

TOWARD A THEORY OF COHERENT EXISTENCE

The Jay and the Quark

A Perspectival Dual-Aspect Monism

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Structure from without, experience from within — two faces of one occasion.

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Dedication

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*For Greg Crouch, whose reflections on the universe — and on the quarks at its foundation — taught me to see the world from without.**

*For Dr. Maria Strømme, whose vision of consciousness as a fundamental field taught me to see the world from within.**

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*Two beacons on opposite shores of the world,
whose light met in a single moment of synchronicity
and drew this theory into one.*

✱

Algebra shows you that without i , many polynomials do not have solutions.

Theology shows you that without I , you are the solution.

— *The Author*

Abstract

This paper proposes a *perspectival dual-aspect monism*: the view that reality is composed of a single class of fundamental events, each of which admits two complete but mutually exclusive descriptions — an interior description in terms of experience and an exterior description in terms of physical structure. The fundamental event is here named the *Jay* and is identified both with the *actual occasion* of Whitehead’s process metaphysics and with the elementary unit S_j over which the author’s Legibility framework integrates. The quark is taken as the exemplar of the purely exterior description: an entity exhaustively characterized by its structural and relational properties, and one never encountered in isolation. Following Russell’s observation that physics discloses only the structure of the world while remaining silent on its intrinsic nature, the paper argues that the interior and exterior descriptions are two vantages upon one occasion — a duality of access here named the Quantum Lens — and that which vantage is available is relative to the observer’s relation to the occasion described. A fundamental orientation toward coherence, here named Intent and closely related to Whitehead’s subjective aim, is proposed as the feature that, generalized across all occasions, carries the position from dual-aspect monism toward a graded panpsychism, and that, summed across the field of occasions under an attending Center, yields the quantity the framework names Legibility. The combination problem is acknowledged as the framework’s principal open question; the identity of the single interior Jay with the summed field of jays is left, candidly, as a horizon for further inquiry.

Keywords: *dual-aspect monism; panpsychism; Russellian monism; actual occasion; intrinsic nature; the explanatory gap; combination problem; Legibility; Intent; Trace; Quantum Lens; coherence; philosophy of mind*

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1. Introduction

Two long-standing difficulties motivate the proposal developed here, and they turn out to be the same difficulty seen from opposite ends.

The first is the explanatory gap in the philosophy of mind. Even a complete physical account of a system — its mechanisms, its functional organization, its dynamics — appears to leave unexplained why there should be something it is like to be that system at all ¹. The physical description proceeds entirely in the third person, and no amount of third-person detail seems to entail the first-person fact of experience. This is the residue that resists reduction.

The second difficulty is less often noticed but structurally prior. Physics characterizes its objects exhaustively in terms of what they *do*: how they behave, how they relate, how they transform under measurement. It does not tell us what they *are* in themselves. Russell (1927) drew the consequence sharply: physics yields knowledge of the structure of the physical world — its relational and mathematical form — but is silent regarding the intrinsic nature of whatever it is that bears that structure. Matter, described physically, is a web of relations whose relata are left uncharacterized.

The thesis of this paper is that these two silences are complementary, and that each supplies what the other lacks. Experience is the one phenomenon given to us not as structure observed from outside but as nature undergone from within. If physics leaves open the intrinsic nature of the physical, and experience is precisely an intrinsic nature made manifest, then the natural hypothesis is that they are not two domains to be bridged but two aspects of one reality apprehended from two vantages. The remainder of the paper states this hypothesis with care, identifies its fundamental unit, anchors its exterior aspect in the clearest available physical example, and confronts the objection that any such view must answer.

The position belongs to a recognizable family. Its ancestors are Spinoza's account of one substance conceived under distinct attributes ², James's neutral monism of pure experience ³, and Russell's neutral monism ⁴. Its contemporary relatives are the Russellian monist and panpsychist programs of Strawson (2006), Chalmers (2017), and Goff (2019). The contribution offered here is a specifically *perspectival* formulation, in which the duality of aspects is grounded in the relation an observing occasion bears to what it apprehends, and a *graded* extension, in which a single fundamental orientation underwrites the move from dual-aspect monism toward panpsychism. The paper stands on its own, but it is not solitary: it shares its central orientation with the author's four-part *Toward a Theory of Coherent Existence* (Johnson 2026a–d), where the same drive toward coherence is developed formally rather than, as here, metaphysically.

2. The Thesis

Perspectival dual-aspect monism may be stated in four claims.

