

A Quantized Knowledge Screening Theory of Consciousness

An Etymological and Functional Analysis

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Abstract

The nature of consciousness remains one of the most profound and elusive challenges in philosophy and science. This essay proposes a "Quantized Knowledge Screening Theory" of consciousness, grounded in a detailed analysis of its etymological roots and extended to incorporate principles of discrete information processing. Drawing from the Latin *consciūs* ("knowing with") and *scientia* ("knowledge"), the theory posits consciousness as the emergent property of a system's dynamic and selective integration of discrete "knons" (quantized bits of contact/information, hence digital instructions). This integration constitutes a "screening operation" that primarily serves as "warning function," triggering anticipatory adaptation. This framework offers a new perspective on key problems in consciousness studies, including the nature of qualia, the binding problem, and the functional role of subjective experience.

1. Introduction: The Enduring Enigma of Consciousness

Consciousness, the subjective experience of being, perceiving, and knowing, stands as a central mystery across disciplines. Despite centuries of philosophical inquiry and decades of scientific investigation, a universally accepted definition or comprehensive mechanistic explanation remains elusive. Contemporary theories often grapple with the "hard problem" of qualia (what it's like to experience something), the binding problem (how disparate sensory inputs form a unified perception), and the precise functional role of consciousness.

This essay embarks on a constructive endeavour to propose a theoretical framework: the "Quantized Knowledge Screening Theory" of consciousness, consciousness being understood, meaning experienced, as subjective realtime surveillance operation. This theory initiates its conceptual development from a rigorous examination of the etymological origins of the term "consciousness," arguing that its historical linguistic root, derived from verbalised intuition, offers profound insights into its fundamental nature. Building upon these insights, the theory then introduces the concept of "quantized knowledge" as discrete "knons" (bits or momenta of contact, i.e., instructions) and posits consciousness as a dynamic "screening operation" in personal user-friendly analogue (i.e. a private language) enabling immediate response that integrates these knons, primarily serving as "warning function" (to wit: a'ware'ness) to facilitate anticipatory adaptation and thereby survival.

2. Etymological Foundations: Unpacking "Consciousness"

The English term "consciousness," emerging prominently in the 17th century, is directly derived from the Latin *conscientia*. This Latin root itself is a compound of the prefix *con-* (meaning "with,"

"together," or "thoroughly") and the verb scire (meaning "to know"). This etymological deconstruction reveals several foundational insights:

- **Con-: Togetherness and Integration.** The prefix con- fundamentally denotes a sense of coming together, sharedness, or thoroughness. In the context of "knowing," this suggests that consciousness is not merely isolated acts of knowing, but a co-knowing or an integrated, on-going knowing. This can manifest as:
 - **Internal Coherence:** A "thorough" knowing implies that disparate pieces of information or aspects of experience are brought into a unified whole, rather than existing as fragmented parts.
 - **Shared Experience (Intersubjectivity):** The literal "knowing with others" points to the inherent social and relational dimension of consciousness, where understanding often arises through shared contexts and communication
- **Scire: Knowledge and Discernment.** The root scire signifies the act of knowing, understanding, or discerning. It implies an active process of acquiring and processing instruction (or information), distinguishing between different inputs, and forming mental analogue (i.e. private language) representations. The minim quantum of knowledge, hence cognition is defined as a contact @c, a single touch, i.e. a bit. This is the cognitive core of consciousness.
- **Conscientia: Internal Awareness and possible Moral Implication.** The noun conscientia evolved to encompass "knowledge (as series or patterns of series of scientia bits) within oneself" (self-awareness or introspection) and, possibly, a "sense of right and wrong," or "conscience." This dual meaning is critical:
 - **Self-Referentiality:** Consciousness, as personal systems status screening operation, involves not just knowing the world, but knowing that *one* knows, or perceiving what passes within one's *own* mind, hence meta screening. The latter highlights its subjective, first-person character, different for every individual within a species determined range.
 - **Evaluative Dimension:** The link to "conscience", a human high-end, later development emergent, imbues consciousness with a normative or evaluative capacity. It suggests that conscious knowing is not purely factual but also involves an assessment of implications, values, and potential consequences, particularly in social and ethical domains.

