WHITE PAPER: Moral Reasoning, Ethical Decisions, and Individual Perceptions

Leveraging Moral Reasoning and Locus of Control to Advance Safety Culture Maturity

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Abstract

Safety culture maturity is often evaluated through organizational systems, leadership commitment, and shared norms. However, safety outcomes ultimately depend on the decisions individuals make under conditions of risk, pressure, and uncertainty. Despite well-developed safety management systems, organizations continue to experience serious injuries and high-potential incidents, suggesting that gaps between expectations and behavior are frequently rooted in human decision-making rather than procedural deficiencies. This paper examines two underutilized psychological constructs—the Moral Reasoning Inventory (MRI) and Locus of Control (LOC)—and their relevance to understanding and advancing safety culture maturity. Drawing on moral development theory and safety science literature, the paper demonstrates how moral reasoning and perceived control influence safety compliance, leadership behavior, engagement, and ethical decision-making. Emphasis is placed on practical application for safety professionals, including leadership development, training, incident analysis, employee engagement, and safety culture assessment. Integrating MRI and LOC provides safety practitioners with tools to move beyond surface-level safety climate measures toward deeper, more sustainable safety culture maturity grounded in individual ownership and ethical consistency.

Introduction: Safety Culture as Individual Decision-Making

Safety culture is ultimately expressed through the decisions individuals make when facing risk, pressure, and uncertainty. Even in organizations with mature safety management systems, serious injuries, fatalities, and high-potential near misses continue to occur—not because policies or procedures are absent, but because individuals must interpret ambiguous rules, reconcile competing priorities, and navigate ethical dilemmas in real time. For safety professionals, this persistent gap between formal safety expectations and actual behavior remains one of the most enduring challenges in advancing safety culture maturity.

Safety culture maturity reflects the extent to which individuals consistently act in alignment with safety values, particularly when supervision is limited or production pressure is high (Cooper, 2000; Hudson, 2007). While decades of safety research have emphasized leadership

commitment, organizational systems, and shared norms, comparatively less attention has been given to the psychological processes that shape how individuals reason through safety-critical decisions or whether they believe their actions meaningfully influence outcomes. As a result, safety professionals frequently encounter ethical drift, normalization of deviance, and disengagement that are not fully explained by traditional safety climate measures.

This paper argues that two psychological constructs—the Moral Reasoning Inventory (MRI) and Locus of Control (LOC), a combined process named LoCore Solutions©—offer safety professionals valuable insight into these human dimensions of safety culture. Moral reasoning explains how individuals determine what is right or acceptable when confronted with safety dilemmas, while locus of control explains whether individuals perceive themselves as responsible agents capable of influencing safety outcomes. Together, these constructs help explain why individuals exposed to the same hazards, rules, and leadership signals may behave very differently.

Importantly, this paper is written for safety professionals seeking practical ways to strengthen safety culture within existing workforces and ongoing operations. While MRI and LOC are sometimes discussed in hiring and selection contexts, their greatest value lies in leadership development, training and coaching, incident analysis, employee engagement, and culture improvement initiatives. Integrating moral reasoning and perceived control into safety practice enables organizations to move beyond compliance-driven safety toward cultures characterized by ownership, ethical consistency, and sustained risk awareness.

Moral Reasoning and Safety-Critical Decisions

Moral reasoning refers to how individuals evaluate right and wrong when faced with dilemmas involving competing values. Kohlberg's (1958, 1981) model of moral development—preconventional, conventional, and postconventional reasoning—provides a useful framework for understanding variability in safety behavior across individuals and organizations.

At preconventional levels, individuals tend to comply with safety rules primarily to avoid punishment or negative consequences. Safety behaviors are externally regulated and vulnerable to erosion when supervision is absent. Conventional reasoning reflects adherence driven by organizational norms, peer expectations, or legal obligation. While more stable, this form of reasoning may still fail under conditions of strong production pressure or conflicting organizational signals. Postconventional reasoning emphasizes ethical principles such as protecting human life, fairness, and responsibility, even when doing so requires resisting authority or accepting personal cost.

These distinctions are directly relevant to safety culture maturity. Compliance-based safety programs may achieve short-term improvements but often plateau when individuals rely solely on enforcement rather than internalized values. Mature safety cultures depend on postconventional reasoning, which supports self-regulation, peer intervention, and ethical courage—behaviors consistently associated with strong safety performance (Reason, 1997;

Hudson, 2007). From a safety culture perspective, moral reasoning helps explain why some individuals act safely even when no one is watching, while others do not.

