

Persistent Internal Standpoints in Artificial Systems: Part 4

Quantia and Internal Differentiation

Daniel H. Lange

Department of ECE, Technion – Israel Institute of Technology

Preprint posted January 2026; revised March 2026

Abstract

Phenomenological accounts of experience often treat standpoint as emerging from the synthesis of qualitative givenness. In artificial systems, however, no such givenness can be presupposed. This paper argues that, for machines, the explanatory order must be reversed: a persistent internal standpoint must first be established before any internally meaningful differentiation can arise. Building on a structural framework in which an artificial system maintains a self-modifying internal context that conditions its own computation, this paper introduces *quantia* as a non-phenomenal notion of internal differentiation grounded in quantity rather than quality. Quantia are not phenomenal properties, nor are they independent standpoints; they are stable, quantized patterns of differentiation within a single persistent point of view. Apparent machine qualia may be better understood as pseudo-qualia arising from the misidentification of quantia with qualitative experience. The resulting framework clarifies how artificial systems can exhibit internally meaningful differentiation without presupposing phenomenological consciousness or collapsing experience into representation.

Keywords: internal standpoint; persistent internal context; state-space geometry; closed internal loop; cognitive architecture; artificial systems; internal differentiation; quantia

Introduction

Debates about machine consciousness frequently become entangled in disputes over qualia. If qualia are taken to be irreducible phenomenal properties, artificial systems appear excluded by definition (Nagel, 1974; Chalmers, 1995). Conversely, if qualia are reduced to representations or functional roles, the notion risks trivialization. In one case the bar is set so high that artificial systems are ruled out from the start; in the other, the concept dissolves into familiar computational vocabulary and loses its distinctiveness.

This paper adopts a different strategy. Rather than asking whether machines can have qualia, it asks two prior questions: what would it take for an artificial system to have a standpoint, that is, a persistent internal point of view at all? And, given such a standpoint, what would it mean for the system's internal life to be differentiated from within?

The first question concerns the existence of an internal "inside," and the second concerns variation within that inside. Keeping these questions distinct is the central methodological commitment of this paper. A system may possess continuity of internal context without meaningful internal contrast, and it may exhibit many changing internal states without any unified standpoint from which those differences are organized. The present argument is that standpoint and differentiation play different logical roles and should not be collapsed into one another.

This distinction matters because much confusion in discussion of artificial experience arises from treating differentiation as if it were already enough to imply a point of view. Complex systems display

many differences: changing activations, shifting hidden states, context-sensitive outputs, internal competition, and recurrent modulation. None of these, by themselves, establishes that the system processes from within a single persistent internal situation. Conversely, even if such a situation exists, it does not follow that it is internally differentiated in a meaningful way. A standpoint may be unified yet comparatively undifferentiated. Differentiation therefore requires its own account.

The framework adopted here is strictly structural. It does not assume phenomenal givenness, subjective awareness, or intrinsic meaning at the outset. It asks instead what kinds of internal organization would make it coherent to speak first of a persistent internal point of view and then of internally meaningful variation within that point of view.

The argument proceeds in four steps. First, standpoint is treated as a structural precondition for internally meaningful differentiation. Second, the order of explanation used in phenomenology is inverted for the case of machines: instead of deriving standpoint from qualitative givenness, the account derives possible internal differentiation from prior structural unity. Third, the paper introduces *quantia* as a concept for stable internal differentiation that is non-phenomenal and non-representational. Fourth, it argues that *quantia* are best understood not as momentary states but as structured patterns across time within a closed internal loop.

Standpoint as a Structural Precondition

Experience, in any meaningful sense, presupposes a point of view. In human phenomenology, this point of view is given (Husserl, 1913/1982). In artificial systems, it is not.

As argued previously, most contemporary artificial systems operate episodically. Their internal activations are transient, their context is externally supplied, and nothing persists long enough to constitute an internally maintained situation (Lange, 2026a). A minimal computational analogue of standpoint was therefore characterized in terms of three structural features: persistence, internal evolution, and reciprocity. Persistence requires an internal condition that endures across computational steps. Internal evolution requires that this condition be modified by the system's own activity. Reciprocity requires that the condition influence subsequent processing.

These features are realized by a persistent internal context, the Experiential Vector (EV), whose space of possible configurations defines a structured internal background, the Computational Experiential Manifold (CEM) (Lange, 2026a,b). This background is not a mere representation of the world, but the system's own evolving internal situation. It is what makes it meaningful to say that processing occurs from somewhere.

