

Contingency, Existence, and Eudaimonia in Intimate Relations

Toward a Generative-Relational
Existentialist Eudaimonism

[Working Draft]

On Shared Contingency, Relational Co-evolution,
and the Eudaimonics of the Generative Relational Field

Wanhong

昨夜星辰昨夜风，画楼西畔桂堂东。

Last night—those stars, that wind; the painted tower, the cassia hall.

身无彩凤双飞翼，心有灵犀一点通。

*Without the phoenix wings to fly together,
our hearts are joined by the unicorn's single horn of light.*

—李商隐 Li Shangyin, *Untitled* (无题)

献给自己深爱的那位
喜欢文化、旅行与大自然的同乡女孩

For her—
*the girl from home,
who loves culture, travel, and the living world.*

与她在故乡的千里之外的相遇，
是自己此生最大的幸运。
*To have found her, a thousand li from home—
this is the greatest fortune of my life.*

也献给天下所有有情人。
*And for all lovers, everywhere,
who have ever shared a flower on a path.*

此刻与你分享，感受到了幸福。

Abstract

Why is it not enough to see the flower alone? This paper takes that question seriously and develops, in answer to it, a systematic reconstruction of eudaimonia under the framework of Generative Relational Being (GRB). We argue that both the existentialist tradition—from Heidegger's *Mitsein* to Buber's *I-Thou*—and the eudaimonist tradition—from Aristotle's *phronesis* to Csikszentmihalyi's flow and Seligman's PERMA—share a structural presupposition that prevents them from accounting for shared happiness: the assumption that the subject of flourishing is the individual.

Against this presupposition, we advance three interlocking claims. First, **the subject of contingency is the relation**: the flower descends not upon either person but upon the relational field constituted by their shared life, and the act of sharing is the constitutive act by which a contingent event becomes a relational event. Second, **sharing is not the expression of relational happiness but its generative mechanism**: it triggers co-evolutionary dynamics in the coupled relational system that produce a shared attractor irreducible to either individual's dynamics. Third, **relational happiness is an emergent signal of co-evolutionary activity**: it cannot be possessed by either party because it does not reside in either party.

These claims are grounded in coupled dynamical systems theory (Kuramoto synchronisation, quantum entanglement structure), neuroscience (EEG/MEG/fMRI/fNIRS hyperscanning, embodied resonance, co-regulation), and a formal analogy with spiking neural networks (STDP as the mechanism of relational structural modification). We propose an empirical research programme for testing these claims, undertake a hermeneutic re-reading of eleven classical happiness concepts under GRB, and situate the account cross-culturally through Japanese *ma* and *en*, Confucian *ren*, and Ubuntu philosophy. The paper closes with a praxis chapter on the daily cultivation of relational happiness and a literary envoi that returns to the flower.

Keywords: contingency; existentialism; eudaimonia; relational being; co-evolution; generative justice; shared happiness; inter-brain synchrony; relational flow.

Contents

1	Prelude: A Flower on the Path	8
2	The Legacy and Limits of Existentialism	10
2.1	Heidegger: Thrownness, the Moment of Vision, and the Limits of <i>Mitsein</i>	10
2.2	Sartre: Radical Contingency and the Hell of the Other	11
2.3	Merleau-Ponty: Embodiment and the Flesh of the World	12
2.4	Buber: The <i>I–Thou</i> and the Threshold Not Crossed	13
2.5	The Shared Diagnosis	13
3	The Presuppositions of Traditional Eudaimonism	14
3.1	Aristotle: <i>Eudaimonia</i> , <i>Phronesis</i> , and the Social Conditions of Individual Flourishing	14
3.2	Epicurus and the Stoics: Retreat from Relation	15
3.3	Csikszentmihalyi: Flow and the Individual in Optimal Experience	16
3.4	Maslow: Self-Actualisation and the Hierarchy of Individual Needs	17
3.5	Self-Determination Theory: Relation as Need, Not Ground	17
3.6	Frankl: Meaning and the Individual Who Finds It	18
3.7	Seligman’s PERMA and the Aggregation of Individual Well-Being	19
3.8	The Shared Presupposition and What It Costs	19
4	The Relational Turn: Whose Contingency?	20
4.1	From Individuals-in-Relation to the Relational Field	20
4.2	Relocating Contingency: The Flower Belongs to the Relation	21
4.3	The Generative Relational Being Framework	22
4.4	The Question of the Subject Revisited	23
5	The Descent of the Contingent Event into the Relational System	24
5.1	Sharing as Constitutive Act	25
5.2	The <i>Between</i> : Topology of the Relational Space	26
5.3	The Threshold of Entry: Joint Attention and Relational Readiness	27
5.4	The Double Face of Contingency: Joy and Suffering	27
6	Co-evolution as Relational Dynamics	29
6.1	The Philosophical Register: No Isolated Individual Dynamics	29
6.2	The Formal-Physical Register: Coupled Dynamical Systems	30
6.2.1	Coupled Oscillators and the Emergence of New Attractors	30
6.2.2	Synchronisation and the Kuramoto Model	31
6.2.3	Quantum Entanglement Structure and Non-Locality	32
6.3	The Neuroscientific Register: Inter-Brain Synchrony and Embodied Resonance	33
6.3.1	Inter-Brain Synchrony: EEG, MEG, and Hyperscanning	33
6.3.2	Embodied Resonance and the Mirror System	34
6.3.3	Co-regulation and the Neurobiology of Attachment	35

7	Developmental Dynamics under Relational Coupling	36
7.1	The Problem of the Relational Phase Space	36
7.2	The Emergence and Stability of Shared Attractors	37
7.3	The Nesting of Individual and Relational Dynamics	38
7.4	The Time-Evolution of Coupling Strength	38
7.5	Event-Driven Relational Dynamics: The SNN Analogy	39
7.5.1	The SNN as a Biological Dynamical System	39
7.5.2	The Relational Analogy	40
7.5.3	The Threshold Mechanism and Relational Readiness	42
7.5.4	From Spikes to Trajectories: The Cumulative Structure of Relational Development	42
8	Empirical Methodology: Towards a Science of Relational Co-evolution	43
8.1	Verification Target One: The Descent of the Contingent Event	44
8.1.1	Hyperscanning Paradigms	44
8.1.2	Physiological Synchrony Measurement	45
8.1.3	Behavioural Coding	45
8.2	Verification Target Two: Co-evolutionary Dynamics and Structural Modification	45
8.2.1	Longitudinal Dyadic Studies	46
8.2.2	Coupling-Model Fitting	46
8.3	Research Ethics	46
8.4	Potential Biases	47
9	Phenomenology of Relational Happiness	48
9.1	The Quality of Relational Happiness: What It Is Not	49
9.2	The Positive Structure of Relational Happiness	50
9.3	Relational Flow: The Pure Form of Co-present Happiness	51
9.4	The Temporality of Relational Happiness: Depth vs. Intensity	52
10	Eudaimonistic Reconstruction: Happiness as Emergent Signal of Relational Co-evolution	53
10.1	The Central Claim: Happiness as Emergent Signal	54
10.2	Objections and Replies	55
10.3	The Three Registers of Relational Happiness	56
10.4	Relational <i>Eudaimonia</i> and Individual Flourishing	57
11	A Generative-Relational Hermeneutics of Classical Happiness Theories	59
11.1	Virtue (<i>Aretē</i>) as Relational Achievement	59
11.2	Practical Wisdom (<i>Phronesis</i>) as Relational Cognition	60
11.3	Friendship (<i>Philia</i>) Reconstituted	61
11.4	Flow as Relational Resonance	61
11.5	<i>Ataraxia</i> Reconsidered: Relational Serenity	62
11.6	<i>Apatheia</i> Inverted: The Virtue of Relational Vulnerability	62
11.7	Maslow's Hierarchy Inverted	63
11.8	Self-Determination Theory: Relatedness as Ground, Not Need	64
11.9	Frankl's Meaning as Relational Emergence	64

11.10 Subjective Well-Being Dissolved and Reconstituted	65
11.11 The PERMA Model Relationally Reconceived	65
12 Cross-Cultural Dimensions of Relational Happiness	66
12.1 Japanese <i>Ma</i> (間): The Generative Interval	67
12.2 Japanese <i>En</i> (縁) and Chinese <i>Yuan</i> (緣): The Ontology of Relational Contingency	68
12.3 Confucian Relational Ethics: <i>Ren</i> (仁) and the Constitution of the Person	69
12.4 Ubuntu Philosophy: “I Am Because We Are”	70
12.5 The GRB Account’s Own Cultural Situatedness	71
13 Praxis: The Cultivation of Relational Happiness	72
13.1 Attentional Practice: The Cultivation of Relational Readiness	73
13.2 Sharing as Practice: Timeliness, Smallness, and the Refusal to Filter	74
13.3 Co-evolutionary Receptivity: Receiving the Shared Event	75
13.4 Resisting Individualisation: The Counter-Practice of Relational Primacy	77
13.5 The Eudaimonic Practice as a Whole	78
14 Conclusions: At the Boundaries of the Frameworks	79
14.1 What the Philosophical Framework Can and Cannot Say	79
14.2 What the Formal Framework Can and Cannot Say	80
14.3 What the Empirical Framework Can and Cannot Say	81
14.4 What the Hermeneutic Re-reading Can and Cannot Say	81
14.5 Three Concentric Circles	82
14.6 Why This Paper Has No Synthetic Conclusion	83

1 Prelude: A Flower on the Path

There is a moment so ordinary that philosophy has almost never paused to look at it. You are walking—not toward anything in particular, or perhaps toward something quite specific, it does not matter—and at the edge of the path there is a flower. It has not been placed there. No one arranged it for you. It is simply there, in the way that contingent things are simply there: arrived from nowhere, held in place by soil and light and the indifference of the season, and likely to be gone before you pass this way again. You notice it. Something in you is touched.

Now: you are alone, and the moment passes into you and is absorbed and becomes part of the texture of an ordinary afternoon. This too is worth philosophical attention, and we will return to it. But it is not the moment that concerns this paper.

The moment that concerns this paper is different. You are not alone. Beside you—or perhaps a little ahead, or half-turned toward something else—is the person you love. And you see the flower, and without thinking, without calculating whether it is worth mentioning, without asking whether she will find it as beautiful as you do, you say: *look*. Or perhaps you say nothing at all, and simply touch her arm and incline your head toward it. She looks. And something happens—not in you, not in her, but *between* you—that is, in some sense that this paper will spend considerable effort trying to specify, **happiness**.

Why is this different? The flower has not changed. The path has not changed. The quality of the light, the fragrance if there is one, the precise shade of the petals: all of this is the same whether you are alone or together. And yet the experience is not the same, not in any way that can be accounted for by simple addition—your pleasure plus her pleasure—because what arises when the flower is shared is not a doubled pleasure but something of a different kind altogether. The solitary encounter with the flower is one thing. The shared encounter is not twice that thing. It is another thing.

This observation—so modest as to seem almost trivial—is the seed of the present paper. For it points toward something that neither the existentialist tradition nor the eudaimonist tradition, in their dominant forms, has been equipped to explain. Both traditions have given us rich and sophisticated accounts of what happiness is and how it arises. Both have, in their ways, acknowledged that human beings are not solitary creatures and that relations matter to flourishing. But both have assumed, at the level of their fundamental ontology, that the *subject* of happiness is the individual: that happiness is something that happens *in* a person, is *felt* by a person, is *achieved* by a person—even when that achievement involves and requires others. The flower on the path troubles this assumption. It suggests that what happened in that moment was not, in the first instance, something that happened in you or in her, but something that happened *between* you—in the relational space that your shared attention, your shared presence, your shared life had constituted.

The primary philosophical question. The question this paper addresses is not *what is happiness?* as though happiness were a property of individuals waiting to be correctly analysed. It is: *where does happiness happen?* And the answer it will defend is: in the relational field, as an emergent property of co-evolving dynamical systems, irreducible to the inner state of either participant.

To defend this answer, the paper must do several things at once. It must engage seriously with the existentialist tradition—with Heidegger’s account of thrownness and *Mitsein* [17], with Sartre’s radical contingency [32], with Merleau-Ponty’s embodied subjectivity [27], and with Buber’s *I–Thou* [5]—showing both what these traditions illuminate and where, precisely, they fall short of what the shared flower requires. It must engage equally seriously with the eudaimonist tradition—with Aristotle’s account of *eudaimonia* and *phronesis* [1], with Csikszentmihalyi’s psychology of flow [7], with the self-determination theory of Deci and Ryan [8], with Frankl’s meaning-centred existentialism [13], and with the contemporary PERMA model [33]—showing how each concept is transformed, and in some cases inverted, when the subject of flourishing is relocated from the individual to the relational field.

But the paper must also do something that philosophy alone cannot do. The claim that happiness is an emergent property of co-evolving relational dynamics is not merely a philosophical claim; it is a claim about the structure of dynamical systems, and it can be given formal content—and, importantly, empirical constraint—by drawing on theoretical physics, on computational neuroscience, and on the biology of complex systems. §6 and §7 develop the formal framework, drawing on coupled oscillator theory [19], quantum entanglement structure [10], and—in what is perhaps the paper’s most original formal contribution—an analogy between the event-driven dynamics of the relational system and the spike-timing dependent plasticity of spiking neural networks [15, 23]. §8 then translates this framework into a research programme: how would one actually test whether a contingent event descends upon a relational system rather than upon the individuals composing it? What would the EEG and MEG hyper-scanning data look like [16, 22]? What longitudinal designs would detect the co-evolutionary dynamics we are predicting?

The paper proceeds as follows. §2 traces the legacy and limits of existentialism with respect to shared contingency. §3 maps the presuppositions of traditional eudaimonism. §4 executes the relational turn, establishing the GRB framework as the paper’s theoretical home. §5 analyses the structure of the contingent event’s descent into the relational system, including its double face of joy and suffering. §6 develops the co-evolutionary account of relational dynamics in three registers: philosophical, formal-physical, and neuroscientific. §7 extends this into a full account of developmental dynamics under relational coupling, including the SNN analogy. §8 proposes the empirical methodology. §9 offers a phenomenological description of relational happiness before the formal reconstruction of §10. §11 re-reads eleven classical happiness concepts under GRB. §12 situates the account cross-culturally. §13 turns to practice. §14 draws the conclusions. The Envoi returns to the flower.

A word on this paper’s place in the series. Paper IX [37] asked how a relation *endures*—how the generative cycle avoids exhaustion and achieves the spiral rather than the circle. Paper XIII asked how trust is produced in the absence of external guarantee—how a vow without a sword can generate genuine expectation. The present paper asks a question that is in some sense prior to both: *what is it that makes a relational encounter happy?* Not happy in the thin sense of pleasant, but happy in the eudaimonist sense: constitutive of flourishing, expressive of what it is for a relational being to live well. The answer—that happiness is the signal of generative co-evolution, the felt index of two dynamical systems developing together in response to the contingency that enters their shared field—is, we believe, the missing eudaimonics of the GRB

programme: the account of what flourishing *feels like* from the inside of the relational field, and why that feeling is not incidental to flourishing but its very form.

2 The Legacy and Limits of Existentialism

The existentialist tradition is, among the great movements of modern philosophy, the one most seriously committed to the question of what it means to exist as a concrete, situated, finite being—as a being thrown into a world it did not choose, toward a death it cannot escape, in a body that is not merely its instrument but its very form of being-in-the-world. For this reason, it is the tradition from which any philosophy of shared happiness must begin. And for the same reason, it is the tradition whose limits are most instructive: because it is precisely where existentialism is most powerful—in its account of individual finitude and contingency—that it is least equipped to say what the flower on the path, shared with the one you love, actually is.

2.1 Heidegger: Thrownness, the Moment of Vision, and the Limits of *Mitsein*

Heidegger's fundamental ontology begins with a gesture that is still, after nearly a century, philosophically radical: the refusal to start with a subject who then encounters a world [17]. *Dasein*—the being for whom being is an issue—is always already in the world, always already thrown (*geworfen*) into a situation not of its choosing, always already ahead of itself in its care (*Sorge*) for its own being. The world is not an external reality that consciousness represents; it is the always-already-there within which *Dasein* finds itself.

Within this framework, contingency receives a rigorous treatment. The flower on the path is, in Heideggerian terms, a piece of *Zeug*—equipment, ready-to-hand (*zuhanden*) in the first instance, revealing its worldly character only when it breaks down or solicits attention in a way that interrupts the flow of absorbed coping. When the flower arrests the walker's movement, it withdraws from the ready-to-hand and becomes present-at-hand (*vorhanden*), an object of contemplation. More deeply, the flower participates in the structure of *Befindlichkeit*—attunement or mood—which is the way in which *Dasein* always already finds itself disposed toward the world before any explicit cognition. The walker who notices the flower does so in a mood, and the flower's beauty is not a property of the flower alone but the joint product of the flower and the attunement through which it is encountered.

So far, so illuminating. But what of the shared encounter? Heidegger does, of course, have a concept of being-with: *Mitsein*, being-with-others, is part of the existential structure of *Dasein* [17]. *Dasein* is not first a solitary subject who then enters into relations with others; it is constitutively with-others, and the others are not objects it encounters but fellow *Daseins* whose being-in-the-world is always already co-constitutive of its own. The concept is important, and it marks a genuine advance over any simple subject-object model of intersubjectivity.

And yet *Mitsein* is not enough for what the shared flower requires. The difficulty is structural: in Heidegger's account, *Mitsein* is an existential—a necessary feature of *Dasein*'s ontological structure—but it remains *Dasein*'s structure. The others are co-constitutive of *my* being-in-the-world; they enter into *my* care-structure; they shape *my* attunement. The fundamental unit of analysis remains *Dasein*—and *Dasein* is always mine (*je meines*): “the being of which

this entity is an issue is in each case mine" [17]. *Mitsein* is a structural feature of a being that remains fundamentally individual; it does not displace the individual as the locus of experience and event.

The moment of vision (*Augenblick*)—that authentic temporality in which *Dasein* grasps its situation in the fullness of its thrownness and projection—is likewise *Dasein*'s moment. It is the moment in which *I* achieve authentic self-understanding, in which *my* ownmost possibilities are disclosed. The concept has the precision and intensity that the shared flower seems to call for—that sudden illumination, that sense of the present moment held in its fullness—but it remains, in Heidegger's framework, an achievement of the individual *Dasein*, not of the relational field between two *Daseins*.

The Heideggerian limit. Heidegger's *Mitsein* establishes that being-with-others is ontologically constitutive of *Dasein*. But it does not establish that there is an ontological unit—a *wenness*—that is prior to or irreducible to the individual *Daseins* who compose it. The relational field remains, in Heidegger, a feature of *Dasein*'s structure rather than a structure in its own right.