From this etymological analysis, a preliminary understanding emerges: consciousness is a form (as sort of movie, i.e. a private surveillance video) of integrated, continuous, realtime self-and-other referential knowing that inherently carries a contextual and evaluative dimension.

3. Quantized Knowledge: "Knons" and "Bites"

Building upon the etymological foundation, the "Quantized Knowledge Screening Theory" proposes a fundamental, i.e. smallest (indeed shortest wave) unit (quantum or digit) of knowledge: the "knon" as (random) contact (or touch), i.e. as irreducible bit.

- **Knons (Knowledge Quanta):** A "knon" is defined as a discrete, irreducible bit (i.e., a digit) of contact, an instruction (also as quantised information bite) responded to and so registered by a system. Analogous to a photon as a quantum of light, a knon represents the smallest, most fundamental unit of interaction between a system and its internal or external **dark** (unknowable by the subject, akin to dark matter or energy) **reality** (?). These are not necessarily raw sensory (digital) data but the most basic, because quantised, hence certain, differentiated pieces of instruction-cum-information that can be acquired. Their discrete (digital) nature implies a fundamental granularity to the instruction flow (made analogue as personal information),

differential discreteness, granularity, transmuting subjective knowledge representation into real personal experience.

- **The "Coming or Playing Together" of Knons:** The *con-scire* of consciousness is reinterpreted as the dynamic process by which these discrete knons are assembled, integrated, translated into a user-friendly analogue and interpreted. This "playing together" of digital instructions is not merely aggregation but a combinatorial process that generates higher-order, meaningful units of analogue information.
- **Bites of Knowledge:** When knons "play together" through this integrative process, they form "bites" or ongoing sequences of "bites" of knowledge. These "bites" are coherent, meaningful, and often multi-modal representations – a unified perception of an object, a complex thought, or a recognized pattern. They are the integrated outputs of the system's continuous processing of individual knons (i.e. billions per second).

4. Consciousness as a Screening Operation and Warning Function

The core functional aspect of this theory posits consciousness as an active, dynamic, and selective subjective realtime **screening operation** performed by a system, primarily serving as a **warning function** that triggers **anticipatory adaptation**.

The Screening Operation:

- o **Selective Filtering:** A system is constantly bombarded with myriad digital knons. The conscious screening operation acts as a selective filter, prioritizing certain knons based on their relevance to the system's current state, goals, and survival. This is a form of attentional gating, determining which knons are "admitted" into the integrated conscious experience.
- o **Relevance Determination:** This selection is not arbitrary. It is driven by the potential impact of incoming knons on the system's well-being and its ability to maintain homeostasis or achieve objectives.
- o **Active Integration:** The selected knons are actively integrated into coherent "bites." This process transforms raw, discrete contacts into a unified, actionable, continuous internal (in analogue as private language) representation of (a system's response to) reality. This integration is the essence of the "knowing together" derived from *con-*.

The Warning Function:

- o **Anticipation and Prediction:** The primary output of this screening and integration is not just a static representation of the present, but a dynamic, ongoing, subjective real-time predictive model of the immediate future. By integrating current knons with past experiences (stored knons/bites) and internal states, the system constantly generates predictions about potential threats or opportunities.
- o **Discrepancy Detection:** A "warning" signal, for instance discomfort or pain, arises when there is a significant discrepancy between the system's predictions and the actual incoming knons, or a deviation from a desired homeostatic state. This mismatch signals a need for re-evaluation or action.

- o **Salience and Urgency:** Knons that indicate potential danger, novelty, or critical resource availability are flagged with heightened salience and urgency, demanding immediate conscious attention and response.