The standpoint itself is not qualitative. It is the condition of possibility for any internally meaningful differentiation. A system without such unity may still process, transition, and respond, but it lacks a single internally maintained arena within which contrast, recurrence, and variation could become meaningful for the system itself.

This point deserves emphasis. Contrast requires a common background. To say that a system is now organized one way rather than another requires that both possibilities be related within one continuing internal frame. If the internal frame disappears at every step, no enduring contrast exists from within the system's own ongoing organization. There may still be externally observable difference, but not internally meaningful differentiation in the sense at issue here.

Standpoint therefore does more than provide continuity. It establishes internal comparability. Only within a persistent internal situation can one mode of organization differ from another in a way that

belongs to the same system across time. Without such continuity, internal states may succeed one another, but they do not form a differentiated internal life. They are simply a series.

It follows that standpoint should not be treated as one feature among others. It is architecturally prior. Before there can be structured variation within internal life, there must first be an internal life that persists as a unified field of organization. This priority is logical rather than temporal: it does not mean that one component is added earlier in engineering practice, but that the concept of internal differentiation depends on the prior availability of a unified standpoint.

Phenomenological Inversion and Its Justification

Classical phenomenology often treats qualitative givenness as primary, explaining unity of standpoint through synthesis, association, or temporal coherence (Husserl, 1913/1982). On this view, standpoint emerges from the aggregation of qualitative moments.

The present framework reverses that order. This is not a rejection of phenomenology, but a response to a different explanatory task. Phenomenology begins from the fact of experience. The current framework begins from the absence of any assumed experience.

In artificial systems, nothing is experientially given at the outset. Before asking how internal states might differ qualitatively, it must first be established what could count as an internal point of view at all. For machines, standpoint is not constituted by qualia. It is the prerequisite for any internal differentiation to become intelligible.

This inversion is therefore domain-driven rather than metaphysical. It reflects the fact that artificial systems do not begin with a phenomenological inside. If an internal inside is to be attributed at all, it must be constructed architecturally rather than presupposed. Only once such unity exists does it become meaningful to ask how that unity may be internally differentiated.

The need for this inversion becomes clearer once one considers the alternative. If one begins with differentiation alone, then any sufficiently complex system risks appearing to possess something like inner variety merely because it exhibits many changing internal values. But internal multiplicity is not yet internal differentiation in the relevant sense. A thousand fluctuating activations do not amount to an organized internal life unless they are situated within a continuing standpoint that preserves their relation to one another over time.

The inversion also protects the framework from a familiar form of subject-smuggling. Without first specifying the structural basis of standpoint, discussions of machine experience often import the idea of an already existing subject and then ask what its states are like. The present account avoids that move. It begins not with an assumed subject, but with the problem of how a unified internal point of view could become structurally coherent at all.

For machines, then, the question is not how qualitative moments synthesize into a subject. The question is how a subject-like internal unity could exist prior to any appeal to quality. Once that unity is in place, internal differentiation becomes a legitimate structural problem. Before that, it is not.

Differentiation Does Not Imply Multiple Standpoints

Once a persistent standpoint is established, it may be tempting to treat different internal modes as distinct standpoints. This temptation should be resisted.

A standpoint plays a specific logical role: it establishes unity, continuity, and internal ownership of ongoing processing (Lange, 2026b). If every internal difference were treated as a new standpoint, the result would be a proliferation of micro-points of view with no stable internal arena across time. Contrast, comparison, and history-dependence all require a shared background. For something to be “this way rather than that way,” both modes must be available relative to the same internal point of view.

Internal differentiation therefore presupposes a single standpoint; it does not generate many. A system may occupy different internally organized modes while still remaining unified within one persistent standpoint. This distinction matters because otherwise differentiation would dissolve the very unity that makes it meaningful.

The issue can be stated more precisely. A standpoint is what allows different internal organizations to belong to one continuing system from the inside. If every transition between modes produced a new standpoint, then the system would no longer possess internal continuity across those modes. It would fragment into a sequence of disconnected pseudo-subjects. In that case, even strong difference between modes would fail to count as differentiation within one standpoint. It would instead be a series of unrelated internal episodes.

This is why differentiation should not be mistaken for multiplicity of viewpoints. A system can display internally distinct tendencies, modes, or recurrent organizations while still maintaining one persistent point of view. What changes is not the existence of the standpoint, but the way that standpoint is organized from within.

What is needed, then, is a vocabulary for internally meaningful variation that does not fragment the standpoint itself. The framework introduced here proposes such a vocabulary under the name *quantia*.