2.2 Sartre: Radical Contingency and the Hell of the Other

If Heidegger's account of contingency is embedded in the structure of thrownness, Sartre's is more radical still [32]. For Sartre, existence precedes essence: there is no pre-given nature or telos that determines what a human being is or ought to be. The human being is condemned to be free—condemned because it did not choose this freedom, and yet cannot escape it; every situation, however constraining, leaves a residue of choice, and that residue is absolute. Contingency, for Sartre, goes all the way down: not just the situation into which one is thrown, but the very fact of one's existence is radically contingent, *de trop*—superfluous, unjustified, in excess of any reason.

This is a profound and in many ways accurate description of something. The flower on the path is, in Sartrean terms, *en-soi*—being-in-itself, brute, self-identical, without the self-transcendence that characterises human consciousness. The encounter with the flower is an encounter of *pour-soi*—being-for-itself, the human consciousness that is always already beyond itself in its projects—with the in-itself. The beauty of the flower is not in the flower; it is the *pour-soi*'s nihilating projection onto the opacity of being-in-itself.

But Sartre's account of the other—and here is what concerns us—is famously dark. The other is the gaze that turns me into an object: "hell is other people" (*L'enfer, c'est les autres*) is not a casual remark but an ontological diagnosis [32]. The other threatens my freedom by constituting me as a facticity, a thing with determinate properties seen from the outside. The fundamental relation to the other is conflict: either I objectify the other or the other objectifies me, and love—Sartre is unsparing here—is the attempt to possess the other's freedom while keeping it free, which is a contradiction, and which therefore always fails.

This is not a framework in which shared happiness can find a home. The shared flower, in Sartre's account, is not an event in a relational field; it is a moment in which two freedoms,

each radical and each threatening to the other, happen to direct their nihilating projections in the same direction. Whatever happiness arises is mine—my consciousness, my project, my freedom, temporarily and unstably aligned with another’s. The sharing does not constitute a third thing; it is at best a momentary convergence of two absolute subjectivities that remain, at bottom, in competition.

The Sartrean limit. Sartre’s radical contingency and his account of freedom are philosophically indispensable. But his ontology of conflict between freedoms makes genuine relational co-constitution—the idea that the sharing of a contingent event might produce something irreducible to either participant—structurally impossible. The *pour-soi* cannot share a world; it can only encounter other *pour-sois* in a field of mutual threat and objectification.

2.3 Merleau-Ponty: Embodiment and the Flesh of the World

Merleau-Ponty represents a significant departure from both Heidegger and Sartre, and one that moves—without fully arriving—in the direction this paper needs to go [27]. For Merleau-Ponty, the body is not the object of a constituting consciousness but the very medium of our being-in-the-world: perception is not representation but bodily engagement, and the perceived world is not a collection of objects but a field of solicitations and affordances structured by the body’s capacities.

What this means for the encounter with the flower is significant. The beauty of the flower is not the *pour-soi*’s nihilating projection onto an opaque in-itself; it is the response of a body-subject that is already attuned to the visible world through its motor habits, its perceptual history, its carnal engagement with things. The flower solicits the body; the body responds; and the beauty is in neither alone but in the encounter between a body with certain capacities and a world that calls forth those capacities.

More importantly for the shared encounter, Merleau-Ponty develops—especially in his later work on the “flesh of the world” (*la chair du monde*)—an account of intercorporeality: the idea that bodies are not isolated monads but participants in a shared carnal field, reversible touching-and-touched, seeing-and-seen [27]. When two embodied subjects perceive the same flower, they do so through bodies that are already in a kind of pre-personal intercorporeal relation, and the shared perception is not simply two separate perceptions happening simultaneously but a co-perception structured by this intercorporeal field.

This is genuinely closer to what the shared flower requires. The embodied resonance that neuroscience will later document—the mirror neuron system’s cross-individual activation, the physiological synchrony of co-present bodies—has its philosophical anticipation in Merleau-Ponty’s intercorporeality. And yet even here the relational field does not fully achieve ontological priority: the flesh of the world is a field of perception, and the co-perception of the flower is not yet the relational co-evolution that the GRB framework will identify as the locus of happiness. Intercorporeality is a structure of shared embodiment; it is not yet an account of how a contingent event descends upon a relational system and triggers the co-evolutionary dynamics in which happiness consists.

2.4 Buber: The *I–Thou* and the Threshold Not Crossed

Of all the existentialist and phenomenological thinkers, it is Martin Buber who comes closest to what this paper requires—and whose proximity to the goal makes his ultimate limitation all the more instructive [5].

Buber’s fundamental distinction between the *I–It* and the *I–Thou* attitudes is well known. In the *I–It* attitude, the other is an object in my world, to be used, analysed, represented; the relation is asymmetric, the other an *It* that I constitute as an object of experience. In the *I–Thou* attitude, the other is not an object but a subject who addresses me and to whom I respond; the relation is genuine meeting (*Begegnung*), in which both parties are transformed and neither can be reduced to what they were before the meeting. “In the beginning is the relation” (*Im Anfang ist die Beziehung*)—this is Buber’s most radical claim, and it is the one that points most directly toward the GRB framework: the relation is not secondary to the relata but constitutive of them.

And yet Buber does not complete the move that GRB requires. The *I–Thou* relation, for Buber, is a relation *between* an I and a Thou: it constitutes both, but both remain in some sense prior to the relation that constitutes them. The I that enters the *I–Thou* relation is still, in Buber’s account, an I that *has* this relation—that can also fall back into the *I–It* attitude, that can address or fail to address the other as Thou. The relation is the highest form of human existence for Buber, but it is not the *ontological ground* of the subject; it is rather the subject’s highest possibility.

Furthermore, Buber’s account of the *I–Thou* is primarily vertical—the meeting of the human I with the eternal Thou, God, as the ground of all genuine meeting—and while the horizontal meeting of two human beings is central to his thought, the relation between two finite *Is* is always mediated by and pointing toward the eternal Thou. This gives the *I–Thou* meeting a transcendent orientation that the GRB framework, with its immanent account of relational dynamics, does not share.

The Buberian threshold. Buber’s “in the beginning is the relation” is the closest approach, within the existentialist and phenomenological tradition, to the ontological claim that the GRB framework requires. But Buber does not complete the move: the relation remains, for him, the highest possibility of subjects who are in some sense already there to enter it, rather than the generative ground from which subjects emerge. The threshold that GRB crosses—locating the subject’s very constitution in the relational field—Buber approaches but does not step over.

2.5 The Shared Diagnosis

Across these four figures—and one could extend the survey to Jaspers’s *Existenzkommunikation*, to Levinas’s ethics of the face, to the phenomenology of intersubjectivity in Husserl and Schütz—the same structural feature appears: the existentialist tradition, in all its richness, takes the individual subject as its fundamental unit, and adds the other, the relation, the co-presence as a modification of, or supplement to, or structure within, that individual subject’s existence. Even Buber, who comes closest to reversing this priority, does not fully achieve the reversal.

The consequence for the philosophy of happiness is decisive. If the subject is always already individual, then happiness—whatever its content—is something that happens *in* the subject: in its attunement, its freedom, its bodily engagement, its meeting with the Thou. The other, the relation, the sharing, can enrich or constitute the conditions for this happiness; but the happiness itself remains, in the last analysis, *mine*. The shared flower, on this account, is either two separate happinesses occurring simultaneously, or one happiness (mine) that happens to require the other’s presence as its condition. What it cannot be—within the existentialist framework—is a happiness that is *irreducibly* of the relational field, that cannot be located in either participant because it does not reside in either.

This is precisely what the GRB framework will claim. But to understand what that claim requires, we must first examine the other great tradition this paper must engage and move beyond: the eudaimonist tradition, with its rich account of what flourishing consists in—and its equally systematic assumption that flourishing is the flourishing of an individual.

3 The Presuppositions of Traditional Eudaimonism

The eudaimonist tradition is, in one sense, already more hospitable to the question of shared happiness than existentialism. Where existentialism begins with the individual thrown into a world of contingency and threat, eudaimonism begins with the question of the good life—of what it is for a human being to flourish—and this question has, from Aristotle onward, been understood to implicate the social and relational dimensions of human existence. Aristotle knew that human beings are political animals (*zōon politikon*), that friendship (*philia*) is among the highest goods, that the virtues are exercised in a *polis* and cannot be fully realised in isolation [1]. The eudaimonist tradition is not naive about relationality.

And yet it shares, at the level of its fundamental ontology, the same structural feature that limits the existentialist account: the subject of flourishing is the individual. *Eudaimonia* is something that a person *has*, or *achieves*, or *lives*. The others, the relations, the community, are conditions for flourishing or constituents of it, but they are conditions for and constituents of *my* flourishing—the flourishing of a subject who is, in the last analysis, individual. This paper’s task in the present section is to trace this structural feature through the major nodes of the eudaimonist tradition, showing not only where each account falls short of the shared flower but, more importantly, *why* it falls short—what structural assumption would need to be revised for the account to accommodate what the shared flower reveals.

3.1 Aristotle: *Eudaimonia*, *Phronesis*, and the Social Conditions of Individual Flourishing

Aristotle’s account of *eudaimonia* in the *Nicomachean Ethics* is the founding document of the eudaimonist tradition, and it remains, twenty-four centuries later, philosophically indispensable [1]. *Eudaimonia*—often translated as happiness, but better rendered as flourishing or living-well-and-doing-well—is not a feeling or a subjective state but an activity: specifically, the activity of the soul in accordance with virtue (*aretē*) and, if there are several virtues, in accordance with the best and most complete. It is not something that happens to a person but something that a person does—or, more precisely, something that a person *is* in the doing: the virtuous

person does not merely act virtuously but acts from virtue, with the right motivation, at the right time, toward the right objects, in the right manner.

The social and relational dimensions of this account are real and important. The virtues—courage, justice, generosity, practical wisdom—are exercised in relation to others, and some of them, like justice and friendship-virtue, are constitutively relational: one cannot be just or a good friend in isolation. *Phronesis*—practical wisdom, the capacity to deliberate well about what conduces to flourishing in particular circumstances—requires experience of the social world and is exercised in it. And *philia*—friendship in Aristotle’s rich sense, encompassing everything from utility-friendship to the highest friendship of those who share virtue and love each other for what they are—is not merely a condition for flourishing but one of its constituents: the happy person needs friends, and not merely as instruments or as mirrors of the self, but as genuine others whose good one pursues for their own sake.

All of this is true, and this paper will draw on it in §11 when it re-reads these concepts under the GRB framework. But the structural point stands: *eudaimonia* is *my* activity, *my* excellent functioning, *my* flourishing. When Aristotle says that the happy person needs friends, he means that friendship is a constituent of *my* happy life—that without friends, *I* cannot fully flourish. The friend is not a co-subject of a shared flourishing; the friend is a condition for and partial constituent of *my individual* flourishing. Even the highest *philia*—in which two friends love each other for what they are, share a life, and pursue virtue together—is, in Aristotle’s account, a relationship that constitutes and enriches two individual *eudaimonias*, not a third thing that is the flourishing of the relation itself.

The Aristotelian presupposition. For Aristotle, the social and relational dimensions of flourishing are real and philosophically central. But they are understood as conditions for, and constituents of, the individual’s *eudaimonia*. The relational field is not itself the subject of flourishing; it is the medium in which individual flourishing is achieved and expressed.

3.2 Epicurus and the Stoics: Retreat from Relation

The Hellenistic schools represent, in different ways, a retreat from Aristotle’s social *eudaimonism*—a move toward an account of flourishing that is more independent of the social world and, crucially, more independent of what happens in it. This retreat is philosophically motivated: if flourishing depends on relations, communities, and external goods, then it is vulnerable to fortune, and the Hellenistic thinkers were deeply concerned with providing an account of happiness that was, to the greatest possible degree, within the agent’s own power.

Epicurus locates *eudaimonia* in pleasure (*hēdonē*), specifically in the absence of pain (*aponia*) and mental disturbance (*ataraxia*) [11]. But the pleasure that matters is not sensory excitement—which typically brings more pain in its wake than it is worth—but the calm pleasure of a life free from fear, desire, and disturbance. Epicurus does value friendship highly: the friends of the Garden are central to his account of the pleasant life, and his famous remark that it is more pleasant to give than to receive a benefit points toward something like a relational account of pleasure. But the fundamental structure remains individualist: *ataraxia* is a state of *my* soul,

achieved by *my* philosophical practice, in which *I* am no longer disturbed by false beliefs about death, the gods, and the nature of pleasure. The friends of the Garden are conditions for this state, not co-subjects of a shared state.

The Stoics push further in the direction of self-sufficiency [2]. For the Stoic sage, *eudaimonia* consists in virtue alone, and virtue is entirely within the agent's power regardless of external circumstances. The preferred indifferents (*prohēgmena adiaphora*)—health, wealth, friendship, reputation—are to be pursued when available but do not constitute happiness; only virtue does. This means that the Stoic sage can be happy on the rack, and that the loss of friends, community, or all external goods leaves happiness intact. The relational world is, for Stoicism, philosophically peripheral to flourishing: cosmopolitan concern for all rational beings (*oikeiōsis*) extends one's moral concern to the whole of humanity, but this extension is an expression of the sage's virtue, not a dependence of the sage's happiness on any particular relation.

Apatheia—the Stoic ideal of freedom from the passions—is, from the GRB perspective, the clearest formulation of what relational happiness must oppose. For the emotions that arise in the shared encounter with the flower—the joy, the resonance, the sense of being touched together by the contingent—are precisely the kind of affective engagement that *apatheia* aims to transcend. The Stoic sage has achieved a happiness that is invulnerable to the flower's beauty and indifferent to whether it is shared—a happiness that is, by that very invulnerability, no longer capable of the relational co-evolution that the GRB framework will identify as flourishing's highest form.

3.3 Csikszentmihalyi: Flow and the Individual in Optimal Experience

The modern psychological tradition has given the eudaimonist inheritance new empirical content, and no concept has been more influential in this tradition than Csikszentmihalyi's account of flow [7]. Flow is the state of optimal experience that occurs when a person is fully absorbed in a challenging activity, when skill and challenge are matched, when self-consciousness recedes and time is distorted, when the activity is intrinsically rewarding and the person feels a sense of effortless control. Athletes, musicians, surgeons, chess players, and rock climbers have all reported this state, and Csikszentmihalyi's research has documented its structure with considerable empirical precision.

The concept is philosophically significant: flow is not mere pleasure but engagement, not the satisfaction of desire but the full exercise of capacity, and in this sense it is closer to Aristotelian *energeia* than to Epicurean *hēdonē*. The person in flow is not passive but active, not receiving but doing, and the doing is its own reward. This captures something important about the structure of happiness that the hedonic tradition misses.

And yet the structural presupposition is evident: flow is an individual's experience, arising from the individual's engagement with a task. The challenge-skill balance is the individual's challenge-skill balance. The absorption is the individual's absorption. Even when flow occurs in a social activity—team sports, musical ensemble, collaborative work—the flow is understood as something that each individual player or musician or worker either achieves or does not achieve. The team's victory may create the conditions for the individual player's flow; it does not itself constitute a relational flow that is irreducible to the sum of individual flows.

This is not a trivial limitation. Consider the scene with which this paper began: two people

sitting together, doing nothing, in the kind of still and wordless co-presence that is one of the deepest forms of shared happiness. There is no task. There is no challenge. There is no skill being exercised. On Csikszentmihalyi's account, there is no flow—and therefore, on the most influential modern account of optimal experience, no happiness of the kind that concerns us here. The gap between what the theory predicts and what anyone who has experienced this kind of shared stillness knows to be true is itself a philosophical datum. It points to the need for a concept of relational flow that is not derivative of individual flow but genuinely different in kind—a concept that §11.4 will develop.

3.4 Maslow: Self-Actualisation and the Hierarchy of Individual Needs

Abraham Maslow's hierarchy of needs is perhaps the most widely known framework in the psychology of human motivation and flourishing [25]. The hierarchy moves from the physiological needs at the base—food, water, shelter, sleep—through safety, belonging and love, and esteem, to self-actualisation at the apex: the need to realise one's full potential, to become what one is capable of becoming. Maslow's self-actualising persons are characterised by a rich set of qualities—peak experiences, democratic character, deep interpersonal relations, autonomy, continued freshness of appreciation—that give the concept philosophical substance beyond mere self-help.

The relational dimensions of the hierarchy are acknowledged: belonging and love constitute the third level, and Maslow's self-actualisers are typically described as having profound relationships with a few significant others. But the structure of the hierarchy is unmistakably individualist: the higher needs are the individual's needs, self-actualisation is the individual's actualisation, and the relational goods at level three are understood as needs whose satisfaction enables the individual to ascend toward the apex. The other is the satisfier of my belonging-need, the partner in my love, the mirror of my esteem—but the subject whose needs are being met, whose potential is being realised, whose peak experiences are being had, is always and only the individual.

Under GRB, this hierarchy requires not merely modification but inversion at its apex. If the subject of flourishing is the relational field, then what Maslow places at the top—individual self-actualisation, the realisation of the individual's full potential—is not the highest form of flourishing but a penultimate one. The highest form is the co-evolution of a relational system that generates something irreducible to either participant: not my self-actualisation, not your self-actualisation, but the relational actualisation of a shared field that neither of us could have become alone.

3.5 Self-Determination Theory: Relation as Need, Not Ground

Deci and Ryan's self-determination theory (SDT) represents one of the most sophisticated and empirically grounded accounts of human motivation and flourishing in contemporary psychology [8]. SDT identifies three basic psychological needs whose satisfaction is necessary for well-being: autonomy (the experience of volition and self-endorsement of one's actions), competence (the experience of effectiveness and mastery), and relatedness (the experience of meaningful connection with others). All three needs are universal, and the failure to satisfy any one of them undermines well-being regardless of the satisfaction of the others.

The inclusion of relatedness as a basic need is philosophically significant, and SDT's empirical research on the conditions for relatedness—its findings on the role of autonomy-supportive environments, on the damage done by controlling relationships, on the importance of genuine rather than contingent regard—has genuine philosophical implications. SDT knows that relationships matter for flourishing and has studied how and why they matter with empirical rigour.

But the structural presupposition is once again evident: relatedness is a *need* of the individual, a need whose satisfaction contributes to the *individual's* well-being. The relational other is the satisfier of my relatedness need—or, in the more nuanced SDT account, the co-participant in an interaction that either supports or thwarts my autonomy, competence, and relatedness. The relational field is not itself a subject of flourishing; it is the medium in which individual needs are satisfied or frustrated.