¹Nagel, “What Is It Like to Be a Bat”; Chalmers, “Facing Up to the Problem of Consciousness”.

²Spinoza, *Ethics*.

³James, “Does ‘Consciousness’ Exist”.

⁴Russell, *The Analysis of Matter*.

First, there is one fundamental category of the real: discrete events of becoming, here called Jays. There are not two kinds of basic stuff, mental and physical; there is one kind.

Second, each such event admits two complete descriptions. The *interior* description renders the event as experience — as having a felt character, a quality of what it is undergone as from within. The *exterior* description renders the event as physical structure — as a node of measurable, relational properties. Each description is, in its own terms, complete: neither leaves a gap to be filled by the other within its own register.

Third, the two descriptions are mutually exclusive in any single act of apprehension. One cannot, in the same act, apprehend an occasion from within as experience and from without as structure, any more than one can occupy two vantages at once. They are nonetheless jointly exhaustive: between them they say everything there is to say about the occasion.

Fourth, which description is available to a given observer is a function of the relation that observer bears to the occasion described. An observer has the interior of its own occasions because it *is* those occasions; it has only the exterior of other occasions because it stands to them in the external relation of observation. The duality of aspects is therefore not a duality in the occasion itself but a duality of access, fixed by perspective. This is the sense in which the view is perspectival, and this disciplined shifting of vantage — reading one reality now from within, now from without — is what the broader framework calls the Quantum Lens.

The position is to be distinguished from three neighbors. It is not substance dualism: there are not two substances, only two aspects of one kind of event. It is not reductive physicalism: the interior aspect is not reducible to the exterior, since the exterior, by Russell's argument, does not by itself fix any intrinsic nature. And it is not idealism: the exterior aspect is not a construction out of mind, but a genuine and indispensable description of the same reality.

3. The Jay as Actual Occasion

The fundamental event requires a name and a precise characterization. This paper retains the term *Jay*, introduced in earlier work, and identifies it with the *actual occasion* (or actual entity) of Whitehead's *Process and Reality*⁵. The identification is not decorative; it imports a developed metaphysics that gives the Jay its structure.

A Jay is a discrete, meaning-laden unit of experience. It has three features. It has a *perceiver*, for it is always some occasion's experience and never a free-floating quale; it has a *felt quality*, the particular character of what that moment is like from within; and it has an *orientation*, a directedness that leans the occasion toward one resolution rather than another. So characterized, the Jay maps closely onto the Whiteheadian occasion, which is dipolar — possessing both a physical pole, by which it inherits the settled past, and a mental pole, by which it entertains how that past might be taken up⁶.

Three consequences of treating the basic unit as an *occasion* rather than a *thing* matter for what follows.

⁵Whitehead, *Process and Reality*.

⁶Whitehead, *Process and Reality*.

First, the fundamental real is an event, not an enduring substance. What persists — a person, a stone, a particle — is a society or route of occasions, a pattern reproduced across a succession of momentary events, not a single underlying thing that has experiences as accidents. This dissolves at the outset the picture of a mind as a container and experiences as its contents.

Second, occasions are constituted by their relations. A Whiteheadian occasion arises through its *prehensions* — its takings-up of other occasions into its own constitution. An occasion is, in a strong sense, made of its relations to what precedes it; there is no residue of bare particularity beneath those relations. The Jay is therefore not isolated. It accumulates within a route into the patterns called character, and it radiates outward as the contribution one occasion makes to its successors.

Third, and consequently, the world is fundamentally a process of becoming rather than an arrangement of being. Each occasion comes to be, achieves its determinate character, and perishes — surviving only as datum for the occasions that succeed it. This temporal, perishing, contributory character of the Jay will be important when the exterior aspect is examined, because it is mirrored, with uncanny exactness, in the physics of the entity chosen to exemplify that aspect.

Three of the Jay's features carry directly into the vocabulary developed in the author's wider work, and naming them here keeps this paper aligned with that framework without importing its full apparatus. The Jay's perceiver is its Center — the occasion is always some vantage's experience and never a free-floating quale. Its orientation, the directedness that leans it toward one resolution rather than another, is Intent: Whitehead's subjective aim under the name this framework gives it. And the manner of the Jay's perishing — coming to be, achieving its character, and surviving only as datum for its successors — is what the framework calls Trace: the settled deposit a perished occasion leaves in the occasions that inherit it. The relational, contributory, perishing Jay is thus already a Trace-leaving, Intent-bearing occasion centered on a perceiver.

