Oxford University Press.
- Zauberman, G., Kim, B. K., Malkoc, S. A., & Bettman, J. R. (2009). Discounting Time and Time Discounting: Subjective Time Perception and Intertemporal Preferences. *Journal of Marketing Research*, 46(4), 543–556.
- Zimbardo, P.G., & Boyd, J.N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology*, 77 (6), 1271–1288.

8. Appendix

Appendix A: Sample Overview

Interviewee	Date	Time	Role Category	Years of Experience	Company Identification	Organizational Size
1	2026-03-18	55m 46s	Sustainability Manager, Commercial Development Growth	35 yr	Subcompany A	Large + Global
2	2026-03-20	1h 3m 56s	Sustainability Specialist	19 yr	A	Large + Global
3	2026-03-20	49m 12s	Global Product Director	25 yr	B	Large + Multinational
4	2026-03-20	48m 46s	Chief Sustainability Officer	18 yr	C	Medium + Global
5	2026-03-25	1h 0m 26s	Managing Director	22 yr	B	Large + Multinational
6	2026-03-27	45m 35s	Senior Sustainability Specialist	11 yr	D	Medium + Global
7	2026-03-27	25 m 54s	Head of Category	22 yr	E	Large + Global
8	2026-03-29	48m 17s	Founder	20 yr	F	Small + Multinational
9	2026-03-30	26m 46s	Global Sustainability Manager	17 yr	G	Large + Multinational
10	2026-04-01	1h 7m	CEO	7 yr	H	Medium + Multinational
11	2026-04-10	46m 10s	Head of Global Commerce	16 yr	C	Medium + Global

Years of Experience each interviewee had was on the basis of years working within the fashion industry. Organisational Size was identified through company size based on employees (small, medium, large), and through market reach (national, multinational, global). Small: < 50 employees; Medium: 50-249 employees; Large: ≥ 250 employees. National: 1 market; Multinational: 2-9 markets; Global: ≥ 10 markets.

Appendix B: Interview Guide Template

Section 1A: Background and Decision Context

(Establish role and decision involvement before discussing temporality)

1. Please introduce yourself and your role. How long have you been working in this role/industry?

Section 1B: Personal Relationship with Time

(Surface temporal schemas and temporal depth as stable individual level trait before work context is introduced)

How do you see time? How does the coming 6 months appear in your head?

Do you see it as a timeline, a calendar, or something else?

1. How far ahead do you usually think when making decisions in your personal life? Can you give an example?
2. At what point does the future start feeling uncertain or difficult to plan for?
3. How would you describe yourself? Are you naturally someone who naturally thinks long term or short term, and has that always been the case?

Section 2A: Time in Work Context

(Surface interplay between objective time structure and subjective orientation)

1. How do the planning cycles and rhythms of your organization shape your day-to-day work?
 - a. Do these feel like natural features of how you work? Or do they ever feel like constraints or enabling you?
 - b. When you think about what needs to get done, what time frames feel most real and immediate to you?
2. Have you experienced situations where your way of thinking about time differed from how the organization operates?
 - a. Can you describe one?

We are not interested in the decision outcomes, rather please walk us through how YOU / and your team arrived at that decision.

Section 2B: Non-Sustainability Decision (Baseline)

(Establish temporal reasoning outside sustainability)

1. What was the decision and your role?
2. When you were making this decision, what was the furthest point into the future that felt relevant and real to you?
3. How did you think about the relationship between what needed to happen now and what might happen later?
 - a. Did it feel like a trade off? How do you balance that?
2. Were there people involved who thought about the timeline differently than you, and if so how did you navigate that?
 - a. Did you ever have to explain or justify it?
 - b. How did you explain or justify it?

Section 3: A Real Sustainability Decision

(Observe temporal reasoning in a concrete sustainability initiative)

1. What was the decision and your role?
2. When you were making this decision, what was the furthest point into the future that felt relevant and real to you?
3. How did you think about the relationship between what needed to happen now and what might happen later?
 - a. Did it feel like a trade off? How do you balance that?
4. If you compare this decision to the non-sustainability one - Were there people involved who thought about the timeline differently than you, and if so how did you navigate that? Did you ever have to explain or justify it?

Section 4: Comparing Decisions and Differences in temporal orientation?

(Compare how initiatives are evaluated and capture differences in temporal orientation)

1. When you reflect on these two decisions side by side, how similar or different was your thinking about time and timing in each?
 - a. Were there people involved who thought about the timeline differently than you in these decisions, and if so how did you navigate that?
 - i. Did you ever have to explain or justify it?
2. Was there anything about the sustainability decision that made you think about time differently than you normally would?
3. In your work do you experience that different people involved look differently at time? How does that affect what actually happened?
 - a. How do you balance different timelines?

Closing:

1. "In one sentence, what is sustainability actually trying to achieve?"
2. Is there anything we haven't asked that you feel is important?