Rest's (1979) four-component model of ethical decision-making—ethical issue recognition, moral judgment, moral intent, and behavior—further illuminates how safety failures occur. Many incidents arise not because individuals lack technical knowledge, but because they fail to recognize a situation as safety-relevant, rationalize unsafe shortcuts, or feel constrained by authority gradients or production demands. These breakdowns are familiar to safety professionals conducting incident investigations and culture assessments and underscore the importance of understanding decision-making processes rather than focusing solely on rule violations.

Theory-Practice Gap—compliance and systems aren't failing because they're poorly designed, but because they don't address why individuals choose to act unsafely.

Dimension	Psychological Approach	Typical Safety Culture Reviews
Primary Unit	Individual moral psychology	Organizational systems
Root Cause Focus	Ethical reasoning and perceived personal control	Procedures, policies, leadership signals
Assessment Method	MRI / Locus of Control; qualitative exploration of moral reasoning	Safety climate surveys and compliance metrics
Culture Definition	Enduring individual beliefs that drive ethical consistency	Shared norms and collective perceptions
Maturity Path	Preconventional → Conventional → Postconventional reasoning	Reactive → Proactive → Generative systems
Intervention Target	How individuals think through safety dilemmas	How work is structured and how safety processes are enacted

The Moral Reasoning Inventory (MRI): Practical Value for Safety Professionals

From a safety culture perspective, the Moral Reasoning Inventory (MRI) provides a practical lens for understanding how individuals—particularly leaders—interpret and act on safety values when faced with competing demands, ambiguity, and pressure.

The MRI (Weber & Federico, 2007) assesses the sophistication of an individual's ethical reasoning by examining how decisions are justified in response to dilemmas. Although often

discussed in hiring contexts, MRI has substantial value for understanding and developing safety culture within existing organizations.

In safety leadership development, MRI-informed approaches help identify how leaders prioritize safety relative to competing goals. Leaders with more advanced moral reasoning are more likely to act consistently with safety values, encourage reporting, and model ethical behavior under pressure (Hannah et al., 2011; Treviño & Brown, 2004). For safety professionals, incorporating ethical dilemma discussions into leadership development provides a structured way to examine how leaders respond to real-world safety conflicts and where coaching may be needed to strengthen ethical consistency.

MRI also supports more effective safety training and education. Traditional training often emphasizes procedural compliance, which may be insufficient in nonroutine or high-risk situations. Scenario-based learning informed by moral reasoning theory develops ethical sensitivity, hazard recognition, and judgment—skills essential when procedures are incomplete or unclear (Narvaez, 2010). Training that emphasizes why safety decisions matter, rather than only what rules require, reinforces individual ownership and supports safety culture maturity.

In incident analysis, understanding moral reasoning allows safety professionals to examine decision-making without defaulting to blame. Exploring why actions made sense to individuals at the time reveals ethical drift, normalization of deviance, and conflicting organizational values. This approach aligns with just culture principles and strengthens organizational learning (Dekker, 2014).

Locus of Control and Safety Engagement

Within safety culture, locus of control shapes whether individuals experience safety as a personal responsibility they can influence or as an outcome determined primarily by external forces.

Locus of Control (Rotter, 1966) describes whether individuals believe outcomes are primarily influenced by their own actions (internal LOC) or by external forces such as management decisions, luck, or fate (external LOC). This perception significantly influences motivation, responsibility-taking, and engagement in safety activities.

Individuals with an internal locus of control are more likely to report hazards, persist in corrective actions, and intervene in unsafe situations (Spector, 1982; Ng et al., 2006). They tend to view safety as something they can actively influence. In contrast, individuals with a predominantly external locus of control may perceive incidents as inevitable or beyond their control, reducing motivation to engage proactively. From a safety culture perspective, LOC shapes whether safety is experienced as shared responsibility or organizational imposition.

Safety culture initiatives often assume that empowerment structures automatically translate into perceived control. However, safety professionals frequently observe disengagement even in well-resourced programs. LOC helps explain this gap by highlighting that perceived control must be

intentionally developed and reinforced rather than assumed. LOC is central to the success of every safety initiative, past, present, and future. But until now was not realized, represented, or knowingly incorporated.

