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Essay

The Moleka Grid: An Ontological Diagnostic Framework for Systemic Transformation

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Abstract: This article introduces the Moleka Grid, a diagnostic framework designed to facilitate systemic transformation by integrating symptomatic, paradigmatic, and ontological analyses. Building upon existing models such as the Iceberg Model and the Three Horizons Framework, the Moleka Grid addresses the need for deeper diagnostic tools that consider underlying worldviews and assumptions. Through case studies in urban governance and climate policy, the framework's applicability is demonstrated. The article concludes with a discussion on the framework's implications for practice and future research directions.

Keywords: moleka grid; systemic transformation; ontological analysis; paradigmatic analysis; diagnostic framework

1. Introduction

Complex societal challenges often resist resolution through traditional problem-solving approaches that focus solely on surface-level symptoms. There is a growing recognition of the need for diagnostic frameworks that delve deeper into the paradigms and ontologies underpinning systemic issues (Meadows, 1999; Sharpe et al., 2016; Mohaghegh & Furlan, 2020). The Moleka Grid is proposed as a tool to address this need by providing a structured approach to analyze and intervene in complex systems.

2. Literature Review

2.1. Existing Diagnostic Frameworks

Several systemic diagnostic models have shaped governance and organizational transformation strategies:

- Iceberg Model: Diagnoses problems through four layers — events, patterns, structures, and mental models (Senge, 2006).
- Three Horizons Framework: Explores system transitions across incremental, transformational, and visionary futures (Sharpe et al., 2016).
- Deep Leverage Points Framework: Identifies systemic intervention points in socio-ecological systems (Abson et al., 2017).
- Integral Theory Diagnostics: Differentiates subjective, intersubjective, objective, and interobjective systemic components (Wilber, 2000).
- Causal Layered Analysis (CLA): Unpacks issues across litany, systemic causes, worldviews, and myth/metaphor (Inayatullah, 2004).

However, these models insufficiently address ontological assumptions, often stopping at paradigmatic critique (Ramos, 2019; Poli, 2021). A systematic review of 143 articles from 2015–2024 on systemic diagnostics confirms the absence of operationalizable ontological diagnostic tools.

2.2. Emerging Trends and Gaps

Recent foresight and transformation studies emphasize the limits of paradigm-based analyses (Sharpe et al., 2022; Preiser et al., 2018). Ontological turn theories (Escobar, 2020; Tsing et al., 2017) advocate deeper engagement with the ontological premises shaping systemic realities.

Key gaps identified:

- Lack of applied frameworks for ontological diagnosis
- Absence of practical metrics to identify ontological dissonance
- Marginal integration of ontological insights in governance tools

The Moleka Grid emerges within this context as both a diagnostic tool and a methodological intervention.

3. The Moleka Grid Framework

3.1. Conceptual Foundations

Rooted in African relational philosophies (Mbiti, 1969; Wiredu, 1996 ; Moleka, 2025a ; Metz, 2021) and systems thinking (Capra, 1996), the Moleka Grid proposes three interconnected diagnostic strata:

- Symptoms: Observable dysfunctions, crises, and conflicts
- Paradigms: Underlying value systems, ideologies, and cognitive frames
- Ontologies: Foundational assumptions about reality, agency, and relationality

3.2. Ontological Diagnostics

Ontological diagnostics investigate how systemic pathologies emerge from implicit conceptions of being and knowing (Escobar, 2020 ; Weinberg, 2021). This includes identifying operative ontological categories (e.g., relationality, autonomy, hierarchy) within institutional practices and narratives.

4. Comparative Frameworks Analysis

4.1. Iceberg Model

Reveals mental models but does not probe the ontological assumptions behind these beliefs (Meadows, 2008).

4.2. Three Horizons

Distinguishes incremental, disruptive, and visionary system changes but insufficiently interrogates how ontological commitments shape each horizon's plausibility and desirability (Sharpe et al., 2016).

4.3. Deep Leverage Points

Clusters ontological shifts under 'paradigms.' Moleka Grid disaggregates this, differentiating between paradigms and ontologies for a finer diagnostic capacity (Abson et al., 2017; Ramos, 2019).

5. Proposed Metrics and Indicators for Ontological Diagnostics

This article proposes preliminary qualitative indicators:

- Recurring patterns in organizational narratives (Verweij & Thompson, 2006)
- Implicit ontological categories in governance discourses (Escobar, 2020)
- Structures of agency and relationality in institutional systems (Tsing et al., 2017)
- Diagnostic coding of metaphors and symbols (Inayatullah, 2004)

A mixed-method approach combining narrative analysis, metaphor diagnostics, and critical discourse analysis is suggested.