Appendix C: Interview Transcripts

 Interview_Transcripts_(1-11).pdf

Appendix D: Within-Case Profiles

 Within_Case_Profiles_(1-11).pdf

Appendix E: Coding Structure Tables

Table 1. Individual Temporal Orientation

	Role	Personal horizon	Professional horizon	Personal element	Professional element
I1	Sustainability Manager	< 1 yr	3 yr + quarterly	Practical-evaluative	Iterational + projective
I2	Sustainability Specialist	Max 1 yr	5 yr	Practical-evaluative	Projective
I3	Global Product Director	~6 months	Fiscal yr + 3 yr plan	Practical-evaluative	Iterational + projective
I4	Chief Sustainability Officer	~6 months	2 yr + project horizons	Practical-evaluative	Projective
I5	Managing Director	Compressed	Fiscal yr + franchise 3 yr	Practical-evaluative	Iterational + projective
I6	Sustainability Specialist	Seasonal / present	Long-term visionary	Practical-evaluative	Projective
I7	Head of Category	~1 yr	Step-by-step / long-term aware	Practical-evaluative	Iterational
I8	Founder	Day-by-day	Max 6 months	Practical-evaluative	Practical-evaluative
I9	Global Sustainability Manager	80% short-term	Decade-level	Practical-evaluative + Projective	Projective
I10	CEO	48 hr	Forced long-term (2 yr+)	Practical-evaluative	Projective + Iterational
I11	Head of Global Commerce	Structured / planned (1 yr)	Long-term partnerships only	Practical-evaluative + Projective	Projective

Note. Dominant element coded using Emirbayer and Mische (1998) chordal triad: iterational = past experience and routines; projective = imagined future states; practical-evaluative = present constraints and trade-offs.

Table 2. Temporal Reasoning Shift Across Decision Domains

	Role	Conventional decision (dominant element + horizon)	Sustainability decision (dominant element + horizon)	Structural driver (dominant element)
Positive shift - sustainability decision activated longer or more projective reasoning (n = 4)				
I10	CEO	Practical-evaluative Shirt manufacturing trial, 1 yr	Projective + iterational Monomaterial brand strategy, 12 yr back and forward	Consequence chain length (bi-directional) "That was a decision 12 years into the future, but also 12 years back."
I9	Global Sustainability Manager	Practical-evaluative Quality control pilot, 6–12 months	Projective 2030–2040 sourcing targets, decade-level	External temporal anchor (regulatory + supply chain) "They cannot choose tier 2 suppliers [...]that doesn't lead up to our climate target."
I4	Chief Sustainability Officer	Practical-evaluative Store opening, opening date + 6 months	Projective Leather transparency project, 2029 funding cycle	External temporal anchor "The funding that they got, I mean, that we are a partner of this project, is to 2029. So that is the official time frame."
I2	Sustainability Specialist	Practical-evaluative Kitchen renovation, 2–3 weeks	Projective Regenerative cotton scaling, 10+ yr	Consequence chain length "If we want to source in 2035, then we need to really build that sort of business resilience already now."
Null shift - temporal reasoning stable across domains (n = 4)				
I11	Head of Global Commerce	Projective Pandemic partner support, multi-yr payoff	Projective Solar co-investment with supplier, multi-yr	Organisational scaffolding "If we were on the stock market where you always feel the constant pressure to do short-term wins all the time then maybe my personal values would have been somewhat phased out, but here the company allows me to nurture that instead."
I8	Founder	Practical-evaluative Photo studio acquisition, 2–3 yr	Practical-evaluative Shifting to deadstock, immediate	Absence of scaffolding "When you run a small business, you just do what you have to do, and you don't necessarily think too much about the timeline."

I7	Head of Category	Projective Supply chain diversification, 5 yr	Projective Cotton certification BC → GOTS, 5 yr	Scaffolding integration "This master process dictates the timing so much [...] everything is like falling to that thinking."
I3	Global Product Director	Iterational + practical-evaluative Product category launch, 9 months	Iterational + projective Fibre conversion to 2030, tracked every season	Scaffolding integration "Sustainability is there at the very starting point of creating a new collection. It's not an afterthought."
Reverse shift - commercial decision activated longer or more projective reasoning (n = 3)				
I6	Sustainability Specialist	Projective Traceability platform, 3–4 yr / 2030 targets	Practical-evaluative Preferred fibre integration, compressed by uncertainty	Outcome uncertainty "There are so many unknowns in that type of decision. Gambling on that implementation feels too risky."
I5	Managing Director	Projective Staff restructuring, 1–2 yr payback	Practical-evaluative Local store fixture sourcing, immediate	Operational immediacy "Maybe the first year should be loss-making, you take the hit to then start fresh in year 2."
I1	Sustainability Manager	Projective Compliance platform, 2028 deadline	Practical-evaluative Rejecting non-compliant supplier, immediate	External temporal anchor "The platform is something I see we will use for many years ahead. That kind of [supplier] decision could change already next year."

Structural drivers were identified inductively from the cases, drawing on intertemporal trade-off dimensions established in prior work (Bansal and DesJardine, 2014; Slawinski and Bansal, 2015) and extending these with features emerging from the data. Coding of temporal elements uses Emirbayer and Mische (1998).

Appendix F: AI Disclosure

AI tools were used selectively throughout the thesis process to support efficiency and clarity.

Consensus was used during the research phase to identify and explore relevant academic sources. Microsoft Teams was used to transcribe interviews, all the transcriptions were later cross-checked against the original recordings to ensure accuracy.

ChatGPT (OpenAI) and Claude (Anthropic) were used to support tools primarily in the later stages of the writing process. The use was limited to rewording, improving clarity, and refining the flow of text. Importantly, all AI-generated suggestions were carefully reviewed, edited, and adapted in order for the content to reflect the authors own reasoning, academic judgement, and understanding of the material. No sensitive data was shared with AI tools, and their use complied with relevant data protection standards.