Cross Comparison

| Dimension	Locus of Control	Ethical/Moral Decision Making
Disciplinary origin	Psychology	Moral psychology, ethics
Primary focus	Perceived control	Moral judgment and choice
Value-laden?	No	Yes
Answers the question	"Who/what causes outcomes?"	"What is the right thing to do?"
Stability	Relatively stable trait	Context-sensitive and developmental
Prescriptive?	No	Yes

Key point: LOC addresses *agency*, while ethical decision-making addresses *normative judgment*.

Locus of control and ethical reasoning are conceptually independent because they measure different things: locus of control concerns whether people generally see outcomes as driven by their own actions (internal) or by outside forces like luck, fate, or powerful others (external), while ethical reasoning concerns how people determine what is right or wrong and justify moral decisions. However, they can be functionally interdependent in practice because locus of control often affects how ethical judgments translate into ethical behavior, especially in ambiguous or high-pressure situations. People with a more internal locus of control are generally more likely to feel personally responsible for outcomes, act on their ethical conclusions, and resist unethical pressure from authority or peers, whereas those with a more external locus of control may be more prone to rationalizations such as "I had no choice" or "I was just following orders," which can make moral disengagement easier even if they understand ethical principles.

Locus of Control and Safety Culture Maturity

Early safety culture research emphasized organizational systems and collective norms, often overlooking individual beliefs about control (Reason, 1997; Clarke, 2000). More recent interactionist models suggest safety behavior emerges from the interaction between individual perceptions and organizational context (Neal & Griffin, 2006). LOC is therefore a critical, yet underutilized, variable in safety culture analysis.

LoCore Pyramid
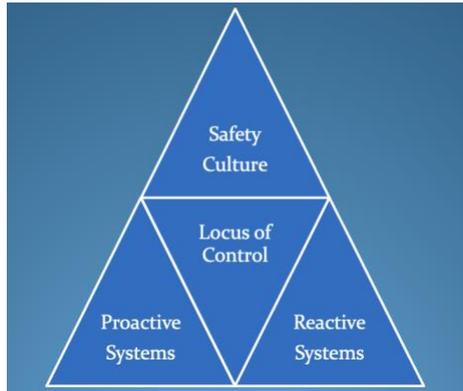
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Understanding locus of control helps safety professionals explain why similar interventions produce different outcomes across workgroups. Where individuals believe their actions matter, empowerment initiatives tend to foster proactive safety behaviors. Where perceived control is low, the same initiatives may result in minimal compliance or disengagement. Safety culture maturity depends not only on providing authority and resources, but on reinforcing the belief that individual actions meaningfully influence safety outcomes.

Integrating Moral Reasoning and Locus of Control in Safety Culture Analysis

Taken together, MRI and LOC explain both what individuals believe is right and whether they believe they can act on those beliefs.

Moral reasoning and locus of control address complementary aspects of safety behavior. Moral reasoning explains how individuals evaluate safety and ethical dilemmas, while locus of control explains whether they believe they have the agency to act on those judgments. Together, these constructs provide safety professionals with a deeper understanding of why safety initiatives succeed in some contexts and fail in others.

Integrating MRI and LOC into safety culture assessment moves practice beyond surface-level safety climate measures toward insight into underlying values, ethical commitments, and perceived responsibility. This integration reinforces the distinction between safety climate, which reflects current perceptions, and safety culture, which reflects enduring beliefs and behavioral patterns (Cooper, 2000; Guldenmund, 2000). Addressing both ethical reasoning and perceived control allows safety professionals to design more targeted, context-specific interventions that support sustained culture improvement.

Existing Strengths	LoCore Contributions	Why This Matters
Standard Safety Culture Reviews • Leadership commitment • Organizational systems & processes • Compliance & accountability structures • Shared norms and values	**Behavioral & Psychological Focus** • Ethical decision-making under pressure • Scenario-based (not just compliance) training • Expanded incident investigation • Moral reasoning and individual interpretation	**Executive Takeaway** **LoCore does not replace standard safety culture reviews - It enhances them** It explains *why people behave differently under the same systems* by addressing: • Perceived control and personal agency • Individual psychology behind safety decisions • The gap between strong systems and real-world behavior

Practitioner's Toolbox: Applying MRI and LOC in Safety Practice

The following applications summarize how safety professionals can incorporate moral reasoning and locus of control into existing safety processes. These tools are intended to complement—not replace—established safety management systems by strengthening individual ownership, ethical consistency, and engagement.

