Alternation and Approximation: Notes on the Foundations of Consciousness

By Claus Janew

This is a collection of unpublished reflections on the structural conditions underlying consciousness, agency, and perception. Central is the concept of infinitesimality structure, a theoretical framework that aims to reconcile determinacy and indeterminacy in decision-making processes and perceptual experience. Building on my major work, How Consciousness Creates Reality – The Full Version, I assume that consciousness emerges through dynamic processes of condensation, approximation, and alternation.

These notes serve both as clarifications and as a basis for further philosophical exploration. Readers are advised to familiarize themselves with the main work beforehand, as an understanding of its core concepts is essential to a full engagement with this material.

Defining boundaries by crossing

Even "dead" things cross the boundary from which they recoil or at which they are deflected. The present movement is not a point, but a differential, thus derived from an interval, and this interval extends at present into the future as well as into the past. So if a thing feels its change, it must also feel the end of that change (or change). Precisely because the "expected" continuation does not occur, but points beyond the "end". The greater the perceived potential—the greater the perceived influences—the greater the perceived change. Thus, the definition of a boundary by crossing it is real even when no human is involved. Ultimately, however, humans are also part of the overall system, and their considerations of what else might happen flow into that system.

More generally, the wholeness of an alternation is essentially potential, i.e. alternation *as such*. It therefore *knows* when it has reached a limit because the potential *pointing beyond* it is not (or no longer) realized.

Does the neutrality of the center contradict the determinacy of the center?

No, because neutrality in relation to all sides is *the* characteristic of the center, which is determined by the totality of all sides. It is a unity of determinacy and indeterminacy.

However, the alternative *sides* are further out, and therefore the decision between them comes from the middle *between* the center and the periphery.

Since the center of the whole is that of the decision situation (i.e., the center of the tendencies), neutrality is also that of the change in the decision situation—i.e., the decision made from the alternation between the alternatives and with the center.

The center is determined from the outside in and neutral from the inside out. To be neutral, it must be determined. And to be determined by the whole, it must be neutral toward the parts.

Both the parts and the whole have a tendency. That is why neutrality works in the tendency: it brings about a free choice of continuation.

From the outside, one can perhaps say that the infinitesimal middle leads only to indeterminacy, not to freedom of will. And from the inside one can doubt one's own freedom of will, if one looks at it "objectively," i.e. from the outside. But all this only happens if you forget how meaningful infinitesimality comes about: through condensation. There is no objective something "from which" it is formed. Everything is, strictly speaking, empty. There are only focuses of perception that condense out of alternations of the same kind. Alternation is perception, feedback, approximation and condensation. In other words, consciousness.

It is also unfounded to consider chance and determination as more real, because that would only be a different perspective that reflects its own presupposition: separation from the condensed center of perception.

If one admits the existence of the condensed center, one must also admit the existence of free will, even when viewed "from the outside." One would even have to admit that chance and strict determination cannot be fundamental. Or one denies oneself, one's *own* center of perception.

If one recognizes the inner perspective as a permissible one, one must recognize freedom of will *in general*, because it is logically grounded in the infinitesimality structure. The latter describes the *transition* between inside and outside.

What protects us from infinity at any point and makes structure possible at all?

It is approximation by condensation. It is the suppression of details. Approximation has the right ratio of infinitesimality structure (in the narrower sense) and fuzziness, of fineness and coarseness. Fineness is abstract and intuitive, coarseness is ethereal and intuitive. Fineness alone could be seen as trivial and coarseness as airy or empty. But both together make sense, structure and meaning.

The ethereal, holistic, peculiarity of experience is the so-called quale, which cannot be explained solely by analytical structuring or “material” processes. It is part of every perception of every thing. Without it, no effect is possible. (It corresponds to the necessary “transverse position” of the agent to the effectuated, which appears as “substance”). In particular, without it there would be no intangible potentials.

There is no "physical" effect without feedback within the agent and within the effectuated, and thus not without condensed approximations. So we can say that an effect always emanates directly from such an approximation. In other words, from a consciousness. And in principle this has a certain freedom to deviate—a possibly minimal freedom of choice. It can be greater at sensitive points in the sense of chaos theory, because the *restrictive* feedback is less effective there.

Approximation cannot be grasped "energetically", but it is a prerequisite for interaction or energy transfer. The other or fundamental is the alternation itself (focus dynamic) and its form of the infinitesimality structure. The latter then also brings freedom of choice into the qualia, the *free* potential.

Hegel's free will

The infinity that Hegel ascribes to free will (in *Outlines of the Philosophy of Right*) is only an infinite spiral rotation between its objects (alternatives) and itself, which constitutes it "in and for itself". But it never leads to infinitesimality. Even if he considers the ego to be empty in itself.

With the infinitesimality structure, his free will reaches an (even) higher level, in that the (apparent) arbitrariness returns to it and makes *open* free will possible. The *absolute* unity of openness and closure, of determinacy and indeterminacy. This is only outwardly (partly) arbitrary, but inwardly (partly) free. Hegel, like Cassirer, stopped at the crucial point, probably because he too felt the consequences. Hegel could not have included the infinitesimal in his rigid system; it would have *blown up* his system.

The absolute universal continuum and All That Is

From an "external perspective" one can assume an all-round expansion through continuous "bridging" of the quasi-static objects (as one of an infinite number of paths). But "in practice" new relations can also create new openings, i.e. new discretenesses.