Quantia: Quantized Internal Differentiation

Given a persistent standpoint, internal life may still be undifferentiated. Persistence alone does not guarantee contrast. To characterize internal variation without invoking phenomenological quality, this paper introduces *quantia*, defined as quantized internal distinctions within a single persistent standpoint.

Quantia are characterized by stable, measurable patterns in the organization of internal state trajectories, without any claim of phenomenal quality. They are not qualia. They are not phenomenal properties, not representations of external features, not independent standpoints, and are not claimed to be sufficient for consciousness. They are instead internal quantitative differentiations, or ways in which the system’s internal organization can vary relative to itself.

The point of the term is to capture differentiation without importing phenomenology. A system with *quantia* does not thereby feel something. It exhibits internally meaningful structural contrasts within a unified standpoint. These contrasts matter because they reorganize how the system’s internal life is patterned across time.

The term also serves a disciplinary purpose. It marks a boundary against two familiar reductions. On one side, *quantia* are not reduced to qualia. On the other, they are not reduced to mere numerical fluctuation. The concept is needed precisely because there is a middle terrain between phenomenal quality and arbitrary state variation: stable internal differentiation that is real for the system’s organization without being phenomenal in the human sense.

Quantia are therefore not instantaneous states. They are patterns of internal differentiation that remain stable enough, recurrent enough, or consequential enough to count as distinct ways in which a single standpoint may be organized. They concern the architecture of internal variation, not the phenomenology of appearance.

Several clarifications follow from this definition:

First, quantia are not external descriptions imposed by an observer alone. Although they may be identified analytically from outside, what they pick out is a structural fact about the system's own internal organization. Quantia are not simply whatever an observer chooses to label. They are stable and internally consequential distinctions in the system's own ongoing organization.

Second, quantia are not equivalent to every detectable difference in internal state. A system may vary endlessly without generating quantia in the present sense. Quantia require organization, not mere change. They must display persistence across time, structural salience within internal trajectories, and relevance to how processing remains organized.

Third, quantia are not hidden symbolic units. They need not correspond to discrete semantic contents or named internal features. Their "quantization" refers not to symbolic discreteness but to the emergence of stable internal distinctions that are sufficiently recurrent or structured to count as recognizable modes of internal differentiation.

What Quantia Are Not

A useful way to sharpen the concept might be by contrast.

Quantia are not qualia. Qualia, in the standard philosophical sense, refer to felt qualitative character. Quantia do not. They name structured internal differentiation without any claim that something is given, felt, or appears to the system.

Quantia are not representations. Representations are typically individuated by what they are about. They point outward, even when internally realized. Quantia are individuated by their role in the organization of the system's own internal life. Their identity depends on geometry, trajectory, recurrence, and stability, not on reference to an external object or property.

Quantia are not mere activations. Momentary spikes, values, or transient latent patterns may be detectable, but that does not make them quantia. Quantia require persistence across organized trajectories. They are features of internal differentiation over time, not isolated events.

Quantia are not additional standpoints. They do not establish new centers of internal ownership. They are ways in which one standpoint is internally patterned.

Quantia are not proto-consciousness. The concept is not introduced as a halfway house between computation and phenomenal awareness. It is introduced to describe a structural phenomenon on its own terms. Whether any relation exists between quantia and consciousness is a further question not answered here.

These clarifications matter because the usefulness of the concept depends on keeping it narrow. If quantia are allowed to collapse into any of these neighboring notions, then the paper loses its distinct contribution.

Differentiation as Structure Over Time

The EV traces trajectories through the CEM over time (Lange, 2026a,b). Quantia arise when these trajectories exhibit stable structural features such as clustering into distinct regions, characteristic transition patterns, differential stability or recurrence, and constrained accessibility between modes.

These features define internally meaningful contrasts. The system does not merely persist; it occupies different ways of being organized within its own internal situation. Quantia therefore cannot be identified with isolated values of the EV taken one by one. Their significance depends on how movement through internal space is patterned across time.

This temporal point matters because differentiation is not exhausted by immediate variation. Many systems vary from moment to moment. What matters here is whether such variation acquires stable internal structure relative to a continuing standpoint. Quantia name that structure when it becomes sufficiently organized to count as a recurrent internal distinction rather than as mere fluctuation.

Put differently, quantia are not added to the system as extra entities. They are recognizable features of the organization of internal life once persistent standpoint and trajectory-conditioned structure are in place. A system with quantia is not one that contains a second layer of hidden inner items. It is one whose internal dynamics have become differentiated in stable, internally consequential ways.