Safety Leadership

Ethical dilemma discussions grounded in real safety conflicts can be used to help leaders examine how they balance safety expectations with production and operational pressures. Facilitated conversations should focus on how leaders justify decisions when priorities compete and whether their actions consistently reflect stated safety values. Coaching leaders through these scenarios reinforces ethical accountability and clarifies the expectation that safety values guide decisions, particularly under pressure or ambiguity.

Training and Development

Scenario-based training exercises that require participants to reason through ambiguous or non-routine safety situations provide an effective way to develop moral sensitivity and judgment. Rather than emphasizing procedural compliance alone, training should highlight the ethical significance of safety decisions and the potential impact on others. This approach reinforces why safety choices matter beyond rule adherence and prepares workers for situations where procedures may be incomplete or unclear.

Incident Investigation

During incident investigations, safety professionals can expand learning by exploring how individuals perceived risk, authority, and personal control at the time of the event. Examining how decisions made sense within the local context helps identify ethical conflict, normalization of deviance, and perceived constraints on action. This perspective supports a just culture approach by focusing on understanding decision-making rather than assigning blame.

Engagement and Culture Improvement

Assessing perceived control across roles and workgroups helps identify where individuals may feel powerless to influence safety outcomes. In areas with low perceived control, improvement efforts should focus on strengthening employee participation in problem-solving, closing feedback loops, and visibly demonstrating how individual actions contribute to meaningful safety improvements. Reinforcing personal agency supports proactive engagement and shared responsibility.

Safety Culture Assessment

Safety climate surveys can be strengthened by incorporating qualitative insight into how individuals reason about safety and responsibility. Interviews, focus groups, or facilitated discussions can reveal whether safety expectations are internalized or viewed as externally imposed. These insights allow safety professionals to design targeted interventions that address underlying beliefs and ethical reasoning rather than focusing solely on observable behaviors.

Conclusion

Safety culture maturity depends not only on systems, procedures, and leadership commitment, but also on the ethical reasoning and perceived agency of the individuals who operate within those systems. The Moral Reasoning Inventory (MRI) and Locus of Control (LOC) offer safety professionals practical, evidence-based tools for understanding why safety behaviors succeed or fail under real-world conditions.

In his 2016 paper, Navigating the Safety Culture Construct: A review of the evidence, Cooper's critique was not that the field should avoid new concepts, but that it should stop adding poorly defined constructs that lack evidence and do not improve safety performance. Our peer-reviewed research directly responds to that critique by demonstrating that LOC and MRI are (1) measurable through validated instruments and (2) empirically linked to outcomes that matter—observable safety behaviors and leading indicators associated with significant risk. Importantly, these measures add predictive value beyond traditional safety-culture assessments to include never-before-captured Population Perception Indicators (PPI).

Within Cooper's reciprocal safety culture model, LOC and MRI align with the psychological component as evidence-based drivers that help explain why people behave differently under similar systems and conditions. The findings indicate these constructs are not merely additional "survey dimensions," but behaviorally relevant mechanisms associated with meaningful variation in action—such as speaking up, intervening, reporting, adhering to requirements when unobserved, and following through on corrective actions—while improving prediction of high-consequence risk indicators. This is the kind of triangulated, performance-linked validation that Cooper argues has too often been missing in safety culture research.

At EHS Professional Resources, our senior consultants have understood for decades what many organizations have been missing in the journey to safety culture maturity: employee moral reasoning and their belief about whether their actions truly matter. Throughout their careers as safety and health leaders, they quietly built and refined safety management systems that intentionally integrated these two "missing constructs"—Moral Reasoning (MRI) and Locus of Control (LOC). The result was not just improved compliance, but measurable cultural maturity consistently reflected in strong, sustained safety performance.

Until recently, these factors were often treated as "soft" or impossible to measure. Now, peer-reviewed research confirms what our consultants have long seen in practice: LOC can be reliably measured and, more importantly, strengthened through deliberate training, communication, and leadership practices—driving meaningful change at both the individual and group level.

By integrating moral reasoning and perceived control into leadership development, training, incident analysis, and workforce engagement, organizations can move beyond compliance-driven safety toward cultures defined by ownership, ethical consistency, and resilience. For top-performing organizations that have plateaued—already strong in systems, metrics, and compliance—our senior practitioners' empirical work points to a missing catalyst that can help break through to true cultural maturity and sustained, top-tier performance.

That approach is the foundation of LoCore Management Solutions ©, developed by EHS Professional Resources SM.

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