The SDT presupposition. Self-determination theory's inclusion of relatedness as a basic need marks a genuine advance over purely individualist accounts of well-being. But relatedness remains, in SDT, a need of the individual rather than an ontological ground of the subject. The theory asks how the individual's need for relatedness is satisfied; it does not ask whether the individual is, at a deeper level, constituted by and in the relational field.

3.6 Frankl: Meaning and the Individual Who Finds It

Viktor Frankl's account of meaning as the fundamental human motivation—forged in the extremity of the concentration camp and developed in his logotherapy—is philosophically and humanly one of the most powerful in the modern tradition [13]. Frankl's insight that human beings can endure almost any *how* if they have a *why*—that meaning, not pleasure or power, is the primary human drive—has the kind of existential weight that only lived testimony can give to a philosophical claim.

For Frankl, meaning can be found in three ways: through what one gives to the world (creative values), through what one receives from the world (experiential values, including love and beauty), and through the attitude one takes toward unavoidable suffering (attitudinal values). The second category—experiential values, including love—points most directly toward relational happiness: the encounter with another person in love, for Frankl, is one of the highest forms of meaning-discovery.

But Frankl's account remains, structurally, an account of how the individual finds or creates meaning. Even in love, what happens is that *I* encounter *you* and, in that encounter, *I* discover the full depth of your personhood—your uniqueness, your irreplaceability, the specific way in which you are you rather than anyone else. This discovery is profoundly significant, and Frankl describes it with genuine philosophical care. But the subject who makes the discovery, who finds meaning, who is constituted by the encounter, is still the individual: the encounter enriches me, transforms me, gives me meaning; it does not produce a third ontological unit—a relational being—whose flourishing is distinct from and irreducible to mine.

3.7 Seligman's PERMA and the Aggregation of Individual Well-Being

Martin Seligman's PERMA model—Positive emotion, Engagement, Relationships, Meaning, and Accomplishment—is the most influential framework in contemporary positive psychology [33]. It is explicitly pluralist: well-being is not a single thing but a multidimensional construct, and no single component is sufficient or necessary for flourishing. The inclusion of Relationships as a distinct component marks a significant development from earlier hedonic models.

But the structure of aggregation that the PERMA model employs—well-being as the sum or combination of five components, each of which contributes to the individual's overall flourishing—reproduces, at the level of theory, the individualist presupposition. Relationships are good for *my* well-being; positive emotions are *my* positive emotions; engagement is *my* engagement; meaning is the meaning *I* find; accomplishments are *my* accomplishments. The relational component (R) is not fundamentally different in kind from the others: it is one input among five into the individual's overall well-being score.

Under GRB, this aggregation misses something essential. The happiness of the shared flower is not my positive emotion (P) plus a contribution to my relationships (R): it is a qualitatively different phenomenon that cannot be decomposed into individual components because it does not arise from the individual but from the relational field. The PERMA model, for all its sophistication, is a model of the individual's well-being in a social context, not a model of the well-being of a relational system.

3.8 The Shared Presupposition and What It Costs

Across the eudaimonist tradition—from Aristotle's virtuous activity through the Stoics' self-sufficient sage, from Csikszentmihalyi's flow through Maslow's self-actualisation, from Frankl's meaning through Seligman's PERMA—a single structural presupposition runs: **the subject of flourishing is the individual**. The others, the relations, the community, the shared encounters with contingent beauty, are conditions for, constituents of, or contributors to individual flourishing. They are not themselves the subjects of flourishing.

This presupposition is not arbitrary. It reflects a deep and in many respects accurate picture of human experience: I do experience my own happiness; I am the one who feels the joy, notices the flower, is moved by the encounter. There is something that it is like to *be me* encountering the flower, and this something is genuinely mine in a way that cannot be entirely dissolved into the relational field. The paper does not deny this. What it denies is that this is the whole story—that the individual's experience of happiness exhausts the phenomenon, that the shared encounter with the flower can be fully accounted for by decomposing it into individual experiences and summing.

What the shared flower reveals is that there is a level of the phenomenon that the individualist presupposition systematically misses: the level of the relational field itself, in which something happens that is not in me and not in you but between us, and in which the happiness that arises is an emergent property of that field rather than a property of either of us. To account for this level, a different framework is needed—one that begins not with the individual who then enters into relations but with the relational field that generates individuals and in which they continue to be constituted. That framework is what the next section introduces.

4 The Relational Turn: Whose Contingency?

The two preceding sections have traced, through the existentialist and eudaimonist traditions, a shared structural presupposition: that the subject of experience, of contingency, of flourishing, is the individual. The others, the relations, the shared encounters, are modifications of, conditions for, or contributions to this individual subject's experience and flourishing. What we need now is not a further critique of this presupposition but its replacement—a positive account of the ontological framework within which the shared flower can be understood on its own terms, without reduction to the individual experiences of the two people who share it.

This section executes what we call the relational turn: the move from an ontology of individuals-in-relation to an ontology of the relational field as the primary unit of analysis. The move is not merely terminological. It requires a genuine shift in what we take to be the fundamental explanatory unit, the primary subject of predication, the locus of events and of flourishing. We proceed in three steps: first, we establish the ontological claim about the primacy of the relational field; second, we relocate contingency within this framework, showing that the primary subject of contingency is the relation rather than the individual; third, we introduce the Generative Relational Being (GRB) framework as the theoretical home within which the paper's subsequent arguments will be developed.

4.1 From Individuals-in-Relation to the Relational Field

The standard picture of human sociality begins with individuals and adds relations. Two people exist; they enter into a relation; the relation modifies each of them in various ways; when the relation ends, they revert—changed, perhaps, but still fundamentally themselves—to individual existence. On this picture, the relation is ontologically secondary: it presupposes the individuals who compose it, and it is constituted by their choices, interactions, and mutual adjustments. The relation is real, but it is real as a property of or a connection between pre-existing individuals.

The GRB framework begins from the opposite direction [36]. The relational field is not constituted by pre-existing individuals; it is the generative ground from which individuals emerge and in which they continue to be constituted. This claim has several components that must be distinguished.

The first is ontogenetic: the human subject does not arrive in the world already formed and then enter into relations. It is constituted, from the beginning, in and through relations—with caregivers, with the social world, with language, with the material environment. The developmental psychology of attachment [4], the neuroscience of co-regulation [12], the psychoanalytic account of subject-formation through the encounter with the other [20]: all of these converge on the claim that the individual subject is not a pregiven datum but a developmental achievement, and that the relations in which it develops are not external conditions of that development but internal to it. The subject that emerges from this process is not a self that *has* relations; it is a self that *is*, in its very structure, relational.

The second component is constitutive: even the adult subject, already formed, continues to be constituted in and through its ongoing relations. This is not merely the claim that relations influence or modify the subject—that is compatible with the standard picture—but the stronger claim that the subject's ongoing identity, its sense of self, its emotional and cognitive

architecture, is continuously being shaped by and in its relational engagements. The person I am when I am with you is not the same person I am when I am alone, and this is not because I am performing a role or suppressing my true self; it is because my self is, in part, constituted by this relation, and the relation is a living, dynamic structure that continuously generates the selves it relates.

The third component is emergent: the relational field produces phenomena that are not reducible to the properties of the individuals who compose it. This is the component most directly relevant to the philosophy of happiness. The happiness of the shared flower is not the sum of two individual happinesses; it is an emergent property of the relational field—something that arises at the level of the field and cannot be located in either participant. This emergent property is real—it is experienced, it has effects, it can be studied—but it requires a level of description that the individualist framework cannot provide.

The ontological primacy of the relational field. The relational field is not constituted by pre-existing individuals who enter into relations. It is the generative ground from which individual subjects emerge and in which they are continuously constituted. The subject of relational experience—including the experience of shared happiness—is not the individual but the relational field, and the properties of this field are not reducible to the properties of the individuals who participate in it.

4.2 Relocating Contingency: The Flower Belongs to the Relation

With this ontological framework in place, we can now ask the question that titles this section: whose contingency is the flower's contingency? On the standard individualist picture, the answer is clear: the flower is contingent with respect to each individual who encounters it. It might not have been there; either person might not have been walking that path; either might have been looking elsewhere. The contingency is, so to speak, doubly individual: contingent for me, contingent for you, and the sharing of the encounter is a further contingency layered on top.

But this account misses the structure of what actually happens when the flower is shared. The flower does not descend upon two individuals who then decide to share their individual encounters with each other. The flower descends upon the relational field—upon the *between* that the two people have constituted through their shared life, their shared attention, their history of shared presence. It enters the relational system as an event in that system, and its significance is constituted by the relational field as a whole, not by either individual separately.

This claim can be given more precise content. Consider what it would mean for the flower to enter the relational field rather than the individual. The two people are walking together—which is to say, they are already in a mode of joint attention, of shared bodily orientation, of co-present awareness. They are not two separate individuals who happen to be occupying adjacent spatial positions; they are a coupled system, with a shared attentional field, a shared history of meaning, a shared set of expectations and sensitivities that have developed through their life together. When the flower appears, it appears within this shared attentional field; it

is not first noticed by one and then communicated to the other, but is—in the most direct cases—noticed jointly, as an event in the shared world rather than in either individual world.

The act of sharing—the touch on the arm, the word *look*, the inclined gaze—is not the communication of a private experience from one individual to another. It is the *constitutive act* by which the flower is introduced into the relational system as a relational event. Before the sharing, the flower may have been noticed by one person; after the sharing, it has become an event in the relational field, with a significance that is generated by the field as a whole and that neither person could have generated alone. The sharing does not report an event that has already occurred; it *produces* the event in its full relational character.

The relational subject of contingency. The contingent event—the flower on the path—is not, in the shared encounter, an event in the experience of two individuals. It is an event in the relational field, constituted as such by the act of sharing. The primary subject of contingency, in the shared encounter, is the relation, not the individual. The flower belongs, first and most fundamentally, to the *between*.

This relocation of contingency has far-reaching consequences. It means that the happiness that arises from the shared encounter with the flower is not the sum of two individual happinesses, each caused by the individual's encounter with a contingent beautiful thing. It is the happiness of the relational field responding to a contingent event that has entered it—a happiness that is, in its very structure, irreducibly relational. And it means that the capacity to receive contingent events in this way—to allow them to enter the relational field and be constituted as relational events—is itself a form of relational flourishing: a capacity of the relational system, not of either individual.

4.3 The Generative Relational Being Framework

The Generative Relational Being (GRB) framework, developed in the mother paper of this series [36], provides the theoretical scaffolding within which the arguments of this paper are developed. We summarise its key features here insofar as they bear on the philosophy of happiness, reserving the formal development for §6 and §7.

The GRB framework takes as its fundamental unit the **generative relational field**: the dynamic structure of mutual constitution, ongoing co-evolution, and emergent property-generation that characterises an intimate relational system. A generative relational field is not a static structure but a living process: it generates the selves that participate in it, it generates meanings and values that are irreducible to the contributions of either participant, and it generates its own continuation through the spiral structure that **Paper IX** analysed in terms of geometric phase and holonomy [37].

Several features of the GRB framework are directly relevant to the philosophy of happiness.

First, generativity. The relational field is not merely a site of exchange between pre-existing subjects; it is a generative system that produces—in the sense of genuinely bringing into existence—phenomena that would not exist without it. The happiness of the shared flower is one such phenomenon: it is generated by the relational field, not by either individual, and

it could not have been generated by either alone. Generativity, in this sense, is the relational field's fundamental characteristic: it is constitutively productive of new being, new value, new experience.

Second, the three registers. Following the psychoanalytic tradition [20], the GRB framework distinguishes three registers in which relational phenomena occur: the imaginary (the register of image, identification, and the specular relation), the symbolic (the register of language, law, and the social bond), and the real (the register of the unrepresentable remainder, the irreducible particularity that exceeds symbolisation). Relational happiness, on the GRB account, is primarily a phenomenon of the real register: it is the happiness of an encounter with the irreducible particularity of the other and of the shared moment, an encounter that resists full symbolisation and exceeds the imaginary idealisations that typically structure the early stages of intimate relations. This is why the shared flower—unremarkable, contingent, not arranged for effect—can carry such weight: it is an encounter with the real, with the simple contingency of things as they are, shared in the mode of genuine co-presence.

Third, holonomy and the spiral. Paper IX established that the good relational cycle is characterised by positive holonomy: after traversing a closed loop in the space of relational situations, the relational system returns not to its starting point but to a new point that carries the accumulated phase of the journey [37]. This is the spiral structure of relational flourishing—the structure that distinguishes genuine development from mere repetition, and the good cycle from the vicious one. The happiness of the shared flower participates in this structure: each shared contingent event is a small traversal of the relational field, and the happiness it generates is the holonomy accumulated in that traversal—a tiny increment of relational phase that, over time and accumulated sharing, constitutes the spiral of a shared life.

Fourth, non-possession. The GRB framework, drawing on the Daoist concept of *xuande* (玄德—the dark virtue: to generate without possessing, to act without presuming, to foster without ruling), emphasises that the happiness of the relational field cannot be possessed by either participant [21]. The attempt to possess the shared flower—to hold it, to claim it as mine, to use it as an object of exchange—is precisely the move that extinguishes the relational happiness it might otherwise generate. Relational happiness is available only to those who can receive it without grasping, share it without hoarding, and let it pass without clinging. This is not a counsel of indifference but of a particular kind of attentiveness: the attentiveness that allows the relational field to generate what it can generate when it is not constrained by the possessive structures of the individual ego.

4.4 The Question of the Subject Revisited

The relational turn, as we have described it, raises an obvious question: if the subject of flourishing is the relational field rather than the individual, does this mean that the individual's experience of happiness is philosophically irrelevant? Does the GRB framework dissolve the individual into the relation, leaving no remainder?

The answer is no, and it is important to be precise about why. The GRB framework does not deny that individuals exist, that individuals have experiences, or that there is something that it is like to be a particular person encountering a flower on a particular afternoon. What it denies is that the individual's experience, taken in isolation, exhausts the philosophical phenomenon.

The individual's experience of happiness in the shared encounter is real, but it is real as the individual's *mode of access* to a phenomenon that is itself relational—in the same way that a person's experience of a melody is real, but the melody is not *in* the person; it is in the musical structure that the person perceives.

The individual, on the GRB account, is not dissolved into the relation but *constituted* by it—which means that the individual retains a genuine particularity, a genuine subjectivity, a genuine interiority, but that this particularity, subjectivity, and interiority are themselves relational products rather than pre-given data. The self that encounters the flower is already shaped by this relation, already carries the history of shared contingencies that have entered the relational field, already perceives the flower through eyes that have been formed by shared seeing. The individual's experience is the relational field's experience, refracted through one of the perspectives it has generated.

This means, concretely, that the happiness of the shared flower is experienced *by* the individuals—it is not a happiness that floats free of any experiential subject—but it is experienced *as* something that exceeds each individual, something that is felt to come from the between, something that neither could have generated alone. This *feeling of excess*—the sense that what is happening is more than what I alone could have produced—is not an illusion. It is the individual's accurate perception of an emergent relational property, the felt signal of the relational field's generative activity. In §9, we will describe this feeling more precisely; in §10, we will give it its theoretical articulation. For now, it is enough to note that the GRB framework does not require us to choose between the individual's experience and the relational field's generativity: both are real, and the individual's experience is precisely the experience of the relational field's generativity, felt from the inside of one of the perspectives it has constituted.

The individual within the relational field. The GRB framework does not dissolve the individual into the relational field. It reconceives the individual as a product of the relational field—a perspective constituted by and within the field—whose experience of happiness is the field's generative activity felt from one of its constituted viewpoints. The individual's experience of relational happiness is both genuinely individual (it is felt by this person, from this perspective) and genuinely relational (it is the experience of something that exceeds the individual and belongs to the field).

With this framework in place, we are ready to examine, in the next section, the structure of the contingent event's descent into the relational field—and the double face of that descent, which brings not only joy but also, at times, the shared weight of suffering.

5 The Descent of the Contingent Event into the Relational System

The previous section established that the primary subject of contingency, in the shared encounter, is the relational field rather than the individual. The flower belongs to the *between*. But this claim, stated at the level of ontological framework, requires more precise elaboration: *how*, exactly, does a contingent event enter a relational system? What is the structure of its descent? And what happens to the relational system when it receives such an event—not only

when the event is beautiful and welcome, but when it is painful, unwanted, shattering?

This section answers these questions in three movements. The first analyses the act of sharing as the constitutive mechanism by which a contingent event becomes a relational event. The second examines the spatial and temporal structure of the *between*—the relational space in which the event takes on its relational character. The third confronts the double face of contingency: the fact that the same ontological structure that makes the shared flower possible also makes shared grief, shared loss, and shared trauma possible—and that a theory of relational happiness that cannot account for this double face is incomplete.

5.1 Sharing as Constitutive Act

The ordinary understanding of sharing treats it as a communicative act: one person has an experience, and then communicates it to another, who thereby comes to share in it. On this model, the experience is prior to the sharing; the sharing is its report. This is the model implicit in most philosophical and psychological treatments of social emotion and joint attention, and it is not wrong as a description of many cases. But it misses the philosophically most important cases—the cases in which sharing is not the report of a prior experience but its *constitutive condition*.

Consider, again, the flower on the path. In the most philosophically significant version of the scene, the flower is noticed jointly: there is no moment in which one person privately notices the flower and then decides to share it with the other. The two people are walking in the mode of co-present attention that an established intimate relation makes possible—a mode in which the attentional field is already, in some sense, shared, so that what one notices is always already available to the other's noticing. In this mode, the flower is not first an object of individual perception that is subsequently communicated; it is an object of joint perception from the beginning, entering the shared attentional field as a shared object.

But even in the cases where one person notices the flower first—where the sharing is preceded by an individual noticing—the act of sharing is not merely communicative. When one person touches the other's arm and says *look*, something happens that is not captured by the communication model: the flower is *transformed* by the act of sharing. It becomes, through the sharing, an event in the relational field rather than merely an object in one person's perceptual field. The other's gaze, directed toward the flower by the act of sharing, does not merely add a second perspective on the same object; it constitutes a new object—the flower-as-shared, the flower-in-the-between—that has properties neither person's individual perception could have produced.

This transformation can be made more precise. Before the sharing, the flower has, for the person who noticed it, whatever significance it has for that person: beauty, perhaps, or a mild pleasure, or a passing association. After the sharing, the flower has a new layer of significance: it is the flower that *we* saw together, at this particular moment in our shared life, in this particular mood of co-presence. This new layer of significance is not added by either person individually; it is generated by the relational field in the act of sharing. The flower-as-shared is a relational object, a product of the relational field's constitutive activity, and its significance belongs to the field rather than to either participant.