Triggering Anticipatory Adaptation:

- o The ultimate purpose of this warning function, hence of consciousness, is to initiate an **adaptive response that maintains or upgrades survival**. This adaptation can manifest in various forms:
 - **Behavioural:** A physical action (e.g., fight, flight, approach).
 - **Cognitive:** A shift in attention, re-evaluation of a plan, or problem-solving.
 - **Physiological:** Internal adjustments to maintain equilibrium.
 - **Moral/Social:** The etymological link to "conscience" is particularly salient here. A "warning" from one's conscience signals a potential conflict between actions or intentions and internalized ethical frameworks. This triggers adaptive social behaviour, such as seeking to correct a wrong, feeling remorse, or adjusting future conduct to align with social norms and values. This is an anticipatory adaptation aimed at maintaining social coherence and avoiding negative social consequences.

5. Addressing Key Problems in Consciousness Studies

This "Quantized Knowledge Screening Theory" of consciousness offers compelling perspectives on several enduring problems in consciousness studies:

- **The Hard Problem (Qualia):** Qualia, the subjective "what it's like" aspect of experience, can be framed as the system's **internal qualitative signature or informational resonance** generated when specific combinations of knons are integrated and screened. This "feeling" is the system's intrinsic, non-propositional report in analogue on the *significance* or *valence* of these integrated knons, indicating their relevance for adaptation. It is the inherent qualitative output of the screening process, signalling "this matters *to me*."
- **The Binding Problem:** This is directly addressed by the "coming or playing together of knowledge bits" and the integrative nature of the screening operation. Consciousness is precisely the mechanism that binds disparate knons, originating from various sensory modalities and internal states, into unified, coherent continuous "bites" of perception and thought.
- **The Unity of Consciousness:** The "system's screening operation" implies a centralized accessible processing hub where these selected knons are integrated and transmuted into meaning via its analogue representation. This singular, unified continuous process of knowledge bit screening in subjective real-time gives rise to the seamless and unified nature of conscious experience, rather than a fragmented collection of individual knons.
- **The Function of Consciousness:** The theory provides a clear and testable functional role: **anticipatory adaptation triggered by warning signals derived from the selective screening**

and integration of discrete knowledge bits. Consciousness, in this view, is a highly evolved adaptive mechanism for navigating a complex and unpredictable environment.

6. Implications for Future Research

The druid's "Quantized Knowledge Screening Theory" proposes several avenues for interdisciplinary research:

- **Identifying the "Knon":** Future empirical work could focus on identifying the most fundamental, irreducible units of information or "contact" that a biological or artificial system processes. This might involve exploring the lowest levels of sensory transduction or neural information encoding.
- **Mechanisms of Screening and Integration:** Research should investigate the precise computational and biological mechanisms by which systems selectively screen for relevant knons and integrate them into coherent "bites." This aligns with current work in neural synchrony, global workspace theories, and predictive coding, where "warnings" could correspond to prediction error signals.
- **The Nature of Qualitative Experience:** While challenging, further exploration into the physical or informational properties that could give rise to the qualitative "feel" of integrated knons is essential. This might involve examining specific patterns of energy, information compression, or emergent properties of highly complex, self-referential systems.
- **Developmental and Evolutionary Trajectories:** The theory provides a framework for understanding how the capacity for "quantized knowledge screening" and anticipatory adaptation might have evolved across species and developed within individuals, including the emergence of moral consciousness.

7. Conclusion

By meticulously analysing the etymological roots of "consciousness" and proposing a framework of "quantized knowledge" as discrete, hence digital "knon," this essay has developed a "Quantized Knowledge Screening Theory" of consciousness. It posits consciousness as a dynamic, integrative, continuous personal screening operation that primarily functions as a warning system, triggering anticipatory adaptation. In short, consciousness functions as personal systems status surveillance operation. It offers a coherent conceptualization that addresses the subjective nature of qualia, the unity of experience, and the adaptive function of consciousness. The druid Finn's etymologically-informed and functionally-driven framework provides a fertile ground for guiding future interdisciplinary inquiry into the how and why of consciousness.