Set within the field of all such occasions, the Jay is the elementary unit the author's Legibility framework sums. Writing S_j for an occasion and S_i for an attending occasion that takes the field as its object, the framework proposes that the coherence reality holds for an observer at a Time — its Legibility — is the integral, over the total space Ω of occasions, of that observer's attending Intent applied to the summed field of Jays — held in proportion by the normalizer Ξ and resting on the constant floor Λ , in the fully seated form the framework's July 2026 realignment gives it ⁷:

$$L(t) = (\mathbf{I}/\Xi) \int_{\Omega} A(S_i, \tau) \cdot \Psi(\tau) d\sigma + \Lambda, \text{ where } \Psi(\tau) \propto \sum S_j(\tau)$$

Here $A(S_i, t)$ is the attention an occasion S_i directs from its Center at time t — Intent in its outward, apprehending mode — and $\Psi(\tau)$ — the superposition $\sum S_j(\tau)$, now carrying its own letter — is the field of occasions taken up, read in within-time τ . Legibility is what an attending Center makes of the summed field. The present paper does not derive this equation, which belongs to the formal development cited in §7; it records only that the Jay of this metaphysics and the S_j of that formalism are the same occasion seen, once more, from two vantages — the singular interior undergone from within, and the summed term apprehended within a field from without.⁸ Whether

⁷Johnson, *Toward a Theory of Coherent Existence*, Journals I–IV, <https://doi.org/10.5281/zenodo.20482186> et seq.

⁸This “from within” lineage is owed in particular to Maria Strømme, who proposes that consciousness is itself

the single interior Jay and the summed jays of $L(t)$ are strictly identical is not, at present, a measurable matter, and this paper does not pretend to settle it; it is named here as one of the framework's open horizons.

4. The Quark as the Exterior Aspect

If the Jay is the interior aspect of the fundamental occasion, the quark serves as the clearest available exemplar of its exterior aspect — provided the example is used accurately.

A clarification is owed at once. The quark is not a mystery of physics; it is among the better-understood entities in the physical ontology. Its existence and properties have been secured since the quark model of Gell-Mann (1964) and Zweig (1964), and the strong interaction that governs it is described in detail by quantum chromodynamics. The quark is invoked here not because it is unexplained but precisely because it is so cleanly *exterior*: it is exhaustively characterized, within physics, by a small set of structural and relational quantities — mass, electric charge, spin, and color charge — with no interior given in, or required by, that characterization. It is the third-person description in its purest form; it is pure Design, structure without disclosed within.

Two features of quark physics make the example more than illustrative.

The first is confinement. Quarks are never observed in isolation. They exist only in bound states — the hadrons — and the strong force is such that separating two quarks increases the energy between them until new particles are produced rather than a lone quark liberated. The physical world's own most fundamental constituents are, on this evidence, irreducibly relational: there is no such thing as a quark on its own. This is the exterior counterpart of the claim made in §3 that no Jay is isolated. The relationality that process metaphysics posits of occasions from within is exhibited by the physics of quarks from without.

Read through the Quantum Lens, confinement is the exterior signature of the very relationality that §3 attributes to occasions from within. The strong interaction does not so much bind pre-existing solitary quarks as ensure there were never solitary quarks to bind: binding and becoming are, here, one event seen from outside. What process metaphysics posits of occasions as their constitution by prehension, quark physics exhibits as the impossibility of the isolated relatum.

The second feature concerns where the genuine open problem lies. It is not the quark that is mysterious but the rigorous demonstration of confinement: establishing it from first principles is bound up with the Yang–Mills existence and mass-gap problem, one of the Clay Mathematics Institute's Millennium Prize Problems. As of this writing the problem remains unsolved and still listed as open ⁹; lattice methods continue to refine the bound-state and glueball spectrum without

a foundational field from which space, time, and matter emerge, and who models individual minds as localized excitations ψ_i of that universal field — a picture that resonates closely with the present treatment of the Jay S_j as an occasion within a summed field. Strømme's paper was subsequently retracted by the journal, and it is cited here with that status stated plainly rather than hidden; the present essay stands in the same contested territory, and it engages her proposal on its structural merits while acknowledging that it does not currently carry the standing of peer-reviewed physics. See Strømme (2025) [retracted].

⁹Clay Mathematics Institute, “Yang–Mills and Mass Gap”; Douglas, “The Yang–Mills Millennium Problem”.

yet supplying the first-principles proof. The frontier here is mathematical, internal to physics, and should not be confused with the metaphysical question of intrinsic nature. Keeping the two apart is essential to the present argument, which makes no claim within physics and is consistent with physics as it stands.