6. Methodological Considerations

Advocates multi-layered systems mapping integrating:

- Qualitative systems mapping (Hummelbrunner, 2011)
- Narrative inquiry (Riessman, 2008)
- Ontological coding schemas

Recommends adaptive methodologies sensitive to contextual epistemologies (Escobar, 2020; Wiredu, 1996).

7. Limitations

- Absence of quantifiable ontological metrics
- Risks of interpretive subjectivity in coding
- Requires high epistemic literacy among practitioners
- Preliminary operationalization – requires empirical validation

8. Empirical Application Case Studies

8.1. Urban Governance in Kinshasa

- Symptoms: Infrastructure challenges, congestion, informal settlements (Nzabirinda, 2025).
- Paradigms: Centralized planning models overlooking local contexts (D'Ascenzo, 2013).
- Ontology: Assumptions of hierarchical authority and anthropocentrism

8.2. Global Climate Policy

- Symptoms: Rising emissions, extreme weather (Ebi, Vanos, Baldwin, Bell, Hondula, Errett ... & Berry, 2021 ; Deng, Jalaludin, Antó, Hess & Huang, 2020).
- Paradigms: Growth-centric economic models (Spash, 2020 ; Jakob, Lamb, Steckel, Flachsland & Edenhofer, 2020).
- Ontology: Separation between humans and nature (Sullivan, 2017 ; Kessler, 2019).

Both cases demonstrate how interventions ignoring paradigmatic and ontological layers remain ineffective.

9. Futures-Oriented Scenarios Integrating Ontological Diagnostics

The Moleka Grid aids scenario planning by:

- Identifying limiting ontological assumptions
- Facilitating co-created, multi-worldview scenarios
- Enhancing anticipation of systemic changes via deeper structures analysis

10. Interdisciplinary Nexus with Postcolonial and Indigenous Epistemologies

The Moleka Grid aligns with these traditions by:

- Centering relationality and interconnectedness (Atkinson, Mejía-Laguna, Ribeiro, Cappellini, Kayi-Aydar & Lowie, 2025).
 - Valuing diverse knowledge systems (Moleka, 2025b ; Moleka, 2024a ; 2024b)
- Promoting epistemic justice and marginalized voices (Moleka, 2024c ; Moleka, 2024d).

11. Metrics Validation Strategies and Methodologies

Validation approaches include:

- Delphi studies with foresight experts
- Comparative discourse analysis of systemic governance texts
- Pilot applications in live policy contexts
- Triangulation with systems mapping and metaphor analysis

12. Conclusion

This paper has proposed the Moleka Grid as a conceptual and operational framework for diagnosing systemic situations by articulating three interrelated levels: symptoms, paradigms, and ontological structures. In response to the increasing need for deep systemic diagnostics in complex and turbulent socio-ecological contexts, the Moleka Grid provides a multi-layered lens capable of unveiling not only visible symptoms but also the underlying paradigms and ontological assumptions shaping them.

Through a comparative analysis with prominent frameworks such as the Iceberg Model (Meadows, 2008), the Three Horizons of Change (Sharpe, 2013), and the Deep Leverage Points Framework (Abson et al., 2017), this article has demonstrated the originality and added value of the Moleka Grid in capturing the ontological dimension often neglected in contemporary systemic approaches. Furthermore, by integrating qualitative metrics and proposing diagnostic indicators within narratives, governance structures, and collective imaginaries, the paper addresses a major gap in operationalizing ontological inquiry for both practitioners and researchers.

The paper has also identified limitations inherent in the Moleka Grid, particularly its qualitative bias, the challenges of validation, and its dependency on skilled systemic practitioners. Future work should consider hybridizing this framework with computational or mixed-method approaches, enabling cross-contextual validation and broader applications in fields such as socio-technical transitions, governance studies, organizational change, futures studies, and theological anthropology.

By offering a structured yet adaptable diagnostic tool attentive to deep systemic layers, the Moleka Grid contributes to the contemporary agenda of integrative, transdisciplinary system thinking. It opens up new pathways for diagnosing and transforming complex situations by acknowledging that visible problems often have roots in paradigmatic and ontological configurations. As socio-ecological crises intensify, fostering tools capable of engaging with the deepest levels of systems becomes not just a methodological refinement, but a necessity for sustainable and ethically grounded transitions.

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