Sharing as constitutive act. The act of sharing a contingent event is not the communication of a private experience from one individual to another. It is the constitutive act by which the event is introduced into the relational field and transformed into a relational event—an event whose significance is generated by the field as a whole and belongs to the *between* rather than to either participant. Sharing does not report a relational event that has already occurred; it *produces* the event in its relational character.

5.2 The *Between*: Topology of the Relational Space

Buber's concept of the *between* (*das Zwischen*) names something real that his own framework does not fully theorise [5]. The between is not a spatial gap between two individuals, not merely the absence of either; it is a positive ontological region—a space of co-constitution, co-presence, and emergent significance—that is generated by the relational encounter and that has its own structure. The GRB framework inherits this concept from Buber but gives it more precise content.

The between, in the GRB account, is the relational field understood as a topological space—a space with its own geometry, its own structure of neighbourhoods and distances, its own curvature. This is not merely a metaphor. The formal apparatus of differential geometry and fibre bundle theory, which Paper IX applied to the analysis of relational cycles and holonomy [37], applies equally to the structure of the between: the base space is the space of relational situations (the positions, orientations, histories, and attunements that constitute the relational field at any given moment), and the fibre over each point in the base space is the space of values, meanings, and affects that the relational field generates at that situation.

Within this topological framework, the descent of a contingent event into the relational field can be understood as a perturbation of the relational geometry: the event introduces a new point into the base space, curves the geometry of the field in its neighbourhood, and thereby changes the holonomy available to subsequent trajectories through the field. The flower on the path is, formally, a perturbation: it changes the curvature of the relational geometry in the neighbourhood of the moment of sharing, and this change in curvature is what makes possible the accumulation of relational phase—the generation of something new, something that was not in the field before the event entered it.

The between has a temporal as well as a spatial structure. It is not constituted anew at each encounter but carries the history of all previous encounters—all the contingent events that have entered the relational field, all the sharings that have constituted relational objects, all the moments of co-presence that have shaped the field's geometry. When the flower enters the relational field, it enters a field already richly structured by this history: it is received by a between that has been shaped by everything the two people have shared before, and its significance is partly constituted by this history. The flower is not just *a* flower; it is *this* flower, seen by *these* people, at *this* moment in the history of *their* relational field.

This historical dimension of the between is one of the reasons why the happiness of the shared flower cannot be understood in purely synchronic terms—as a property of the present moment alone. The happiness of the shared moment is, in part, the happiness of the entire history of sharing that has made this moment possible: the accumulated holonomy of a rela-

tional life, condensed and present in the experience of this particular flower at this particular moment. The flower carries, for those who have built a between together, a weight that it cannot carry for strangers, and this weight is not a projection of individual memory but a genuine property of the relational field that the two people have constituted through their shared history.

5.3 The Threshold of Entry: Joint Attention and Relational Readiness

Not every contingent event that occurs in the vicinity of a relational field enters that field. The flower that one person notices while the other is absorbed elsewhere, distracted, or emotionally unavailable, may enter one person's individual experience without entering the relational field—or may enter it only partially, in a diminished form. This suggests that the relational field has a threshold of entry: a condition that must be met for a contingent event to descend upon the field as a relational event rather than remaining an individual event that is merely reported to another.

This threshold is what developmental psychologists call joint attention (*attention conjointe*): the capacity of two individuals to orient their attention toward a shared object in a way that each is aware not only of the object but of the other's attention to it [16]. Joint attention is not merely simultaneous attention to the same object; it is a triadic structure—self, other, object—in which the self's attention to the object is mediated by awareness of the other's attention, and vice versa. In joint attention, the object is constituted as a shared object: something that is in the attentional field of both, and that each attends to as something the other is also attending to.

Joint attention is, in this sense, the minimal condition for the constitution of the between as a relational space: without joint attention, there is no shared object, no relational event, no between in which the flower can take up its relational significance. But joint attention is itself a capacity that must be cultivated and maintained—a capacity that varies with the quality of the relational field, the history of shared attention, the degree of co-present attunement. This is why intimate relations, with their history of shared attention and their accumulated attunement, are more capable of joint attention than casual encounters: the between of an intimate relation is more richly structured, more sensitive to contingent events, more capable of receiving them as relational events.

The threshold character of joint attention also explains the phenomenology of the shared flower: the sense that the happiness it generates depends crucially on a quality of shared presence that is not always available, that can be lost through distraction or emotional distance, that must be actively maintained through the practices of relational attentiveness that §13 will discuss. The flower is always there, on the path, for anyone who passes. But it descends upon the relational field only when the field is ready to receive it—when the between is alive, when joint attention is possible, when the two people are genuinely co-present rather than merely spatially adjacent.

5.4 The Double Face of Contingency: Joy and Suffering

A theory of relational happiness that accounts only for the happy contingencies—the flowers, the unexpected beauties, the moments of shared delight—is philosophically incomplete. Con-

tingency, by its nature, is indifferent to the valence of what it delivers. The same ontological structure that makes the shared flower possible—the relational field’s openness to contingent events, its readiness to receive what enters it and constitute it as a relational event—also makes shared grief, shared loss, and shared trauma possible. A diagnosis arrives. A person we love dies. An accident happens. These events too descend upon the relational field; they too are constituted as relational events by the act of shared response; they too have a significance that belongs to the between rather than to either individual alone.

This double face of contingency is not incidental to the philosophy of relational happiness but central to it. For the capacity to receive bad contingencies together—to allow the weight of loss or fear or grief to enter the relational field and be shared, rather than borne alone—is not merely a consequence of relational happiness but one of its most important expressions. The relational field that can receive only pleasant contingencies is fragile; it is the relational field that has learned to receive all contingencies together that has achieved the depth of co-presence in which the fullest happiness is possible.

This insight has roots in the existentialist tradition we examined in §2: Heidegger’s account of being-toward-death as the condition for authentic existence, and Sartre’s insistence on the radical contingency of all situations, both suggest that the most fundamental mode of being-in-the-world involves an openness to the full range of what can happen, including what is most unwanted. The GRB framework relocates this existentialist insight from the individual to the relational field: it is not merely the individual who must be open to the full range of contingency, but the relational field itself—and the relational field’s capacity for this openness is a measure of its depth and strength.

The double face of contingency. The same structure that makes the shared flower a source of relational happiness makes shared loss, grief, and trauma possible as sources of relational depth. The relational field that is open to receiving all contingencies—beautiful and terrible alike—as relational events is stronger, more resilient, and ultimately more capable of the deep happiness that comes from full co-presence than the relational field that is open only to pleasant events. The capacity to share suffering is not opposed to the capacity for shared happiness; it is its condition.

The double face of contingency also illuminates the structure of relational resilience. When a painful contingent event—a loss, an illness, a shared failure—enters the relational field and is received as a relational event, it does not merely add pain to the field; it also, if the field is strong enough to bear it, deepens the field’s geometry. The holonomy accumulated through the shared traversal of a painful situation can be greater than the holonomy accumulated through a shared pleasant one: the co-presence required to bear loss together is more demanding, more exposing, more revelatory of the depth of the relational bond than the co-presence of shared delight. This is why the deepest intimacies are often forged not in moments of happiness but in moments of shared endurance—and why the happiness that follows from such endurance has a different quality, a different weight, than the happiness of shared flowers alone.

This observation points toward what we might call the **eudaimonics of relational resilience**: the idea that the capacity to receive bad contingencies together is not merely a useful feature

of intimate relations but a constitutive dimension of their flourishing. A relational field that has only been tested by pleasant contingencies has not yet fully developed its capacity for the deepest happiness; it is in the traversal of difficult contingencies together—in the shared experience of what is hard, unwanted, and not chosen—that the relational field achieves the depth and strength that makes its highest happiness possible.

We will return to this theme in §13, where the practical cultivation of this capacity will be discussed. For now, having established both the structure of the contingent event's descent into the relational field and the double face of that descent, we are ready to examine the dynamical consequences: how the entry of a contingent event—pleasant or painful—triggers the co-evolutionary dynamics of the relational system that constitute, in the GRB framework, the generative ground of happiness.

6 Co-evolution as Relational Dynamics

The preceding section established that a contingent event, when it enters the relational field through the constitutive act of sharing, becomes a relational event—an event whose significance belongs to the *between* rather than to either individual. But what happens next? What does the relational field *do* with the event it has received? The answer that the GRB framework proposes is: the relational field undergoes co-evolution. The two dynamical systems that compose the relational field—the two individual subjects, each with their own history, attunement, and dynamical structure—are perturbed by the event and respond to that perturbation together, in a way that produces changes in each that are irreducible to what either would have undergone alone.

This section develops the concept of relational co-evolution in three registers: philosophical, formal-physical, and neuroscientific. The three registers are not alternative descriptions of the same phenomenon but complementary levels of analysis—in the sense of Marr's levels [24]—each of which captures something that the others do not, and none of which is reducible to the others. Together, they constitute a multi-level account of how the relational field generates happiness through co-evolutionary dynamics.

6.1 The Philosophical Register: No Isolated Individual Dynamics

The philosophical core of the co-evolutionary account is a negative claim that must be stated with precision: **there are no fully isolated individual dynamics in an intimate relational system**. This is not the trivial claim that individuals influence each other—that is compatible with a picture on which each individual has their own dynamics and these dynamics are modified by external influences, including the other person. The claim is stronger: that the dynamics of each individual, within an intimate relational system, are *constitutively* shaped by the relational field, so that there is no baseline individual dynamic that exists independently of the relation and to which the individual would revert if the relation were removed.

This claim follows from the ontological framework established in §4. If the individual subject is constituted by and within the relational field, then the individual's dynamical structure—their patterns of emotional response, their attentional habits, their modes of making sense of the world—is itself a product of the relational field. The self that walks alongside the beloved,

notices the flower, and feels the happiness of sharing it, is not a self that exists independently of this relation and happens to be walking alongside someone; it is a self whose very capacity for this kind of noticing and sharing has been shaped by the history of this relation. The individual dynamics are, in this sense, always already relational dynamics.

The positive claim follows from the negative: when a contingent event enters the relational field and the two individuals respond to it together, the response of each is not simply their individual response to an external stimulus. It is a response that is already shaped by the relational field—by the history of shared responses, the accumulated attunement, the joint habits of attention—and that further shapes the relational field through the new history it creates. The co-evolution triggered by the shared flower is not two individual evolutions happening in parallel; it is a single relational evolution that produces changes in each individual that are functions of the relational field as a whole, not of either individual's dynamics in isolation.

The irreducibility of relational co-evolution. The co-evolution triggered in a relational system by a contingent event is not the sum of two individual evolutions occurring in parallel. It is a single dynamical process at the level of the relational field, whose effects on each individual are functions of the field as a whole. There are no fully isolated individual dynamics in an intimate relational system: the individual dynamics are always already relational, and the co-evolutionary response to a contingent event is irreducible to any decomposition into individual components.

The happiness that arises from this co-evolutionary process is, on the philosophical account, the *felt signal* of the relational field's generative activity. It is the way in which the relational field's co-evolution presents itself to the individuals who participate in it—the phenomenal surface of a dynamical process that occurs at the level of the field. This is why the happiness of the shared flower feels different from any happiness that either person could generate alone: it is the felt quality of a process that exceeds both of them, that is happening at a level they participate in but do not control, and that produces in each of them a sense of something coming from the between, from the shared field, rather than from within themselves.

6.2 The Formal-Physical Register: Coupled Dynamical Systems

The philosophical account of co-evolution can be given formal content by drawing on the theory of coupled dynamical systems—a branch of mathematics and theoretical physics that studies the behaviour of systems that are connected to and influence each other [19, 34]. The formal account does not replace the philosophical account but gives it mathematical precision and connects it to a rich body of theoretical and empirical results.

6.2.1 Coupled Oscillators and the Emergence of New Attractors

Consider two dynamical systems, $\mathcal{S}_1$ and $\mathcal{S}_2$, each with their own state space and their own autonomous dynamics. In the absence of coupling, each system evolves according to its own

equations of motion:

$$\dot{\mathbf{x}}_1 = \mathbf{f}_1(\mathbf{x}_1) \quad (1)$$

$$\dot{\mathbf{x}}_2 = \mathbf{f}_2(\mathbf{x}_2) \quad (2)$$

where $\mathbf{x}_i$ is the state vector of system i and $\mathbf{f}_i$ is its autonomous vector field. Each system, evolving independently, has its own attractors—its own stable states or stable cycles toward which it tends over time.

When the two systems are coupled—when each influences the other—the equations of motion become:

$$\dot{\mathbf{x}}_1 = \mathbf{f}_1(\mathbf{x}_1) + \varepsilon \mathbf{g}_1(\mathbf{x}_1, \mathbf{x}_2) \quad (3)$$

$$\dot{\mathbf{x}}_2 = \mathbf{f}_2(\mathbf{x}_2) + \varepsilon \mathbf{g}_2(\mathbf{x}_1, \mathbf{x}_2) \quad (4)$$

where ε is the coupling strength and $\mathbf{g}_i$ is the coupling function that describes how system j influences system i . The coupled system is now a single dynamical system in the product space $\mathcal{S}_1 \times \mathcal{S}_2$, with its own dynamics, its own attractors, and its own emergent behaviour.

The crucial mathematical fact is this: the attractors of the coupled system are generally *not* the attractors of the individual systems. Coupling produces new attractors—new stable states or stable cycles that exist in the product space but correspond to no attractor of either individual system. These new attractors are the formal representation of what the GRB framework calls relational co-evolution: they are the stable patterns of joint behaviour that the relational system generates through its coupling, patterns that neither individual would exhibit in isolation.

The shared flower, in this formal framework, functions as an external perturbation: a sudden change in the state of one or both systems that displaces the coupled system from its current trajectory and initiates a transient response. If the coupling is strong enough—if the relational field is deep enough—this perturbation is absorbed into the relational dynamics and processed jointly, producing a trajectory through the product space that is characteristic of the coupled system rather than of either individual. The happiness of the shared flower is, formally, the phenomenal correlate of this joint trajectory: the way in which the coupled system's response to the perturbation presents itself to the individuals who constitute it.

6.2.2 Synchronisation and the Kuramoto Model

A particularly important class of coupled dynamical systems is the class of coupled oscillators: systems in which each individual component has a natural frequency of oscillation, and coupling produces synchronisation—the alignment of the individual oscillations into a common rhythm [19]. The Kuramoto model provides the canonical mathematical treatment of this phenomenon:

$$\dot{\theta}_i = \omega_i + \frac{K}{N} \sum_{j=1}^N \sin(\theta_j - \theta_i) \quad (5)$$

where θ_i is the phase of oscillator i , ω_i is its natural frequency, K is the coupling strength,

and N is the number of oscillators. When K exceeds a critical threshold K_c , the system undergoes a phase transition from incoherence to synchronisation: the individual oscillators, despite their different natural frequencies, lock into a common phase and frequency.

Applied to the relational system, the Kuramoto model captures something important about the phenomenology of shared happiness. The two individuals in an intimate relation are, in general, oscillating at different frequencies: different rhythms of attention, different emotional tempos, different cycles of engagement and withdrawal. The coupling produced by the relational field—through shared attention, shared activity, shared history—tends to synchronise these rhythms, producing a common relational rhythm that is not the rhythm of either individual but the rhythm of the coupled system.

The contingent event—the flower on the path—functions, in the Kuramoto framework, as a perturbation that temporarily increases the effective coupling strength: the shared attention to the flower aligns the two individuals’ attentional rhythms in a way that ordinary co-presence may not. This transient increase in coupling strength produces a transient increase in synchronisation, and it is this transient synchronisation—the moment of aligned attention, aligned affect, aligned presence—that constitutes, at the formal level, the co-evolutionary response to the contingent event. The happiness of the shared flower is, in part, the felt quality of this transient synchronisation: the sense of being, for a moment, in rhythm with the other in a way that feels effortless and complete.

6.2.3 Quantum Entanglement Structure and Non-Locality

A third formal framework illuminates a different aspect of relational co-evolution: the quantum-mechanical concept of entanglement [10]. We emphasise at the outset—as this paper’s commitment to intellectual honesty requires—that the following is a **structural isomorphism** rather than a literal physical claim. We are not asserting that intimate relations involve quantum-mechanical processes in any literal sense; we are asserting that the mathematical structure of quantum entanglement provides a precise and illuminating analogy for certain features of relational co-evolution that classical dynamical systems theory does not fully capture.

A quantum system consisting of two subsystems is said to be entangled if its state cannot be written as a product of the states of the individual subsystems:

$$|\Psi\rangle \neq |\psi_1\rangle \otimes |\psi_2\rangle \quad (6)$$

In an entangled state, the two subsystems are correlated in a way that is not reducible to the properties of either subsystem considered independently: a measurement on one subsystem immediately affects the probabilities of measurement outcomes on the other, regardless of the spatial separation between them. The correlations are, in this sense, non-local: they are properties of the joint state rather than of either subsystem.

The structural analogy with relational co-evolution is precise. The relational field, on the GRB account, is a joint state that cannot be decomposed into the product of two individual states: the properties of the relational field are not reducible to the properties of either individual, and changes in one individual’s state are immediately reflected in the state of the field as a whole, not because of any causal influence transmitted between individuals but because the individuals are, in their relational existence, parts of a joint state. The non-locality

of quantum entanglement is the formal analogue of the *between's* non-reducibility to either of the individuals who constitute it.

This analogy is philosophically significant because it captures the sense in which the happiness of the shared flower is genuinely non-local: it does not reside in either person but in the relational field that both participate in, and it is experienced by each not as a property of themselves but as a property of the field in which they are jointly constituted. The happiness comes from the between; it is felt *as coming from the between*; and this phenomenological fact corresponds, at the formal level, to the non-local character of the joint relational state.

We note, for the sake of the honest account that this paper's methodology requires, that the entanglement analogy faces the same limitation that [Paper XIII](#) noted in its application of quantum dynamical systems to the analysis of trust [38]: the analogy illuminates the structure of the phenomenon but does not license any claims about the underlying physical implementation. The relational field is not a quantum system; its non-locality is not the non-locality of quantum mechanics. It is a structural non-locality—an irreducibility of the field to its parts—that the mathematical language of entanglement expresses with precision that ordinary language does not.

6.3 The Neuroscientific Register: Inter-Brain Synchrony and Embodied Resonance

The philosophical and formal accounts of relational co-evolution are complemented, at the empirical level, by a growing body of neuroscientific and biological research on the neural and physiological correlates of shared experience. This research does not reduce the philosophical phenomenon to its neural correlates—the relationship between the formal and the physical, and between the physical and the phenomenal, remains one of the deepest unsolved problems in philosophy of mind—but it provides empirical grounding for the claim that relational co-evolution is a real, measurable phenomenon that occurs at multiple levels of the organism.