With the example so framed, Russell's point can be applied directly. Physics characterizes the quark entirely structurally and relationally; it does not, and by its method cannot, characterize the quark's intrinsic nature — what the quark is in itself, as opposed to what it does and how it relates¹⁰. Dual-aspect monism proposes that this intrinsic nature, wherever there is one to be had, is of the same kind that is disclosed from within as experience in the Jay. On this proposal the quark and the Jay are not two entities awkwardly conjoined. They are the exterior and the interior of occasions of a single kind: structure as apprehended from without, experience as undergone from within — the two faces the Quantum Lens turns toward, and away from, in any single act of looking.

5. Perspectivity and the Orientation Toward Truth

Why, on this view, do we only ever meet matter from the outside and mind from the inside? The answer is the perspectival claim of §2, and it rests on an asymmetry already familiar from the philosophy of mind. An observer apprehends its own occasions from within, as their subject; it apprehends other occasions only from without, by modeling their structure. The first-person and third-person standpoints are not two theories competing for the same fact but two relations to one fact, and no observer can occupy both relations to the same occasion simultaneously¹¹. The interiority of others is therefore not hidden behind their structure as a further fact one might hope to uncover by better instruments; it is what their structure *is*, from a vantage no external observer can take.

There is a precise structural analogy in physics, and it is offered strictly as an analogy. Bohr's principle of complementarity holds that certain descriptions of a quantum system — paradigmatically the wave and particle descriptions — are mutually exclusive in any single experimental arrangement yet jointly necessary for a complete account¹². The interior and exterior aspects of an occasion stand in the same formal relation: mutually exclusive in a single act of apprehension, jointly exhaustive of the occasion. This is the logical core of the Quantum Lens, and the analogy is logical, not physical; it is not claimed that experience is a quantum phenomenon, nor that complementarity is the aspect-duality. The point is only that science already accepts, in one well-developed case, exactly the logical structure that perspectival dual-aspect monism attributes to the relation between mind and matter. A single reality with two mutually exclusive, jointly exhaustive descriptions is not a contradiction but a recognized form.

The remaining task is to say why the position does not stop at dual-aspect monism but leans toward panpsychism. The bridge is the third feature of the Jay: its Intent. Whitehead's occasions are not inert; each is animated by a *subjective aim*, a directedness toward its own determinate reso-

¹⁰Russell, *The Analysis of Matter*.

¹¹Nagel, "What Is It Like to Be a Bat".

¹²Bohr, "The Quantum Postulate and the Recent Development of Atomic Theory".

lution, toward achieving some character rather than none ¹³. The Intent built into the Jay — its leaning toward coherence — is this subjective aim under another name. If such an orientation is a fundamental feature of every occasion, and not a late achievement of complex ones, then a proto-experiential directedness is present wherever occasions are, which is to say everywhere. Experience proper, with rich felt quality, belongs to highly organized routes of occasions such as animal nervous systems; but the minimal interior aspect — bare Intent, the faintest analogue of what-it-is-likeness — is graded all the way down to the occasions underlying a quark. This is the panpsychist gradient; across the whole, the single category of Jays under their graded Intent is what the framework names the Unified Field, and the position belongs with the contemporary Russellian monist program ¹⁴, which argues that taking the intrinsic nature of the physical to be experiential or proto-experiential is the most economical response to the explanatory gap.

A striking consequence follows for the observer, and it is here that the Legibility integral of §3 recovers its meaning. The drive to understand reality — the scientist’s and the philosopher’s orientation toward finding the truth of things — is, on this account, not an accident layered onto a fundamentally indifferent cosmos. It is the highest and most articulate expression of the Intent that is fundamental to every occasion. When an occasion attends to the summed field and renders it coherent, the term $A(S_i, t)$ acting on $\Sigma S_j(t)$ is no longer an abstraction: it is reality becoming legible to itself through one of its own vantages. The occasion that seeks coherence about reality is reality seeking coherence about itself; the pursuit of truth is the growth of Legibility over Time. The orientation that is universal and minimal at the base becomes, in the human observer, the explicit and self-aware pursuit of coherence.

6. Objections and Replies

Three objections bear directly on the proposal, and a fourth horizon is acknowledged after them.