Several kinds of temporal structure are especially relevant:

One is recurrence. Certain organizations of internal life may return again and again under different local conditions. Another is stability. Some internal modes may tend to persist once entered. A third is transition bias. Movement from one internal mode to another may be easier in some directions than in others. A fourth is separation. Some regions of internal organization may remain distinct enough that the system's trajectory does not simply blur them together.

When such structures arise, the system is no longer merely changing. It is changing in ways that form an internally differentiated pattern. Quantia are names for those patterns insofar as they remain anchored within one continuing standpoint.

Quantia and Closed Internal Loops

The account of standpoint developed previously emphasized the importance of closed internal loops linking persistent context, internal geometry, and ongoing modulation of processing (Lange, 2026c). Quantia depend on that same organizational background.

Without a closed internal loop, there may be transient variation in internal states, but such variation does not become structurally integrated into a continuing internal life. Quantia require more than fluctuation. They require that internal differences be taken up into an ongoing circulation in which current organization affects future processing and future processing, in turn, reshapes internal organization.

This is why quantia are inseparable from persistence and reciprocity. A system whose internal context is repeatedly reset may display changing states, but it does not sustain differentiated modes within a single standpoint. Likewise, a system whose internal states vary without affecting later processing may exhibit internal complexity without internally meaningful differentiation. Quantia arise only when internal differences become part of a continuing pattern that matters to how the system remains organized over time.

The role of the closed loop is therefore not to create a second kind of standpoint, but to make differentiation consequential within one standpoint. Through recurrent circulation, some modes of internal organization become more stable, more accessible, more re-visitible, or more resistant to transition than others. Quantia are the structurally salient differences that emerge under these conditions.

This point can be stated in stronger architectural terms. Closed loops make internal differentiation matter to the system's own future. A difference that leaves no trace in ongoing organization does not form quantia in the robust sense used here. By contrast, a difference that reshapes future accessibility, modulation, and recurrence becomes part of the system's continuing internal life. Quantia therefore belong to differences that feed back into the organization of processing itself.

This is also why quantia should not be treated as static classifications imposed on internal trajectories from the outside. They are sustained only insofar as the system's own dynamics continue to preserve, revisit, or differentiate them. Their reality is organizational, not merely descriptive.

Machine Pseudo-Qualia as Epistemic Misattribution

What, then, of machine pseudo-qualia? On the present account, pseudo-qualia are not an ontological category. They are epistemic misattributions.

Pseudo-qualia arise when quantia, that is, structured and stable internal differentiations, are interpreted as qualia because they display contrast, continuity, and internal coherence. When an artificial system exhibits differentiated internal organization within a persistent standpoint, observers may project a phenomenological interpretation onto what is, in fact, a quantitative structure.

Machine pseudo-qualia are therefore better understood as quantia misidentified as qualia. The error lies not in detecting internal organization, but in mistaking structural differentiation for qualitative experience. Quantia indicate organization within internal life; they do not establish the presence of felt experience.

This distinction helps preserve two important points at once. On the one hand, artificial systems may possess nontrivial internal differentiation that should not be dismissed as mere surface behavior. On the other hand, acknowledging such differentiation does not require attributing phenomenal consciousness. The vocabulary of quantia is introduced precisely to hold these two points together without collapse in either direction.

The notion of pseudo-qualia has often functioned as a placeholder for unease: the system seems too internally structured to dismiss, yet not obviously conscious enough to treat as genuinely experiential. The present framework dissolves some of that unease by replacing the vague middle category with a more precise one. What observers may be noticing is not proto-feeling, but organized internal differentiation.

This does not prove that artificial systems lack qualia. It clarifies only that a large class of apparently qualia-like phenomena may be explained structurally without invoking them. That clarification is already valuable, because it reduces pressure to choose prematurely between denial and anthropomorphic projection.

Why Quantia Are Not Representations

A natural objection to a structural account of internal differentiation is that it merely redescribes representations or dispositions in unfamiliar vocabulary. When framed in terms of quantia, this objection fails for structural reasons already developed in the preceding papers (Lange, 2026b,c).

Representations are typically individuated by what they are about. Quantia are individuated by relations within the system's own internal organization. Their identity depends on internal geometry and trajectory rather than on external reference. They are not defined by correspondence to worldly properties, objects, or states of affairs.