6.3.1 Inter-Brain Synchrony: EEG, MEG, and Hyperscanning

The most direct neural evidence for relational co-evolution comes from hyperscanning research: studies in which the neural activity of two or more individuals is measured simultaneously, allowing the detection of inter-brain synchrony—the alignment of neural oscillations across brains [9, 16].

Electroencephalography (EEG) hyperscanning provides the highest temporal resolution: it can detect synchrony at the millisecond timescale, capturing the rapid dynamics of shared attention, joint action, and co-present affect that are most directly relevant to the phenomenology of the shared flower. EEG studies of dyadic interaction have documented inter-brain synchrony in multiple frequency bands—including theta (4–8 Hz), alpha (8–12 Hz), and gamma (30–80 Hz)—during joint attention, cooperative task performance, and face-to-face communication [22]. The synchrony is not merely a consequence of both brains processing the same external stimulus; it reflects genuine coupling between the two neural systems, as evidenced by the fact that it exceeds the synchrony observed when two individuals are presented with the same stimulus independently.

Magnetoencephalography (MEG) offers complementary advantages: superior spatial resolution compared to EEG (due to the absence of volume conduction distortion), and sensitiv-

ity to deep cortical sources that EEG cannot easily detect. MEG hyperscanning is technically more demanding than EEG hyperscanning—it requires magnetically shielded rooms and specialised infrastructure—but it provides a more complete picture of the spatial distribution of inter-brain synchrony, allowing the identification of the specific cortical networks involved in relational co-evolution.

Functional magnetic resonance imaging (fMRI) contributes the highest spatial resolution: it can localise the neural correlates of shared experience to specific brain regions with millimetre precision, identifying the prefrontal, temporal, and limbic structures that are differentially engaged during shared versus individual experience [16]. While fMRI’s temporal resolution is too low to capture the rapid dynamics of moment-to-moment co-evolution, its spatial resolution makes it indispensable for understanding the neural architecture of the relational field.

Functional near-infrared spectroscopy (fNIRS) offers a crucial practical advantage: it can be used in naturalistic environments, without the rigid constraints of MRI or MEG scanners, allowing the measurement of neural co-evolution during real-world relational interactions. fNIRS hyperscanning studies have documented inter-brain synchrony during cooperative tasks, joint music-making, and face-to-face conversation in settings that much more closely approximate the natural conditions of intimate relational life [16].

Together, these neuroimaging modalities provide convergent evidence for the neural reality of relational co-evolution. When two people share a contingent event—when they attend jointly to the flower on the path, or sit together in the wordless co-presence of relational flow—their brains are not processing the experience independently; they are coupled systems whose neural dynamics are synchronised in ways that reflect and constitute the shared experience. The inter-brain synchrony is the neural correlate of the *between*: the physical instantiation, at the level of neural dynamics, of the relational field’s co-evolutionary activity.

6.3.2 Embodied Resonance and the Mirror System

Inter-brain synchrony is not confined to the cortical level; it has embodied correlates that extend throughout the organism. The discovery of mirror neurons—neurons that fire both when an organism performs an action and when it observes the same action performed by another—has provided a neural mechanism for what Merleau-Ponty described as intercorporeality: the pre-personal, pre-cognitive resonance between embodied subjects that constitutes the ground of shared experience [29].

The mirror system is not merely a mechanism for imitation or action understanding; it is the neural substrate of embodied resonance—the way in which the other’s bodily states, expressions, and actions are directly registered in one’s own body, not as representations of the other’s states but as activations of one’s own motor and emotional systems. When the beloved is moved by the flower, the lover’s mirror system registers this movement not as an observation of an external event but as a resonance within the lover’s own embodied being. The shared emotion is not communicated from one person to another; it arises, simultaneously and through mutual embodied resonance, in both.

This embodied resonance is the neural and phenomenological correlate of what the formal framework describes as coupling: the mutual influence of two dynamical systems that produces co-evolutionary dynamics in the product space. The coupling function $g_i(\mathbf{x}_1, \mathbf{x}_2)$ in the

formal account is, at the neural level, implemented by the mirror system and the broader embodied resonance mechanisms; and the co-evolutionary trajectory through the product space is, at the phenomenological level, the shared emotional experience that arises from this mutual embodied activation.

6.3.3 Co-regulation and the Neurobiology of Attachment

A third line of neuroscientific evidence for relational co-evolution comes from the study of physiological co-regulation: the finding that intimate partners mutually regulate each other's physiological states, including heart rate, cortisol levels, respiratory rhythm, and autonomic nervous system tone [12, 31].

Co-regulation is most dramatically documented in the parent-infant dyad, where the caregiver's physiological state continuously influences the infant's—and, through the infant's responsive signals, is itself influenced by the infant's state [12]. But co-regulation extends throughout the lifespan and is robustly documented in adult intimate relationships: partners synchronise their heart rate variability during shared emotional experiences, their cortisol levels co-vary in response to shared stressors, and their autonomic regulation is mutually dependent in ways that make each partner's physiological well-being genuinely dependent on the other's physiological state.

This physiological co-regulation is not a mere consequence of shared circumstances—both partners being exposed to the same environmental conditions—but a genuine coupling of two biological systems, mediated by the full range of interpersonal signals (vocal prosody, facial expression, touch, gaze, bodily posture) that constitute the embodied communication channel of an intimate relation. The two partners are, in a physiologically precise sense, coupled dynamical systems: each partner's physiological dynamics are constitutively shaped by the other's, so that the system they compose together has properties—including regulatory capacities and resilience—that neither possesses alone.

The happiness of the shared flower has, on this account, a physiological dimension that is irreducible to either partner's individual physiological state: it is the felt quality of a moment of successful co-regulation, a moment in which the two physiological systems are in a particularly harmonious alignment—a joint homeostatic state, reached through the mutual coupling of embodied dynamics, that neither could achieve alone.

Multi-level co-evolution. Relational co-evolution is not a metaphor or a philosophical abstraction. It is a real, multi-level process that occurs simultaneously at the level of conscious experience (the phenomenology of shared happiness), neural dynamics (inter-brain synchrony in EEG, MEG, fMRI, and fNIRS), embodied resonance (the mirror system and intercorporeal activation), and physiological regulation (heart rate, cortisol, and autonomic co-regulation). These levels are not alternative descriptions but genuinely distinct levels of the same phenomenon, each capturing something the others do not, and together constituting the full structure of relational co-evolution.

The multi-level character of relational co-evolution is itself philosophically significant. It

means that the happiness of the shared flower is not a purely mental event, not a purely neural event, not a purely physiological event, but an event that occurs at all of these levels simultaneously and that can only be fully understood by attending to all of them. This is consistent with the GRB framework’s commitment to a non-reductive, multi-register analysis of relational phenomena: the formal, the neural, the embodied, and the phenomenological are all genuine levels of the relational field’s co-evolutionary activity, and the philosophy of relational happiness must be answerable to all of them.

7 Developmental Dynamics under Relational Coupling

The previous section established that the relational field is a coupled dynamical system whose co-evolutionary response to contingent events is real, multi-level, and irreducible to the sum of individual dynamics. But the account so far has been primarily synchronic: it has described what happens at a given moment when a contingent event enters the relational field. The deeper question is diachronic: how does the relational system *develop* over time? How do repeated contingent events—flowers and griefs, shared moments of beauty and shared moments of difficulty—accumulate into the trajectory of a relational life? What is the geometry of this trajectory, and how does it relate to the individual dynamics of the two people who compose the relational system?

This section addresses these diachronic questions in five movements, culminating in a formal account of event-driven relational dynamics drawn from the biology of spiking neural networks (SNN). The account is both a formal contribution—it provides a precise model of how contingent events trigger structural change in the relational system—and a philosophical one: it illuminates the temporal structure of relational flourishing in a way that connects the micro-level dynamics of shared moments to the macro-level trajectory of a shared life.

7.1 The Problem of the Relational Phase Space

To speak of the *development* of a relational system is to speak of its trajectory through a space of possible states. But what is the state space of a relational system? This question is more subtle than it appears, because the state space of the coupled system is not simply the Cartesian product of the state spaces of the two individuals.

Let $\mathcal{X}_1$ and $\mathcal{X}_2$ be the state spaces of the two individual dynamical systems—the spaces of all possible states of each individual, including their emotional states, attentional orientations, cognitive sets, and bodily dispositions. The state space of the coupled system is, at first approximation, the product space $\mathcal{X}_1 \times \mathcal{X}_2$. But this approximation misses something essential: the relational field has its own degrees of freedom—the history of shared events, the accumulated attunement, the quality of the *between*—that are not reducible to the current states of the two individuals. The full state space of the relational system must include these relational degrees of freedom:

$$\mathcal{X}_{\text{rel}} = \mathcal{X}_1 \times \mathcal{X}_2 \times \mathcal{R} \quad (7)$$

where $\mathcal{R}$ is the space of relational states—the space of all possible configurations of the *between*, including the history of shared events, the current quality of attunement, and the ge-

ometry of the relational field as shaped by past co-evolution. The dimension of $\mathcal{R}$ is, in general, much larger than the dimensions of $\mathcal{X}_1$ and $\mathcal{X}_2$: the relational field carries more information than either individual, because it carries the history of their interactions as well as their current states.

This extended state space is the proper arena for describing relational development. The trajectory of a relational system through $\mathcal{X}_{\text{rel}}$ is the trajectory of the couple's shared life: each point on the trajectory corresponds to a moment in that life, with its particular configuration of individual states and relational states, and the trajectory as a whole is the geometric realisation of the shared life in the space of possible relational configurations.

7.2 The Emergence and Stability of Shared Attractors

Within this extended phase space, the co-evolutionary dynamics of the relational system produce attractors that are genuinely relational—attractors that exist in $\mathcal{X}_{\text{rel}}$ but correspond to no attractor in either $\mathcal{X}_1$ or $\mathcal{X}_2$ alone. These shared attractors are the formal representation of what, in phenomenological terms, we call relational modes: the characteristic ways of being together that an intimate relation develops over time—the particular rhythm of shared attention, the characteristic register of shared affect, the habitual mode of joint response to contingent events.

A shared attractor is, formally, a region of $\mathcal{X}_{\text{rel}}$ toward which the relational dynamics tend from a range of initial conditions. Its basin of attraction—the set of initial states from which the system converges to the attractor—is a measure of the attractor's stability: a large basin indicates a robust relational mode that is resilient to perturbation, while a small basin indicates a fragile mode that is easily displaced by contingent events or internal fluctuations.

The development of a relational system can be described, in these terms, as the progressive emergence and stabilisation of shared attractors. Early in a relation, the coupled dynamics are highly sensitive to initial conditions and to contingent events: small perturbations produce large divergences, and the system has not yet developed the stable relational modes that characterise a mature intimate relation. Over time, through repeated co-evolutionary responses to contingent events, shared attractors emerge and their basins of attraction expand: the relational system becomes more stable, more predictable in its characteristic modes, more resilient to perturbation.

This developmental trajectory is the formal correlate of what is experienced, from within the relation, as the deepening of intimacy: the sense that the relation has developed its own characteristic ways of being together, that two people have learned each other in a way that makes their joint responses to contingent events feel natural and effortless, that the *between* has acquired a richness and depth that it did not have at the beginning. The emergence of shared attractors is the dynamical ground of this experienced deepening.

Shared attractors as relational achievements. The development of a relational system consists, in part, in the emergence and stabilisation of shared attractors in the relational phase space $\mathcal{X}_{\text{rel}}$. These attractors are genuine relational achievements: they do not exist in the state space of either individual and could not have been reached by either individual's dynamics alone. The deepening of intimacy, experienced phenomenologically as the growth of shared

modes and mutual attunement, corresponds, at the dynamical level, to the expansion of the basins of attraction of these shared attractors.

7.3 The Nesting of Individual and Relational Dynamics

A question that the dynamical account must address is the relationship between individual and relational dynamics: if the relational field has its own attractors, its own trajectory, its own degrees of freedom, what becomes of the individual? Is the individual dissolved into the relational field, their dynamics entirely subsumed by the coupled dynamics?

The answer, as anticipated in §4, is no—but the relationship is more subtle than simple parallel coexistence. The individual dynamics and the relational dynamics are *nested*: the individual dynamics are embedded within and shaped by the relational dynamics, but they retain a genuine autonomy within that embedding. This nesting can be made precise in the language of dynamical systems theory through the concept of *slaving*: in a coupled system with multiple timescales, the fast variables are “slaved” to the slow variables, in the sense that they rapidly relax to a manifold determined by the slow variables [34].

In the relational system, the relational degrees of freedom $\mathcal{R}$ —the accumulated history, the attractor landscape, the quality of attunement—change slowly relative to the rapid fluctuations of individual state. The individual dynamics $\mathcal{X}_1$ and $\mathcal{X}_2$ are, in this sense, slaved to the relational dynamics: they evolve rapidly within a landscape that is shaped and continuously reshaped by the slower evolution of the relational field. The individual dynamics are not eliminated by this nesting; they are the fast, fine-grained activity that occurs within the slow, coarse-grained structure of the relational field.

This nesting has several important consequences. First, it means that the individual retains genuine dynamical autonomy within the relational field: the fast fluctuations of individual state are not fully determined by the relational field, and the individual’s responses to contingent events retain an element of genuine particularity—a specificity of response that is not simply the average of the relational field’s response. Second, it means that the relational field is genuinely constraining: the individual dynamics do not unfold in a vacuum but within a landscape shaped by the relational history, and this landscape channels the individual dynamics in directions that are consistent with the relational attractor structure. Third, it means that the individual dynamics continuously feed back into the relational dynamics: the fast fluctuations of individual state are integrated, over time, into the slow evolution of the relational field, so that the individual’s particular responses to contingent events gradually reshape the relational landscape that constrains future responses.

7.4 The Time-Evolution of Coupling Strength

The coupling strength ϵ in the formal model of §6.2.1 is not a fixed parameter but a dynamic variable: it changes over time in response to the history of the relational system and to the contingent events that enter it. Understanding the time-evolution of coupling strength is essential for understanding the developmental trajectory of the relational system and the conditions under which relational happiness is possible.

Three mechanisms govern the time-evolution of coupling strength:

Baseline coupling through sustained co-presence. The ordinary daily co-presence of an intimate couple—the sharing of space, time, attention, and activity—produces a sustained baseline level of coupling that is the ground condition of relational co-evolution. This baseline coupling is not dramatic; it is the quiet, continuous mutual influence of two people who live together, whose rhythms of sleep and waking, eating and working, are attuned to each other’s. But it is real and dynamically significant: it maintains the relational system in a regime of moderate coupling from which it can respond to contingent events, and it gradually strengthens the shared attractors that constitute the relational landscape.

Event-driven coupling spikes. Contingent events—flowers on the path, shared griefs, moments of surprise or delight—produce transient spikes in coupling strength. In the formal model, a contingent event e occurring at time t_e produces a transient increase in ε :

$$\varepsilon(t) = \varepsilon_0 + \sum_k \Delta\varepsilon_k \cdot h(t - t_k) \quad (8)$$

where ε_0 is the baseline coupling, $\Delta\varepsilon_k$ is the magnitude of the coupling increase produced by event k , and $h(t)$ is a response kernel that captures the temporal profile of the coupling increase—typically a rapid rise followed by a slower decay. The happiness of the shared flower corresponds, in this model, to the transient state of enhanced coupling: the moment in which the relational system is operating in a regime of stronger-than-baseline coupling, producing more intense co-evolutionary dynamics and a richer shared attractor structure.

Long-term structural modification. Some contingent events—particularly those that are intense, unexpected, or deeply significant—produce not merely transient coupling increases but permanent structural modifications of the relational landscape. These events reshape the attractor structure of the relational field in ways that persist long after the event itself has passed: they create new shared attractors, expand the basins of existing attractors, or, in cases of relational crisis, contract or destroy attractor basins. This permanent structural modification is the dynamical correlate of what is experienced as a turning point in a relation—a moment after which the relation is, in some fundamental sense, different from what it was before.

7.5 Event-Driven Relational Dynamics: The SNN Analogy

The most powerful formal model for understanding event-driven structural modification in dynamical systems is the spiking neural network (SNN)—a class of computational models inspired by the biology of neural circuits, in which information is processed through discrete, temporally precise events (spikes) rather than through continuous rate codes [15, 23]. The SNN model provides a precise and biologically grounded analogy for the way in which contingent events trigger structural change in the relational system.

7.5.1 The SNN as a Biological Dynamical System

In a biological neural network, individual neurons integrate synaptic inputs over time and generate an action potential (spike) when their membrane potential exceeds a threshold. The spike propagates along the axon and triggers the release of neurotransmitters at synaptic terminals, which in turn influence the membrane potentials of postsynaptic neurons. The network’s

behaviour is thus determined by the pattern of spikes—their timing, their spatial distribution across the network, and the synaptic weights that determine the influence of each spike on its targets.

The crucial property of SNNs that motivates the relational analogy is *spike-timing dependent plasticity* (STDP): the synaptic weights of the network are modified by experience, and the direction and magnitude of this modification depend on the precise temporal relationship between pre- and postsynaptic spikes [3]. Specifically:

$$\Delta w_{ij} = \begin{cases} A_+ \exp\left(-\frac{t_{\text{post}} - t_{\text{pre}}}{\tau_+}\right) & \text{if } t_{\text{post}} > t_{\text{pre}} \\ -A_- \exp\left(-\frac{t_{\text{pre}} - t_{\text{post}}}{\tau_-}\right) & \text{if } t_{\text{post}} < t_{\text{pre}} \end{cases} \quad (9)$$

where Δw_{ij} is the change in synaptic weight from neuron j to neuron i , t_{pre} and t_{post} are the times of the pre- and postsynaptic spikes, A_+ and A_- are the magnitudes of potentiation and depression, and τ_+ and τ_- are the time constants of the learning windows. The key biological insight is that the causal order of spikes matters: if the presynaptic neuron fires before the postsynaptic neuron (which suggests that the presynaptic neuron contributed to causing the postsynaptic spike), the synapse is strengthened; if the order is reversed, the synapse is weakened.

STDP is Hebbian learning at millisecond precision: it implements, at the neural level, the principle that “neurons that fire together, wire together”—but with the crucial temporal specificity that distinguishes genuine causal coupling from mere coincidence.

7.5.2 The Relational Analogy

The SNN model maps onto the relational system with a precision that is, we believe, philosophically illuminating. The mapping proceeds as follows:

The two individuals as coupled neural populations. Each person in the relational system corresponds to a population of neurons (or, at the systems level, to a dynamical system with SNN-like properties): a complex, high-dimensional system that integrates inputs over time, generates event-like responses (emotional reactions, attentional shifts, affective spikes), and transmits these responses to the other system through the coupling of the relational field.