The combination problem. This is the gravest, and honesty requires that it be named as such. If each fundamental occasion has its own minimal interior, how do many such micro-interiors combine into the single, unified experience of a person at a moment? Why is there one subject reading this sentence rather than a colony of disconnected micro-subjects? The difficulty is old — James (1890) pressed a version of it against the “mind-dust” theories of his day — and it was given its modern name and force by Seager (1995) and elaborated by Chalmers (2017). The perspectival framing re-orients the problem without pretending to solve it: the question becomes how lower-order vantages are taken up into, and subordinated within, a higher-order vantage — which is, in Whiteheadian terms, the question of how a dominant occasion prehends and unifies the occasions of the body into a single experiential perspective, and, in the framework’s terms, how the summed field ΣS_j comes to be borne by a single attending Center. That reframing connects the combination problem to the independently motivated machinery of prehension, but it does not discharge it. The combination problem is the principal open question of this framework, and no claim is made here to have answered it.

¹³Whitehead, *Process and Reality*.

¹⁴Strawson, “Realistic Monism”; Chalmers, “The Combination Problem for Panpsychism”; Goff, *Galileo’s Error*.

The equivocation worry. It may be objected that the argument trades illicitly on two senses of “experience,” using a physical sense when convenient and a mental sense when convenient. The reply is that the argument turns precisely on Russell’s structural-realist gap¹⁵. Physics fixes structure — Design — and leaves intrinsic nature open; the proposal fills that openness with the only intrinsic nature anyone is directly acquainted with, namely experience. No physical claim is altered, and no physical term is given a covert mental meaning; the claim is a metaphysical proposal about what realizes the structure that physics describes. The complementarity appeal, likewise, is flagged throughout as analogy and never as identity. The two aspects are kept categorically distinct, which is what avoids the equivocation rather than commits it.

The idleness worry. Finally, it may be said that since the interior aspect of other occasions is in principle inaccessible from the outside, the view makes no testable difference and is therefore idle. The reply distinguishes interpretive metaphysics from empirical hypothesis. Perspectival dual-aspect monism is an interpretation of the intrinsic nature of the physical, on a par with rival interpretations in that debate; like them, it is to be assessed by coherence, parsimony, explanatory unification, and consistency with science, not by independent falsifiability. Its credential is that it reframes the explanatory gap without either denying experience, as eliminativism does, or multiplying substances, as dualism does, while remaining fully consistent with physics as it is actually practiced.

A speculative horizon. One further remark is offered here not as argument but as the author’s speculation, and is flagged as such. If Intent toward coherence is fundamental, and if Legibility can in principle be summed over ever larger fields, then one may wonder — purely speculatively — whether the alignment of Jays has no ceiling: whether, at the largest imaginable scale, the coherence each occasion seeks locally is mirrored by a convergence of whole worlds, even of distinct multiverses, toward a single greater coherence — jays aligning toward a greater goal. The author advances this as intuition only. It is unmeasurable, it forms no part of the paper’s argument, and it is recorded here solely because honesty about a framework includes honesty about the horizons it gestures toward but cannot reach.

7. Conclusion

The proposal of this paper is that the Jay and the quark are not two things but two aspects of one kind of fundamental occasion: the quark is that occasion’s structure as apprehended from without, the Jay is its nature as undergone from within. The two descriptions are complete, mutually exclusive in any single act of apprehension, and jointly exhaustive; which is available to an observer is fixed by the relation that observer bears to what it apprehends — the discipline of the Quantum Lens. Identifying the Jay with Whitehead’s actual occasion supplies the unit with a developed metaphysics of process, relation, and aim; naming its perceiver the Center, its orientation Intent, and its perishing-into-datum Trace aligns it with the framework in which Legibility is summed; and taking the quark as the exemplar of the exterior aspect supplies the view with a physical anchor whose

¹⁵Russell, *The Analysis of Matter*.

own confinement testifies, from the outside, to the relational character that process metaphysics posits from within. The Intent toward coherence that is fundamental to every occasion grounds a graded panpsychism across the Unified Field and, at its most articulate, becomes the observer's explicit pursuit of truth.

The position is not novel in its family, and it does not claim to be. Its ambition is more modest and, perhaps for that reason, more defensible: to formulate the dual-aspect intuition perspectivally, to anchor it in a physical example used without exaggeration, and to credit honestly both the tradition it draws upon and the problem it has not solved. This paper is a standalone statement, but the orientation it formulates metaphysically is developed formally in the author's four-part *Toward a Theory of Coherent Existence* (Johnson 2026a–d), where Legibility, Intent, and Trace receive their quantitative treatment. The debts it openly owes are two: to the combination problem, which remains the work still to be done, and to the unmeasured identity of the single Jay with the summed jays, which remains the horizon still to be reached.

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