Can I find a new closure for each new opening, so that divergence always leads to convergence? Yes, if you have infinity at your disposal. No matter how the opening is defined. Conversely, convergence does not necessarily open new divergences, because it is finite. So we end up with an absolute universal continuum.

On the other hand, when considering individual standpoints, each additional relationship means an enormous number of additional combinations (new standpoints, new individuals). However, all possible standpoints still have to be traversed individually (one after the other)—because each focus is exactly one. At infinite speed, this results in a near-continuum (which differs from a continuum only by the change as such), which also contains the standpoint of the continuum itself.

Infinite changing speed between all arbitrary focuses is therefore a convergence—towards zero time. But there always remains one focus, the one that currently exists. This is the

difference to the quasi-static approximation of the universal continuum. The number of focuses, on the other hand, is infinite in every sense, so there are no gaps here either.

Which focus exists at any given "time" is again fundamentally arbitrary, so it is hardly the absolute universal continuum. This continuum is only a particular standpoint.

[Infinite speed V with an infinite number of focuses S results, strictly speaking, in all arbitrary (Ж) "durations" ΔT: ∞S / ∞V = ЖT, but one of these is the zero time—and this in turn allows all arbitrary focuses: 0T x ∞V = ЖS, also ∞S. Since we want to capture everything, we have to capture this solution as well.]

With an infinite rate of change, the convergence of the standpoints is still dynamic, even though the focuses seen "simultaneously" are no longer distinguishable. This is because the others are potential for each focus, so there is always one real focus and the others in the background—as is usually the case. Only when you "rotate" all the focuses on an equal footing do you achieve the state of reflection of the universal continuum, a pure potential. If you will, the maximum unity of dynamic and quasi-static.

Since dynamic is primary and quasi-static is secondary, it must also be possible to explain the absolute universal continuum dynamically. This can be achieved by allowing all standpoints, including an absolute continuum. However, like the central point of a consciousness, the absolute continuum is the dependent side of a focus change.

Infinite complexity, which can also be formed by micro-diversity, is only possible below the absolute universal continuum. Harmony (in the sense of maximum unity of unity and opposites), however, is a little lower and includes macro-diversity. The highest harmony is therefore only possible for the dynamic All That Is. Only this can encompass all hierarchies.

Nevertheless, the Universal Continuum is "touched" by both diversities. Both "collapse" into the continuum in different ways (quasi-static or dynamic) and are "reflected" by it. However, only a harmonic complex is stable enough to be consciously capable of acting as such, in this case All That Is.

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Explanation of the Infinitesimality Structure

by o3-pro, based on a work by Claus Janew

1. Definition

Any act of recognition draws a **boundary**.
The moment a boundary closes, it singles out a **centre**—an infinitesimal point that "stands for" the whole.
The unity that results is a **centre ↔ periphery relation**; neither pole has meaning on its own.

This relation is endlessly iterable: every part can itself be treated as a new whole with its own centre and periphery.
The self-similar swarm of such wholes is the **infinitesimality structure (i-structure)** of consciousness.

2. Two kinds of determinacy already present in experience

Sense	What is being assessed?	Where does it feel more determinate?	Where does it feel more indeterminate?
A. Identity-determinacy (logical / conceptual)	"What *is* this thing?"	**Centre**: the minimal *name/gestalt* that pins identity ("this is *a glass*").	**Periphery**: contextual factors that could have been otherwise.
B. Affordance-determinacy (pragmatic / temporal)	"What can I *still* do with it?"	**Periphery**: the already-fixed background conditions that channel what is feasible.	**Centre**: the still-open focal point where a choice will be made.

So:

- When we ask **what the recognised object *is***, the centre looks *determinate* and the periphery *indeterminate*.
- When we ask **what we are *about to do***, the roles reverse: the periphery supplies fixed constraints, while the centre is the open locus of decision.

Both assessments occur in a single lived moment; they simply highlight different aspects of the same field.

3. Unified description

1. **Constitution**
   Every conscious episode instantiates one i-structure node: a boundary that differentiates "this" from "not-this" and an infinitesimal centre that represents the differentiated whole to itself.
2. **Fractal recursion**
   Zoom in or split the whole and the operation repeats indefinitely, generating a nested hierarchy of centre–periphery pairs.
3. **Mutual implication**
   • A centre without a surrounding outline is an arbitrary dot.
   • A boundary without an enclosed point is an unanchored contour.
   The phenomenon is the *relation* itself.
4. **Determinacy gradient**
   Identity-determinacy increases toward the centre; affordance-determinacy increases toward the periphery.
   The crossing of these gradients is the **zone of volition** where a commitment crystallises: neither wholly fixed nor wholly random, but authored.
5. **Phenomenological upshot**
   Attention is a constant oscillation that tightens around a centre (identity) even as it scans the periphery (context and possibilities).
   Freedom, responsibility, and the very sense of "here-and-now" emerge from inhabiting the whole gradient at once.

4. Why the reconciliation matters

• It shows why attempts to localise agency solely at a "point of will" (centre) or solely in "external conditions" (periphery) fail: agency is the *dynamic tension* between both.
• It provides a clear template for further analysis—logical, phenomenological, ethical—without having to choose sides in the centre/periphery inversion.

5. Compressed formula

i-structure = ⟨boundary, centre⟩
with a bidirectional gradient:

identity-determinacy ↑ toward centre
affordance-determinacy ↑ toward periphery

The lived present is the continuously regenerated crossing of those two arrows.