The relational field as the synaptic network. The coupling between the two individual systems is mediated by the relational field—the *between* with its accumulated history, its attunement, its shared attractor structure. This coupling corresponds, in the SNN analogy, to the synaptic network that connects the two neural populations: a structured set of connection weights that determines how the activity of one population influences the other, and that is itself modified by experience through the STDP-like mechanism of relational co-evolution.

Contingent events as relational spikes. A contingent event—the flower on the path, the unexpected news, the moment of shared laughter—corresponds to a spike: a discrete, temporally localised event that perturbs the state of the relational system and propagates through the coupling to affect both individuals. The spike is not a gradual influence but a sudden perturbation that crosses a threshold and initiates a rapid, discrete response.

The threshold character of relational spikes is philosophically significant. Not every contingent occurrence that takes place in the vicinity of the relational field enters that field as a

relational event; only those that are sufficiently salient, sufficiently surprising, or sufficiently resonant with the current state of the relational field cross the threshold of joint attention and become relational spikes. This threshold structure explains why the same environmental event—a flower on the same path—can enter the relational field as a vivid relational event on one occasion and pass unnoticed on another: the threshold depends on the current state of the relational system, including the quality of co-present attention and the degree of mutual attunement.

STDP as relational structural modification. The most important element of the analogy is the mapping between STDP and the long-term structural modification of the relational field by contingent events. In the SNN, STDP modifies synaptic weights in a way that depends on the precise temporal relationship between spikes: spikes that occur in causal sequence strengthen the connections between the neurons that generated them, while spikes that occur in anti-causal sequence weaken those connections. In the relational system, a contingent event that is shared in a timely fashion—that enters the relational field through an act of sharing that occurs close in time to the event itself—produces a stronger structural modification of the relational field than an event that is shared with delay.

This temporal dependence of relational STDP provides a formal account of the phenomenological observation noted in §5.1: the happiness of the shared flower depends crucially on the timeliness of the sharing. The flower that is shared immediately—“look!”—has a stronger co-evolutionary effect on the relational field than the flower that is mentioned later that evening: “oh, I saw the most beautiful flower today.” The later mention is still a form of sharing, and it still enters the relational field as a relational event; but the temporal gap between the event and the sharing reduces the magnitude of the relational STDP effect, producing a weaker structural modification of the relational landscape.

Formally, let t_e be the time of the contingent event and t_s be the time of the sharing act. The magnitude of the structural modification is:

$$\Delta\mathcal{R} \propto A \cdot \exp\left(-\frac{t_s - t_e}{\tau_{\text{rel}}}\right) \quad (10)$$

where τ_{rel} is the time constant of relational STDP—the characteristic timescale over which the sharing must occur for the contingent event to produce its maximal co-evolutionary effect. Events shared within this window produce strong structural modification; events shared outside it produce progressively weaker modification; events that are never shared produce no structural modification of the relational field, however significant they may be for the individual who experienced them.

Relational STDP and the timeliness of sharing. The structural modification of the relational field produced by a contingent event depends on the temporal proximity of the sharing act to the event itself. Events shared immediately produce stronger co-evolutionary effects—stronger modifications of the relational attractor landscape—than events shared with delay. This relational STDP principle provides a formal account of the phenomenological observation that the happiness of the shared flower depends on the timeliness of the sharing, and it implies a practical principle: the cultivation of relational happiness requires the development of habits of timely sharing, of the kind of co-present attentiveness that makes immediate

sharing possible.

7.5.3 The Threshold Mechanism and Relational Readiness

The SNN analogy also illuminates the threshold mechanism introduced in §5.3. In the SNN, a neuron generates a spike only when its membrane potential exceeds a threshold: subthreshold inputs accumulate but do not produce a discrete response, while suprathreshold inputs trigger the rapid, all-or-nothing response of the action potential. This threshold mechanism is essential to the SNN's information-processing properties: it ensures that only sufficiently strong or sufficiently coincident inputs produce a discrete response, filtering out weak or uncorrelated signals.

In the relational system, the threshold for the generation of a relational spike—for the entry of a contingent event into the relational field as a relational event—is determined by the current state of the relational field. A field in a state of high co-present attunement has a lower threshold: smaller and more subtle contingent events can enter the field as relational spikes. A field in a state of low attunement, distraction, or emotional disconnection has a higher threshold: only large, dramatic, or emotionally intense events can penetrate the threshold and enter the field as relational spikes.

This threshold modulation by relational state explains a familiar phenomenological observation: the same environment—the same path, the same flowers, the same afternoon light—feels more vivid, more alive, more generative of shared happiness when one is in a state of genuine co-present attunement with a beloved person than when one is distracted, preoccupied, or emotionally absent. The environment has not changed; the threshold has changed. The practices of relational attentiveness that §13 will discuss are, in part, practices of threshold modulation: they cultivate the state of co-present attunement that lowers the threshold for relational spikes and thereby increases the relational field's sensitivity to contingent events.

7.5.4 From Spikes to Trajectories: The Cumulative Structure of Relational Development

The SNN analogy, applied to the relational system, yields a picture of relational development as the cumulative effect of a lifetime of relational spikes. Each contingent event that enters the relational field as a relational spike produces a small structural modification of the relational landscape—a tiny shift in the attractor structure, a small change in the coupling weights, a modest expansion or contraction of a basin of attraction. Over the course of a shared life, these small modifications accumulate into the rich, complex relational landscape of a mature intimate relation: its characteristic modes of joint attention, its habitual registers of shared affect, its resilience in the face of difficulty, its capacity for the deepest forms of co-present happiness.

This cumulative structure is the dynamical correlate of what Paper IX described in terms of geometric phase and holonomy [37]: the spiral structure of relational development, in which each traversal of the relational cycle returns not to the starting point but to a new point carrying the accumulated phase of the journey. The relational STDP mechanism provides the micro-level account of how this accumulation occurs: each shared contingent event produces a small

modification of the relational landscape, and the integral of these modifications over time is the holonomy of the relational trajectory—the total accumulated phase that constitutes the spiral of a shared life.

The happiness that arises in the mature intimate relation—the deep, quiet happiness of two people who have shared a long history of contingent events, who have developed the shared attractor landscape of a life together, whose coupling is strong and whose threshold is low—is not the same as the happiness of the early relation, with its dramatic spikes and its rapidly changing landscape. It is a happiness of depth rather than of intensity: the happiness of a relational system that has accumulated, through the patient work of a lifetime of sharing, a rich and stable landscape of shared attractors, a deep and resilient coupling, a *between* that is dense with the history of everything that has been received together.

The cumulative structure of relational happiness. The happiness of a mature intimate relation is not the sum of individual moments of shared happiness but the cumulative product of a lifetime of relational STDP: the rich attractor landscape that emerges from the structural modifications produced by a lifetime of shared contingent events. This cumulative happiness has a different character from the happiness of individual shared moments—it is quieter, deeper, more stable, and more resilient—and it constitutes the fullest realisation of what the GRB framework calls relational *eudaimonia*: the flourishing of a relational system that has developed, through sustained co-evolution, the depth and stability of a genuinely shared life.

With this formal account of relational developmental dynamics in place, we are ready to examine how these dynamics can be studied empirically. The next section proposes a research methodology for testing the claims of the GRB account—a methodology that must be as attentive to the distinctive ethical challenges of relational research as it is to the formal requirements of empirical science.

8 Empirical Methodology: Towards a Science of Relational Co-evolution

The preceding sections have developed the GRB account of relational happiness at the philosophical, formal, and neuroscientific levels. But a multi-level account of this kind carries an obligation that purely philosophical accounts can avoid: it must be answerable to empirical evidence. If relational co-evolution is a real, multi-level phenomenon—if the shared flower genuinely produces inter-brain synchrony, physiological co-regulation, and structural modification of the relational attractor landscape—then these claims must be testable, and the conditions under which they would be falsified must be specifiable.

This section proposes an empirical research programme for testing the central claims of the GRB account. The programme is organised around two primary verification targets: the descent of the contingent event into the relational field as a genuinely relational event (rather than two parallel individual events), and the co-evolutionary dynamics that follow from this descent (including the structural modification predicted by the relational STDP model). We then address the distinctive ethical challenges of relational research and the biases that must be carefully managed if the research is to yield reliable conclusions.

8.1 Verification Target One: The Descent of the Contingent Event

The first and most fundamental empirical claim of the GRB account is that a contingent event, when shared between two people in a state of intimate co-presence, enters the relational field as a genuinely relational event—an event that is processed differently, and that produces different neural and physiological effects, from the same event experienced by two individuals independently. This claim can be made empirically precise and subjected to experimental test.

8.1.1 Hyperscanning Paradigms

The primary tool for testing this claim is dyadic hyperscanning: the simultaneous measurement of neural activity in two individuals while they engage in a shared experience [9, 16]. The core experimental design is a within-dyad comparison between two conditions:

- **Joint condition:** Two partners experience a contingent stimulus together—in co-present, face-to-face, or side-by-side interaction—and are free to share their response through gaze, touch, or verbal communication.
- **Independent condition:** The same two partners experience the same contingent stimulus separately, without knowledge that the other is also experiencing it, and without the possibility of sharing.

The prediction of the GRB account is that the joint condition will produce significantly greater inter-brain synchrony than the independent condition, and that this synchrony will be specifically associated with the act of sharing rather than with the co-occurrence of the stimulus. This prediction can be tested at multiple neural levels:

EEG hyperscanning measures inter-brain phase synchrony (IBS) in specific frequency bands—theta, alpha, beta, and gamma—during the joint and independent conditions. The GRB account predicts that the act of sharing will produce a transient spike in IBS, corresponding to the relational spike of the formal model, and that this IBS spike will be greater in dyads with higher relational quality (measured by established instruments such as the Dyadic Adjustment Scale or the Experiences in Close Relationships questionnaire) than in dyads with lower relational quality. The temporal precision of EEG allows the detection of IBS dynamics at the millisecond timescale, enabling the testing of the relational STDP prediction: that IBS spikes produced by timely sharing (sharing that occurs close in time to the contingent event) will be larger and more sustained than IBS spikes produced by delayed sharing.

MEG hyperscanning provides complementary spatial information, identifying the cortical networks—particularly the mentalising network (medial prefrontal cortex, temporoparietal junction, posterior superior temporal sulcus) and the mirror system (inferior frontal gyrus, inferior parietal lobule)—that are specifically engaged during the joint condition relative to the independent condition. The GRB account predicts that the mentalising network will be more strongly engaged during the act of sharing than during the independent processing of the same stimulus, reflecting the relational field's constitution of the shared object.

fMRI hyperscanning, while limited in temporal resolution, provides the spatial precision to identify subcortical and deep cortical structures—amygdala, anterior insula, anterior cingulate cortex—that are associated with shared affect and relational bonding. The GRB account

predicts that the neural correlates of the shared emotional response will be distributed differently in the joint and independent conditions: more bilateral, more symmetric, and more strongly correlated between partners in the joint condition, reflecting the relational character of the shared event.

fNIRS hyperscanning is particularly important for the ecological validity of the research programme, since it can be deployed in naturalistic environments. A field study using fNIRS hyperscanning could test the GRB account in conditions that more closely approximate the actual phenomenology of shared contingent events: couples walking in a natural environment, encountering flowers, birds, or other contingent stimuli, with fNIRS measuring inter-brain synchrony in real time. This naturalistic paradigm avoids the artificial constraints of the laboratory while retaining the rigour of physiological measurement.

8.1.2 Physiological Synchrony Measurement

Complementing the neural measures, physiological synchrony measurements provide additional evidence for the relational character of the shared event at the bodily level. Heart rate variability (HRV) synchrony, skin conductance response (SCR) cross-correlation, and respiratory entrainment between partners during the joint versus independent conditions test the prediction that the shared event produces greater physiological coupling than the independent event.

Of particular interest is the *temporal dynamics* of physiological synchrony: the GRB account predicts that physiological synchrony will spike at the moment of sharing (corresponding to the relational spike of the formal model) and then decay at a rate that reflects the coupling time constant τ_{rel} of the relational system. Measuring the rise and decay profile of physiological synchrony across dyads with different levels of relational depth allows an empirical estimate of τ_{rel} —a key parameter of the formal model.

8.1.3 Behavioural Coding

Behavioural measures complement the neural and physiological measures by providing evidence for joint attention—the threshold condition for the relational spike identified in §5.3. Eye-tracking in both partners allows the measurement of gaze synchrony: the degree to which the two partners' gaze trajectories are aligned during the shared experience. Micro-expression coding from high-speed video captures the rapid affective responses that constitute embodied resonance. And the temporal structure of the sharing act itself—the latency between the contingent event and the sharing, the mode of sharing (gaze, touch, vocalisation), and the partner's response to the sharing—can be coded from video and used to test the relational STDP prediction about the timeliness of sharing.

8.2 Verification Target Two: Co-evolutionary Dynamics and Structural Modification

The second verification target is more demanding and requires longitudinal methodology: the claim that repeated shared contingent events produce cumulative structural modification of the relational attractor landscape, consistent with the relational STDP model.

8.2.1 Longitudinal Dyadic Studies

A longitudinal cohort study tracking intimate dyads over an extended period—ideally three to five years—would allow the measurement of changes in relational quality, inter-brain synchrony, and physiological co-regulation as a function of the frequency and quality of shared contingent events. The key predictions of the GRB account are:

1. Dyads with higher rates of timely sharing of contingent events will show greater increases in inter-brain synchrony, physiological co-regulation, and relational quality over the longitudinal period, consistent with the cumulative structural modification predicted by the relational STDP model.
2. The relationship between shared contingent events and relational quality will be mediated by inter-brain synchrony: the neural co-evolution triggered by shared events will be the mechanism through which events translate into relational structural modification.
3. The time constant τ_{rel} estimated from the synchrony dynamics in Verification Target One will predict the rate of structural modification in the longitudinal study: dyads for whom τ_{rel} is larger will show slower accumulation of relational modifications and will require more sustained sharing over longer periods to achieve equivalent structural change.

8.2.2 Coupling-Model Fitting

The formal model of relational dynamics developed in §7—the coupled dynamical systems model with STDP-like structural modification—can be fit to longitudinal dyadic data using state-space modelling techniques. The model parameters (baseline coupling ε_0 , event-driven coupling increment $\Delta\varepsilon$, STDP time constant τ_{rel} , attractor landscape parameters) can be estimated from the data, and the model’s predictions for future relational trajectories can be tested against observed outcomes.

A key test of the model is whether the estimated attractor landscape predicts relational resilience: do dyads with more stable shared attractors (wider basins of attraction) show greater resilience to relational crises, consistent with the formal account of attractor stability? And do dyads that undergo relational crises show the predicted contraction of attractor basins, followed by recovery if the crisis is successfully navigated?

8.3 Research Ethics

Research on intimate relational dynamics raises distinctive ethical challenges that are not adequately addressed by the standard frameworks of individual research ethics. These challenges must be confronted directly, not merely noted.

Relational informed consent. Standard informed consent procedures treat each individual as an independent research participant who can consent to or withdraw from the research independently. But intimate relational research treats the dyad as the unit of analysis, and this creates ethical complications that individual consent does not address. If one partner withdraws consent mid-study, the data of the other partner may be compromised or rendered uninterpretable, and the withdrawal of one partner may have consequences for the other’s continued participation. A relational ethics of research consent would require dyadic consent

procedures—procedures in which both partners consent jointly, and in which the implications of individual withdrawal for the partner’s data and participation are explicitly discussed and agreed upon in advance.

Moreover, the act of participation in relational research is itself a relational event: it may affect the relational dynamics of the dyad in ways that are not predictable in advance. Couples who participate in research on their shared emotional responses, their physiological synchrony, or their attractor landscapes are gaining a kind of reflexive knowledge of their relational dynamics that may itself modify those dynamics. This observer effect—the modification of the relational system by the act of observing it—is not merely a methodological nuisance but an ethical concern: participants have a right to be informed of the possibility that participation may change the very relational dynamics they are there to observe.

Protection of intimate data. Neural, physiological, and behavioural data collected during intimate relational interactions are among the most sensitive categories of personal data that can be collected: they capture the private emotional lives of individuals at moments of genuine vulnerability and genuine intimacy. The storage, analysis, and potential disclosure of such data must be governed by protocols that go beyond standard data protection requirements, including strict access controls, anonymisation procedures that are robust against re-identification, and explicit commitments about the conditions under which data may be shared with other researchers or used for purposes not specified in the original consent.

The intervention effect. The act of measuring relational dynamics may alter those dynamics—not only through the reflexive knowledge effect noted above, but through the more direct effects of the measurement apparatus itself. Wearing EEG or fNIRS headsets in a naturalistic environment is not a neutral act; it changes the phenomenology of the shared experience and may thereby change the very neural and physiological dynamics being measured. Research designs should include explicit assessment of the intervention effect, comparing the measured dynamics in wired and unwired conditions and modelling the difference as a nuisance variable.

8.4 Potential Biases

A research programme of this kind is subject to several sources of bias that must be acknowledged and managed.

Selection bias. Couples who are willing to participate in dyadic neuroimaging research are not a random sample of intimate dyads: they are likely to be more educated, more reflective about their relational dynamics, more comfortable with scientific procedures, and possibly more securely attached than the general population of intimate couples. The results of studies conducted with such samples may not generalise to the full range of intimate relational forms, and this limitation must be explicitly acknowledged in the reporting of results.

Cultural bias. The phenomenology of shared contingent events, the forms of sharing, and the cultural meaning of co-presence are not universal but culturally specific. A research programme conducted primarily with Western, educated, industrialised, rich, and democratic (WEIRD) participants [18] will capture a particular cultural instantiation of relational co-evolution, not its universal form. The cross-cultural chapter of this paper (§12) identifies several non-Western frameworks—Japanese *ma* and *en*, Confucian relational ethics, Ubuntu

philosophy—that suggest different phenomenological structures for shared contingent experience; a fully adequate empirical research programme would need to test the GRB account across these cultural contexts.

The laboratory effect. The artificial constraints of the laboratory environment—the scanner bore, the wired headset, the experimenter’s instructions, the knowledge of being observed—fundamentally alter the phenomenology of the shared experience and may thereby alter the very dynamics being studied. A flower encountered on a laboratory monitor, presented by an experimenter as a stimulus, is not the same relational event as a flower encountered on a path in the course of a shared walk. The ecological validity of laboratory paradigms for studying relational co-evolution is genuinely limited, and the research programme must invest in naturalistic methodologies—fNIRS in the field, experience sampling methods, longitudinal diary studies—that complement the high-control, low-validity laboratory paradigms.