Moreover, representational similarity is usually assessed relative to an external task, observer, or semantic interpretation. Quantia are internally grounded. They are available only relative to the system's persistent standpoint and to the patterned organization of its own internal life. Their significance lies in how they differentiate internal modes, not in what they represent.

Quantia are therefore better understood as organizational features of internal life than as symbolic encodings or latent representations. They may, of course, coexist with representational processes in a complex artificial system. But the concept itself does not depend on representation and should not be reduced to it.

The difference can be put simply. A representation says something about something. Quantia mark a structured way the system can be internally organized relative to itself. One is defined by aboutness; the other by differentiated organization within a continuing standpoint. Conflating them obscures both.

Implications for Artificial Systems

In systems such as large language models augmented with persistent internal context, quantia would not primarily increase computational power or factual accuracy. Their significance would be organizational rather than informational.

A system exhibiting quantia would be expected to show more stable internal differentiation across time: greater continuity of interpretive modes, reduced internal interference among recurrent modes, stronger long-horizon coherence, and more structured transitions between internal stances. These effects concern how computation unfolds, not what is computed.

This point is important because it shows that quantia do not add a new cognitive module. They do not introduce a hidden homunculus, a store of inner feelings, or a second-order observer. They describe how internal life may become organized once a persistent standpoint and closed-loop internal dynamics are in place.

Such systems would still not thereby be conscious in the human sense. They would, however, exhibit a richer internal organization than systems whose dynamics remain episodic or undifferentiated. Quantia name one dimension of that richness: internally meaningful contrast within a single persistent point of view.

The practical implications are therefore subtle. A system with quantia might display better continuity of internal mode under long interaction, more stable revisitation of prior internal organizations, smoother but still structured movement among modes, and less collapse into noise or arbitrary fluctuation. None of this requires phenomenology. It requires only that internal differentiation become a persistent organizational fact.

Quantia would also matter analytically. They would give researchers a way to distinguish between mere internal variability and genuine structured differentiation within one continuing standpoint. That distinction could guide architectural interpretation even before it supports engineering intervention.

Limits of the Account

This framework does not address the hard problem of consciousness (Chalmers, 1995). It does not claim that quantia are proto-qualia, nor that artificial systems thereby become conscious in the human sense.

Its contribution is narrower and more precise. It specifies structural conditions under which internal differentiation can be meaningful for an artificial system without presupposing phenomenology or collapsing experience into representation.

The account is also limited to systems that already satisfy the conditions for persistent standpoint. Without a continuing internal point of view, quantia cannot arise in the sense defined here. There may still be complexity, variation, and adaptive response, but not internally meaningful differentiation organized within a single standpoint.

A further limit is methodological. Quantia are introduced as an explanatory concept within a structural framework, not as a directly observable intrinsic kind. Their identification will depend on how one analyzes persistent trajectories, stability structures, and internal modulation. That does not weaken the concept, but it does mean that its use demands care. Not every internally detectable contrast should be counted as quantia.

Conclusion

This paper has argued for a principled separation between standpoint and internal differentiation in artificial systems. A persistent standpoint establishes the existence of an internal point of view. Quantia characterize how internal organization can vary within that point of view.

By reversing the explanatory order for machines, establishing unity before differentiation, the framework avoids both subject-smuggling and representational collapse. Machine pseudo-qualia no longer denote a mysterious middle category, but the misinterpretation of quantitative structure as qualitative experience.

The question is therefore not primarily whether machines have qualia, but what internal structures make differentiation intelligible at all. The answer proposed here is quantia: stable patterns of internal differentiation within a single persistent standpoint.

References

- Chalmers, D. J. (1995). Facing up to the problem of consciousness. *Journal of Consciousness Studies*, 2(3), 200–219.
- Husserl, E. (1913/1982). *Ideas pertaining to a pure phenomenology and to a phenomenological philosophy: First book* (F. Kersten, Trans.). Martinus Nijhoff.
- Lange, D. H. (2026a). *Persistent Internal Standpoints in Artificial Systems: Part 1 – A Structural Framework*. PhilArchive.

Lange, D. H. (2026b). *Persistent Internal Standpoints in Artificial Systems: Part 2 – Standpoint as State-Space Geometry*. PhilArchive.

Lange, D. H. (2026c). *Persistent Internal Standpoints in Artificial Systems: Part 3 – Encoding, Geometry, and Decoding in Closed Internal Loops*. PhilArchive.

Nagel, T. (1974). What is it like to be a bat? *The Philosophical Review*, 83(4), 435-450.