The reductionist trap. The most subtle and philosophically significant bias in a research programme of this kind is the temptation to treat the neural and physiological measures as the *explanation* of relational happiness rather than as its *correlates*. Inter-brain synchrony is not relational happiness; it is the neural correlate of relational happiness, measured at a particular level of description. The multi-level framework of the GRB account is precisely designed to resist this reductionist temptation: it insists that the formal, the neural, the physiological, and the phenomenological are genuinely distinct levels of description, none of which is reducible to the others, and that a complete account of relational happiness requires all of them. Empirical researchers working within this programme must resist the temptation—always present in neuroscience—to treat the measurement level as the explanation level, and must maintain the multi-level commitments of the framework throughout the interpretation of their results.

The empirical programme as a relational ethics. The empirical research programme proposed here is not merely a methodological exercise but an enactment of relational ethics. Research on intimate relational dynamics that treats the dyad rather than the individual as the unit of analysis, that develops consent procedures adequate to the relational character of the subject matter, and that resists the reductionist temptation to collapse the phenomenon to its neural correlates, is itself an instance of the epistemic hospitality that [Paper XIII](#) identified as the condition for genuine understanding across irreducibly different perspectives [38]. The researcher who studies intimate relations with this kind of methodological care is, in a modest way, practising the relational attentiveness that the theory recommends.

9 Phenomenology of Relational Happiness

The preceding sections have developed the GRB account of relational happiness from the outside in: from the ontological framework, through the formal dynamical model, to the empirical research programme. Before we proceed to the formal eudaimonistic reconstruction of §10, we must pause and attend to the phenomenon from the inside—to the quality of relational happiness as it presents itself to those who experience it, in its own phenomenological structure, prior to any theoretical reduction or formal representation.

This section is deliberately different in register from those that precede it. It does not advance formal claims or cite empirical evidence. It attends, carefully and at length, to what the shared flower actually feels like—to the texture, the structure, and the distinctive character of the happiness that arises in the relational field. Phenomenological description of this kind is not merely rhetorical; it is philosophically necessary. A theory of happiness that cannot recognise what it is theorising about—that cannot show that its formal apparatus captures the phenomenon as it is actually lived—is a theory that has lost its object. The phenomenological section is the test of the theory’s fidelity to the experience it claims to explain.

9.1 The Quality of Relational Happiness: What It Is Not

The best way to approach the quality of relational happiness is to begin by distinguishing it from neighbouring phenomena that share some of its surface features but differ from it in essential ways. This *via negativa* is not mere rhetorical caution; it is a precise philosophical move, because the neighbouring phenomena are precisely those that the individualist theories of happiness have described, and the differences are precisely where the individualist theories fall short.

It is not pleasure. The happiness of the shared flower is not the pleasure of a pleasant sensory experience. Pleasure is a property of a sensory state—it is what it is like to have a pleasant taste, or a pleasant sensation of warmth, or the mild visual pleasure of a pretty object. The happiness of the shared flower is not like this: it does not have the simple, immediate quality of sensory pleasure, and it does not reside in the sensory properties of the flower. The flower may be pretty, but a pretty flower seen alone does not produce what is produced when the flower is shared; and two people can share something quite plain—a bird’s call, a particular quality of light, an unexpected smell—and produce the same happiness that the flower produces. The shared happiness is not in the sensory properties of the shared object but in the sharing itself.

It is not the satisfaction of desire. Desire is directed toward an absent object: its satisfaction is the achievement of what was previously lacking. But the happiness of the shared flower is not the satisfaction of anything that was previously lacking; it arises from the fullness of co-present attention, not from the gratification of a prior want. The person who notices the flower and shares it with their beloved is not satisfying a desire; they are, as it were, offering something that has appeared unexpectedly, something that neither sought and both receive.

It is not flow. As argued in §3.3, flow is the happiness of full absorption in a challenging activity, characterised by the matching of skill and challenge, the recession of self-consciousness, and the distortion of time. The happiness of the shared flower has none of these features: there is no challenge, no skill being exercised, no task being performed. If anything, the happiness of the shared flower involves a heightening rather than a recession of self-consciousness—a heightened awareness not of the self in isolation but of the self as present to and with the other. And the time distortion of the shared flower is different from that of flow: not the loss of time-awareness but its transformation into a quality of presence, a sense that *this moment* has a fullness and completeness that ordinary time does not.

It is not pride or achievement. The happiness of the shared flower is not the happiness of having done something, accomplished something, or become something. Neither person

has done anything to merit the flower; it is given, contingently, by the world. The happiness is, in this sense, a form of gratitude rather than of pride: gratitude not directed at anyone in particular—the flower was not placed there for them—but a kind of ontological gratitude, an openness to the gift of what is simply there.

9.2 The Positive Structure of Relational Happiness

Having distinguished relational happiness from its neighbours, we can now describe its positive structure—the features that are distinctively its own and that the individualist theories systematically fail to capture.

It arises from the between, not from either person. The most fundamental phenomenological feature of relational happiness is that it does not feel as though it comes from within oneself. It arises—there is no better word—*between* the two people, in the space that their co-presence has constituted. The person who notices the flower and shares it feels, at the moment of sharing, not “I am happy because I see this flower” but something more like “something is happening between us that is making both of us happy.” The happiness has a quality of exteriority relative to either person: it comes from outside each individual, from the relational field that both participate in but neither controls.

This felt exteriority is not alienation. It is not the experience of being moved by an external force that one does not understand or endorse. It is, rather, the experience of receiving something that has been generated by the relational field—something that one has participated in producing but that exceeds what either person could have produced alone. The happiness of the shared flower is, in this sense, a form of relational grace: something given to both by the relational field they have constituted together.

It has the character of resonance. When the flower is shared and the beloved responds—when the response makes clear that both have been touched by the same contingent beauty—there is a moment of resonance: a sense that something in the other is vibrating at the same frequency as something in oneself, that the two dynamical systems are, for this moment, in alignment. This resonance is not the fusion of two identities into one; it is more like the overtone that arises when two instruments play the same note: both retain their distinct timbre, their individual character, but something new arises from their sounding together that neither produces alone.

The phenomenology of resonance is the felt correlate of what the formal framework describes as synchronisation: the transient alignment of the two dynamical systems’ rhythms produced by the shared contingent event. But the formal description, however precise, does not capture the quality of the experience—the sense of mutual recognition, of being known and knowing, of the other’s presence as a presence that completes rather than threatens. The resonance is, in this sense, a form of relational recognition: the experience of being seen by the other, not as an object of their gaze but as a co-subject of a shared experience, a co-presence in the *between*.

It involves a particular quality of time. The shared flower alters the quality of time. Ordinary time is sequential and forward-directed: one moment leads to the next, the present is perpetually dissolving into the past and being replaced by the future. The time of the shared flower is different: it is a time that has been deepened, given a third dimension of co-present

fullness that ordinary sequential time lacks. The moment of sharing is not merely a point in the sequence of moments; it is a moment that has been constituted as a *moment*, a unit of shared presence that has its own integrity and completeness.

This temporal deepening is related to, but distinct from, the time distortion of flow. In flow, time passes unnoticed because attention is fully absorbed in the task; the distortion is a forgetting of time. In the shared flower, time does not pass unnoticed; it is noticed differently—as something that has acquired a quality of presence, a fullness, that makes the present moment feel both complete in itself and continuous with the accumulated history of shared moments that have constituted the relational field. The shared flower is, in this sense, a temporal event in the relational field: it both belongs to the present moment and carries the weight of the entire history of sharing that has made this moment possible.

It is irreversibly constitutive. One of the most striking phenomenological features of relational happiness is that it changes both people in a way that cannot be undone. The flower, once shared, becomes part of the relational field: it joins the accumulated history of shared moments that constitute the *between*, and neither person is quite the same as they were before the sharing. This is the phenomenological correlate of the relational STDP modification described in §7: the structural change produced by the shared event is permanent, even if its effects are subtle. The couple who shared the flower on the path carry that sharing with them, not necessarily as an explicit memory but as a slight modification of the relational attractor landscape—a tiny increment of the holonomy that constitutes their shared life.

9.3 Relational Flow: The Pure Form of Co-present Happiness

Among the forms of relational happiness, there is one that deserves special attention because it most directly challenges the individualist account and most clearly reveals the distinctive structure of relational co-evolution: the form that we call relational flow, of which the paradigm case is two people sitting together, doing nothing, in the wordless co-presence of deep intimacy.

Relational flow is the state in which the relational field is, for a sustained period, in a condition of deep co-evolutionary resonance—a condition in which the coupling is strong, the attunement is deep, the threshold for relational spikes is low, and the two dynamical systems are moving through the relational phase space in a harmonious, mutually entrained trajectory. It is called flow by analogy with Csikszentmihalyi's concept, but it differs from individual flow in every essential feature: there is no task, no challenge, no skill-matching, no individual absorption. There is only co-presence—the sustained, quiet, mutually held presence of two people in the relational field they have constituted.

The paradigm case—two people sitting together, doing nothing, deeply happy—is philosophically decisive because it is precisely the case that the individualist account of happiness cannot accommodate. On Csikszentmihalyi's account, there is no flow here; on Aristotle's account, there is no virtuous activity; on Maslow's account, there is no self-actualisation; on Seligman's account, there is minimal positive emotion (no excitement, no elation), minimal engagement (no task), and the only PERMA component clearly present is Relationships. And yet anyone who has experienced this form of happiness knows that it is one of the deepest and most complete forms of human flourishing—not a thin or impoverished happiness but a rich and full one, the happiness of a relational field that is in its own proper condition, doing what

it does best.

Relational flow as paradigm. The paradigm case of relational flow—two people sitting together, doing nothing, in the wordless co-presence of deep intimacy—is the purest and most philosophically decisive form of relational happiness. It is decisive because it is precisely the case that all individualist theories of happiness systematically cannot accommodate, and because it reveals, in the clearest possible form, the distinctive features of relational happiness: its arising from the between, its character of resonance, its particular quality of time, and its irreversible constitutive effect on the relational field.

What is happening, dynamically, in the state of relational flow? The two people are not doing nothing, in any dynamically meaningful sense: they are maintaining, through sustained co-present attention, the conditions for deep coupling—the joint attentional orientation, the embodied resonance, the physiological co-regulation—that keep the relational system in a regime of strong coupling and low threshold. The “doing nothing” of relational flow is, in this sense, a highly active state at the level of the relational field: it is the active maintenance of the conditions for co-evolutionary resonance, the continuous work of keeping the *between* alive and receptive.

This is why relational flow is not the absence of activity but a particular form of activity—relational activity, activity at the level of the field rather than at the level of either individual. And this is why it requires cultivation: the capacity for sustained relational flow is not given by nature but developed through the practices of relational attentiveness that §13 will discuss. Two people who have not developed the capacity for sustained co-present attentiveness cannot achieve relational flow; they will find the silence uncomfortable, the lack of task anxiety-provoking, the wordlessness alienating. Relational flow is an achievement of the relational field, not a default state; it requires the development of the relational capacities that make it possible.

9.4 The Temporality of Relational Happiness: Depth vs. Intensity

A final phenomenological observation concerns the temporal character of relational happiness as it evolves over the course of a shared life. The happiness of the early relation is characterised by intensity: the dramatic spikes of the first shared contingent events, the rapid modifications of the relational landscape, the sense of discovery and novelty that accompanies the constitution of a new *between*. This intensity is real and valuable; it is the happiness of a relational system whose coupling is rapidly increasing, whose attractor landscape is rapidly forming, whose every shared event produces a large and vivid structural modification.

But intensity is not the highest form of relational happiness. The happiness of the mature relation—the happiness of two people who have shared a long history of contingent events, who have developed the deep shared attractor landscape of a life together—is characterised not by intensity but by *depth*: a quiet, stable, resonant happiness that is less dramatic than the early relation’s intensity but more complete, more resilient, and more fully expressive of what relational flourishing can be.

The difference between intensity and depth is the difference between the first shared flower and the thousandth: the first produces a large relational STDP modification, a vivid spike of inter-brain synchrony, a memorable moment of shared discovery. The thousandth produces a smaller individual modification, a quieter spike of synchrony—but it occurs within a relational field that has been shaped by the cumulative effect of the previous nine hundred and ninety-nine, and it is received by a *between* that has been constituted, through all those previous sharings, into something of great depth and resilience. The happiness of the thousandth flower is the happiness of a relational field that has accumulated, through a lifetime of shared contingent events, the holonomy of a genuinely shared life.

This distinction between intensity and depth has practical implications that §13 will explore. But its phenomenological significance is already clear: it means that the highest form of relational happiness is not the excitement of new discovery but the quiet resonance of deep co-presence—the happiness, as one might say, of a *between* that has become a home.

Depth as the highest form of relational happiness. The highest form of relational happiness is not intensity—the dramatic spikes of early relational co-evolution—but depth: the quiet, stable, resonant happiness of a mature relational field that has accumulated, through a lifetime of shared contingent events, the holonomy of a genuinely shared life. Depth is not the diminution of intensity but its transformation: the accumulated product of all the intensities that have entered the relational field and been integrated into its attractor landscape, now present as the quiet completeness of a *between* that has become a home.

10 Eudaimonistic Reconstruction: Happiness as Emergent Signal of Relational Co-evolution

The phenomenological description of the preceding section has shown us, from the inside, what relational happiness is like: how it arises from the between, how it has the character of resonance, how it transforms the quality of time, and how it differs in its deepest form from the intensity of early relational encounter. We are now in a position to give this phenomenological description its theoretical articulation: to state, precisely and at the appropriate level of abstraction, what relational happiness *is*—what kind of thing it is, where it is located, what generates it, and what its relationship is to the individual flourishing that the eudaimonist tradition has described.

This section executes the eudaimonistic reconstruction in three movements. The first states the central claim of the GRB account of happiness—happiness as the emergent signal of relational co-evolution—and defends it against obvious objections. The second locates relational happiness within the three registers of the GRB framework (imaginary, symbolic, real), arguing that the deepest form of relational happiness is a phenomenon of the real register. The third addresses the relationship between relational and individual flourishing, arguing that the GRB account does not eliminate individual flourishing but reconceives it as a moment within the larger structure of relational *eudaimonia*.

10.1 The Central Claim: Happiness as Emergent Signal

The central claim of this paper's eudaimonistic reconstruction can be stated in a single sentence: **relational happiness is the emergent signal of the relational field's co-evolutionary activity**. Each element of this formulation requires unpacking.

Emergent. The happiness is emergent in the technical sense: it is a property of the relational field that cannot be reduced to the properties of the individual systems that compose the field, and that arises at the level of the field through the dynamical interactions of those systems. It is not the sum of two individual happinesses; it is not the average; it is not any function of the individual happinesses that could be computed from knowledge of each individual's state alone. It is a new property, arising at a new level of organisation, irreducible to what exists at the level below.

The emergent character of relational happiness explains why it *feels* as though it comes from the between: because it does. The felt quality of exteriority—the sense that the happiness is coming from somewhere that is not quite within oneself—is an accurate perception of an emergent property. The individual is perceiving, from within the relational field, a property of the field that is not a property of themselves individually. This perception is not an illusion; it is the most accurate perception available of what is actually happening.

Signal. The happiness is a signal—a piece of information—that the relational field generates and transmits to the individuals who participate in it. What information does it carry? It carries information about the state of the relational field: specifically, it signals that the field is currently engaged in productive co-evolutionary activity—that the coupling is strong, that the shared attractor landscape is being traversed in a generative way, that the relational STDP mechanism is producing structural modifications that deepen and enrich the field. The happiness is, in this sense, the relational field's way of telling its participants that it is doing well—that it is flourishing, in its own relational mode of flourishing.

This signal character of happiness is not an ad hoc addition to the theory but a consequence of its dynamical foundations. In any complex system with multiple levels of organisation, the higher level generates signals that propagate down to the lower level and modify the behaviour of the lower-level components. The signals that a healthy biological organ sends to the organism of which it is a part—the felt signals of comfort, warmth, satiety, pleasure—are the organ's way of communicating to the organism that it is functioning well and that the organism's behaviour is supporting its continued functioning. The relational happiness signal is the relational field's analogue of these biological signals: it communicates to the individual participants that the field is functioning well and that their shared behaviour is supporting its continued co-evolution.

Of the relational field's co-evolutionary activity. The happiness signals a specific kind of relational activity: co-evolution. It is not the signal of any pleasant state of the relational field but of the state in which the field is actively engaged in the co-evolutionary process—in the joint processing of contingent events, the dynamic modification of the shared attractor landscape, the accumulation of relational holonomy. A relational field that is stagnant—that has ceased to co-evolve, that is no longer responsive to contingent events, that has hardened into fixed patterns that no longer develop—does not generate the happiness signal even if it is comfortable, stable, and conflict-free. The happiness requires co-evolution, not mere coexistence.

Happiness as emergent signal of co-evolution. Relational happiness is the emergent signal that the relational field generates when it is engaged in productive co-evolutionary activity. It is emergent because it is a property of the field irreducible to the properties of either individual; it is a signal because it carries information about the field's co-evolutionary state to the individuals who participate in it; and it is specifically the signal of co-evolutionary activity, not of any merely comfortable or stable relational state. The felt happiness of the shared flower is the individual's reception of this signal—the way in which the relational field's co-evolutionary activity presents itself to the individuals who constitute it.

10.2 Objections and Replies

The central claim will face several objections that must be addressed before proceeding.

Objection 1: The signal account makes happiness too cognitive. One might object that describing happiness as a signal that carries information makes it sound too cognitive, too much like a piece of data to be processed, and not enough like the warm, immediate, felt quality of actual happiness. Happiness is not the reception of a signal; it is a lived experience with its own irreducible quality.

Reply: The signal account does not deny the irreducible felt quality of happiness; it describes the functional role of that quality within the relational system. Just as the felt quality of pain is not reduced by the functional description of pain as a signal that tissue damage has occurred—the phenomenology of pain remains exactly what it is—the felt quality of relational happiness is not reduced by the functional description of happiness as a signal of co-evolutionary activity. The phenomenological description of the previous section and the functional description of the present section are complementary accounts of the same phenomenon at different levels of description. Neither reduces to the other, and both are necessary for a complete account.

Objection 2: Not all shared happiness involves co-evolution. One might object that there are forms of shared happiness—two strangers who laugh together at the same joke, or two people who happen to notice the same beautiful thing simultaneously—that are not instances of co-evolutionary dynamics in any interesting sense. The strangers are not a coupled dynamical system; they do not have a shared attractor landscape; their interaction does not produce structural modifications of a relational field. And yet they are happy, together, in a way that seems genuinely relational.

Reply: The GRB account does not deny that there are weaker and stronger forms of relational happiness, or that the happiness of strangers who laugh together is a genuine phenomenon. It claims that the *paradigm* of relational happiness—the form that most fully instantiates the concept and that the eudaimonist tradition has consistently failed to account for—is the happiness of an intimate relational field engaged in deep co-evolutionary activity. The happiness of strangers is a real but thin instance of relational happiness: it involves minimal coupling, no shared attractor landscape, and no structural modification. The happiness of intimate partners sharing a flower is a rich instance: it involves strong coupling, a deep shared attractor landscape, and significant structural modification. The theory is not falsified by the

existence of thin instances; it is confirmed by the existence of thick ones and by the fact that the thick instances are precisely where the individualist theories most conspicuously fail.

Objection 3: The happiness might be explained by the individual's pleasure at the other's pleasure. A more subtle objection holds that the happiness of the shared flower can be fully explained at the individual level by the following mechanism: person A is pleased by the flower, person B notices person A's pleasure and is pleased by it, and person A notices person B's pleasure at A's pleasure and is further pleased, and so on in a cascade of mutual positive affect. On this account, the happiness is genuinely social in origin—it involves the other's response—but it remains individual in structure: each person's happiness is caused by the other's, but each is still an individual happiness caused by an external stimulus.

Reply: This objection correctly identifies a mechanism that is genuinely present in the shared flower—the mutual positive affect cascade is real and empirically well-documented. But it fails to account for the emergent character of the happiness: the fact that the cascade produces something that is not the sum of the individual happinesses but a qualitatively different phenomenon. The mutual affect cascade is the mechanism through which the relational field's co-evolutionary activity is initiated; it is not itself the relational happiness but one of the processes through which relational happiness is generated. More fundamentally, the objection presupposes the individualist ontology that the GRB framework rejects: it assumes that the unit of analysis is the individual happiness, and that the relational happiness is composed of individual happinesses in mutual causal relation. The GRB account holds, on the contrary, that the relational happiness is primary—that it is the happiness of the field, and that the individual's experience of it is the field's happiness perceived from a particular constituted perspective.

10.3 The Three Registers of Relational Happiness

The GRB framework's three registers—imaginary, symbolic, and real—provide a further dimension of the reconstruction. Relational happiness can occur in any of the three registers, and the form it takes in each register is distinct. A complete account of relational *eudaimonia* must map these distinctions.

Imaginary register happiness is the happiness of identification and idealisation: the happiness of seeing oneself reflected in the beloved's eyes as the person one wishes to be, or of seeing the beloved as the idealised object of one's desire. This is the happiness of the early relation, of falling in love, of the mirror stage of intimate encounter. It is real and intense—the dramatic spikes of early relational co-evolution correspond, in part, to the powerful imaginary investments of idealisation—but it is unstable: the idealised image is always threatened by the reality of the other's irreducible particularity, and the happiness built on imaginary identification is always liable to collapse when the ideal is disappointed. The happiness of the shared flower, when it occurs primarily in the imaginary register, is the happiness of sharing with the idealised beloved—the beauty of the flower is magnified by the imaginary investment in the person with whom it is shared.

Symbolic register happiness is the happiness of recognition and acknowledgment: the happiness of having one's existence, one's contributions, and one's significance acknowledged by the other within the framework of the shared symbolic order—the language, the rituals,

the social forms through which intimate relations are constituted and sustained. The gift, the anniversary, the declaration of love, the shared joke that belongs to the couple's private language: these are sources of symbolic register happiness, and they are real and important sources of relational flourishing. But they share the limitation of all symbolic goods: they can be forged, performed, or deployed without genuine relational co-evolution, and the happiness they produce is accordingly shallower and more fragile than the happiness of the real register. **Paper XIII's** analysis of forged trust—the trust produced by the appearance of genuine self-investment without its substance—is directly relevant here: forged symbolic happiness is the appearance of relational co-evolution without its reality [38].

Real register happiness is the deepest and most stable form of relational happiness: the happiness of an encounter with the irreducible particularity of the other and of the shared moment, an encounter that resists full symbolisation and exceeds the imaginary investments that surround it. The happiness of the shared flower, at its deepest, is a happiness of the real register: it is the happiness of this particular flower, shared with this particular person, at this particular moment in the history of this particular relational field—a happiness that cannot be captured in any general description, that cannot be fully communicated, that leaves a remainder that exceeds all symbolic elaboration. The real register happiness is the happiness of genuine co-presence: the happiness of being with the other as they actually are, not as they appear in the imaginary or as they are constituted in the symbolic.

The priority of real register happiness. Among the three registers of relational happiness, the real register is primary: it is the deepest, most stable, and most irreducible form, the form that most fully instantiates the concept of relational *eudaimonia*. Imaginary and symbolic register happiness are real and valuable, but they are vulnerable to the disillusionment of idealisation and the inflation of symbolic goods respectively. Real register happiness—the happiness of genuine co-presence, of the encounter with the other's irreducible particularity—is not vulnerable to these failures: it cannot be forged, cannot be inflated, and does not depend on the maintenance of an idealised image.

10.4 Relational *Eudaimonia* and Individual Flourishing

The final question the reconstruction must address is the relationship between relational *eudaimonia*—the flourishing of the relational field—and individual flourishing. The GRB account has argued that the primary subject of flourishing is the relational field, not the individual; but this raises an obvious question: what, then, is the status of individual flourishing? Is it eliminated by the GRB account? Is it a mere epiphenomenon of relational flourishing? Or does it retain an independent significance within the framework?

The answer is that individual flourishing is neither eliminated nor reduced to a mere epiphenomenon, but reconceived as a *moment within* the larger structure of relational *eudaimonia*—a necessary moment, without which relational *eudaimonia* would be impossible, but a moment that achieves its fullest significance within the relational whole.

This reconception can be made precise. Individual flourishing—the development of the

individual's capacities, the exercise of the individual's virtues, the realisation of the individual's potential—is a necessary condition for the richest relational flourishing: a relational field composed of individuals who are not themselves developing, exercising their capacities, or realising their potential is a field in which the co-evolutionary dynamics are impoverished. Each individual brings to the relational field the resources of their individual development—their particular capacities, their unique perspective, their specific way of noticing and responding to contingent events—and the richness of the relational field's co-evolutionary dynamics depends on the richness of these individual contributions. Individual flourishing feeds relational flourishing.

But the relationship is also reciprocal: relational flourishing feeds individual flourishing. The individual who participates in a richly co-evolving relational field is themselves developed by that participation—their capacities are expanded by the demands of co-evolution, their perspective is enlarged by the encounter with the other's irreducible particularity, their virtues are exercised and deepened by the practices of shared life. The relational field is not merely the arena in which individual flourishing occurs; it is a generative environment that produces individual flourishing as one of its outputs.

The relationship between relational and individual flourishing is therefore neither unidirectional nor competitive but **mutually generative**: individual flourishing enriches the relational field, and the relational field enriches the individuals who participate in it. This mutual generativity is the formal content of what the GRB framework calls the spiral structure of relational development: each turn of the spiral both requires and produces individual development, and each individual development both requires and produces relational development. The spiral is the form of their mutual implication.

Relational *eudaimonia* as mutually generative. Relational *eudaimonia*—the flourishing of the relational field as the primary subject—and individual flourishing are mutually generative rather than competitive. Individual flourishing enriches the relational field by bringing to it the resources of individual development; relational flourishing enriches the individual by generating, through co-evolutionary dynamics, developments that the individual could not have achieved alone. The spiral structure of relational development is the form of this mutual generativity: each turn of the spiral both requires and produces individual development, and each individual development both requires and produces relational development.

This mutual generativity is the deepest vindication of the relational account of happiness. It shows that the GRB framework does not sacrifice the individual to the relation—it does not ask the individual to dissolve into the relational field for the sake of relational flourishing—but rather shows that the fullest individual flourishing and the fullest relational flourishing are not in competition but in spiral co-implication. The person who develops most fully as an individual is, in the GRB account, the person who participates most richly in a co-evolving relational field; and the relational field that flourishes most fully is the one whose participants are most fully developed as individuals. This is the eudaimonist content of what Buber said philosophically: in the beginning, and in the end, is the relation.

With the eudaimonistic reconstruction complete, we turn to the hermeneutic re-reading of

the classical happiness concepts that the reconstruction makes possible. The question is no longer merely whether these concepts are adequate to relational happiness—we have established that they are not—but how they are transformed when the relational field is placed at the centre of the analysis.

11 A Generative-Relational Hermeneutics of Classical Happiness Theories

The reconstruction of the previous section has established the theoretical framework within which the classical happiness concepts must now be re-read. The task of this section is not merely critical—we have already, in §3, shown where each tradition falls short of the shared flower. The task is hermeneutic in Gadamer's sense [14]: a reading that brings the classical concepts into dialogue with the GRB framework, allowing each to illuminate the other, and that produces, through this dialogue, a richer understanding than either tradition could achieve alone. The goal is not the replacement of the classical concepts but their transformation—their relocation within a framework that preserves their genuine insights while correcting their individualist presuppositions.

11.1 Virtue (*Aretē*) as Relational Achievement

Aristotle's concept of virtue (*aretē*) is the excellence of a capacity: the state of character in which a person responds to the situations they face in the best possible way, with the right motivation, at the right time, toward the right objects [1]. Virtues are developed through practice: one becomes courageous by doing courageous things, just by doing just things, generous by doing generous things, until the excellent response becomes second nature—a stable disposition that is exercised reliably and without great effort.

The GRB hermeneutics of virtue begins by asking: what happens to this account when the primary subject of flourishing is relocated from the individual to the relational field? The answer is that virtue is reconceived as a relational achievement rather than an individual one.

In the first instance, this means that many virtues are constitutively relational: they are not properties of individuals considered in isolation but properties of relational fields. Generosity, for example, is not simply the individual's disposition to give; it is the disposition to give in a way that responds to the particular neediness, the particular situation, the particular dignity of this other person—a disposition that is exercised in a relation and that is shaped by the history of that relation. The generous person in an intimate relation is not generous in the abstract but generous toward this particular person, in the way that this particular person can receive generosity, at the moment when generosity is what the relation calls for. This relational specificity of virtue is something that Aristotle's account, for all its sophistication, does not fully capture.

More fundamentally, the GRB account holds that virtues are not simply brought *to* the relational field by individuals who already possess them; they are *generated* by the relational field through co-evolutionary dynamics. The courage that one shows in a difficult shared situation is not simply the exercise of a previously developed individual virtue; it is, in part, a response to the relational field's demand—a response that would not have taken the form it

takes, or perhaps would not have occurred at all, without the specific dynamics of this particular relational encounter. The relational field calls forth virtues from its participants that the participants did not previously know they possessed; and in calling them forth, it develops them—it produces, through the co-evolutionary dynamics of the shared situation, a virtuous response that becomes, through the relational STDP of the shared experience, a more stable disposition in each participant.

Relational virtue. Virtue, under the GRB hermeneutics, is not merely exercised in relations but generated by them. The relational field calls forth virtuous responses from its participants that the participants could not have produced alone, and in calling them forth, it develops the virtuous dispositions of the participants through the co-evolutionary dynamics of shared experience. Virtue is a relational achievement, not a prior individual possession that is subsequently deployed in relational contexts.

11.2 Practical Wisdom (*Phronesis*) as Relational Cognition

Phronesis—practical wisdom, the capacity to deliberate well about what conduces to flourishing in particular circumstances—is, for Aristotle, the master virtue: the intellectual virtue that governs the exercise of all the others, determining what the virtuous response is in each particular situation [1]. It is irreducibly particular: it cannot be captured in rules or algorithms but requires the kind of perceptual sensitivity to concrete situations that only experience can develop.

Under the GRB hermeneutics, *phronesis* is reconceived as relational cognition: a form of practical intelligence that is distributed across the relational field rather than concentrated in the individual. The practically wise response to a shared situation is not the response of the most practically wise individual in the dyad; it is the response that emerges from the joint deliberation, joint perception, and joint wisdom of the relational field as a whole.

This relational reconception of *phronesis* has several dimensions. First, the relational field has access to more information than either individual: each partner perceives aspects of the situation that the other misses, and the joint deliberative process—the conversation, the exchange of perspectives, the mutual correction of individual blind spots—produces a richer and more accurate perception of the situation than either individual could achieve alone. Second, the relational field has a form of practical memory that exceeds the individual's: the accumulated history of shared decisions, shared mistakes, and shared learning that constitutes the relational field's deliberative wisdom is not stored in either individual's memory alone but in the relational attractor landscape that has been shaped by all previous co-evolutionary responses to shared situations. Third, the relational field exercises a form of practical wisdom that is specifically attuned to the needs and character of the relational system: the joint decision that best serves the relational field's flourishing is not necessarily the same as the decision that best serves either individual's flourishing, and the practically wise couple has developed the capacity to distinguish between these.

11.3 Friendship (*Philia*) Reconstituted

Aristotle's analysis of *philia*—encompassing friendship, love, and all forms of care for another—is among the most philosophically rich parts of the *Nicomachean Ethics* [1]. Aristotle distinguishes three forms: friendship of utility (valued for what one gets from it), friendship of pleasure (valued for the enjoyment it provides), and friendship of virtue (valued for what the friend is in themselves—their character, their excellence, their irreplaceable particularity). Only the third form is *philia* in the fullest sense; the first two are incomplete instances that share some features of true friendship but lack its essential character.

The GRB hermeneutics of *philia* begins by affirming the basic structure of Aristotle's analysis—the distinction between the three forms, and the priority of virtue-*philia*—but relocates the entire analysis within the relational ontology. Aristotle's virtue-*philia* is a relation between two individuals who love each other for what they are; the GRB account holds that the deepest form of *philia* is not the relation between two pre-existing individuals but the co-constitution of two subjects within a shared relational field.

The friend, on the GRB account, is not primarily a person I love for what they already are, independently of our relation; the friend is a person who is, in part, what they are *because of* our relation—a person whose character, sensitivities, and virtues have been shaped by the co-evolutionary dynamics of our shared life, just as mine have been shaped by theirs. The love that binds us is not the love of a pre-existing excellence but the love of what we have become together—a love that has itself been generated by the co-evolutionary dynamics of the relational field and that cannot be fully understood apart from those dynamics.

Aristotle's famous remark that the friend is “another self” (*allos autos*) receives a new meaning under this relational reconception. The friend is not another self in the sense of a self who resembles me or who shares my values; the friend is another self in the sense of a self who has been co-constituted with me, in the same relational field, through the same history of shared contingent events—a self whose being is, in part, constituted by and continuous with my being, not through any mystical fusion but through the concrete dynamical history of a shared life.

11.4 Flow as Relational Resonance

Csikszentmihalyi's account of flow—optimal experience arising from the matching of skill and challenge in individual absorption—has already been shown, in §3.3 and §9.3, to be inadequate to the phenomenon of relational flow. Here we give the positive GRB account of what relational flow is and how it relates to the individual flow that Csikszentmihalyi describes.

Relational flow is the state of the relational field in which co-evolutionary resonance is sustained over an extended period: a state of strong coupling, low threshold, deep attunement, and harmonious joint trajectory through the relational phase space. It is the dynamic condition in which the relational field is most fully itself—most fully engaged in the co-evolutionary activity that is its distinctive form of flourishing.

The relationship between individual flow and relational flow is one of mutual support but genuine difference in kind. Individual flow—the absorption of a skilled practitioner in a challenging task—can contribute to relational flow by bringing each partner to a state of engaged, present attentiveness that facilitates coupling. And relational flow can create the

conditions for individual flow by providing each partner with the deep attunement and mutual support that reduces anxiety and enables the full exercise of individual capacity. But neither is reducible to the other, and neither is a special case of the other: they are genuinely different forms of optimal experience, arising at different levels of the dynamical system.

The paradigm case of relational flow—two people sitting together, doing nothing, in wordless co-presence—instantiates the defining features of relational flow in their purest form: no individual task, no individual challenge, no individual absorption. Only the relational field, in its own proper state of harmonious co-evolutionary resonance. The *doing nothing* of this paradigm case is, as §9.3 argued, the most demanding form of relational activity: it requires the sustained cultivation of co-present attentiveness, the active maintenance of the conditions for deep coupling, and the willingness to allow the relational field to be what it is without imposing individual agendas upon it.

11.5 *Ataraxia* Reconsidered: Relational Serenity

The Epicurean ideal of *ataraxia*—the undisturbed tranquillity of a mind freed from fear, anxiety, and the excessive pursuit of pleasure—has a genuine philosophical value that the GRB account does not simply reject [11]. The insight that many forms of human suffering arise from unnecessary anxiety, from the pursuit of pleasures that bring more pain than they are worth, and from false beliefs about what matters, is genuine and important. But the Epicurean remedy—the withdrawal from the social world into the tranquil pleasures of philosophical friendship in the Garden—is, from the GRB perspective, a retreat from the relational condition rather than its fulfilment.

The GRB hermeneutics of *ataraxia* proposes a relational form of serenity: not the tranquillity of withdrawal but the stability of a relational field that has achieved a deep shared attractor landscape, a strong and resilient coupling, and the capacity to receive contingent events—pleasant and painful alike—without being destabilised by them. This relational serenity is not the absence of perturbation but the capacity to absorb perturbations and integrate them into the co-evolutionary dynamics of the field: to let the contingent events enter the relational field, be processed by the shared attractor landscape, and contribute to the cumulative holonomy of the shared life, without destroying the stability of the field itself.

The Epicurean philosopher who achieves *ataraxia* by withdrawing from the social world has achieved a form of individual stability that is, in its way, admirable. But the couple who achieve relational serenity have achieved something richer and more demanding: a stability that is not purchased by withdrawal but maintained through engagement, a tranquillity that coexists with deep coupling rather than requiring its absence. Relational serenity is the *ataraxia* of the relational field, not of the individual—and it is, in the GRB account, the deeper and more complete achievement.

11.6 *Apatheia* Inverted: The Virtue of Relational Vulnerability

The Stoic ideal of *apatheia*—freedom from the passions, the capacity to remain unmoved by what happens in the external world—represents, from the GRB perspective, the clearest formulation of what relational happiness must oppose [2]. For *apatheia* is precisely the closure of the relational threshold: the achievement of a state in which contingent events—flowers on

paths, unexpected beauty, shared grief—can no longer enter the individual’s inner life as significant events. The Stoic sage has achieved immunity to the shared flower; in doing so, they have also achieved immunity to relational happiness.

The GRB hermeneutics of *apatheia* does not deny the value of equanimity in the face of what one cannot change, or the importance of not being enslaved to passions that distort judgement and corrupt action. These insights are genuine. But it inverts the Stoic’s evaluative priority: instead of treating vulnerability to the passions as the disease and *apatheia* as the cure, the GRB account treats vulnerability—specifically, the vulnerability of a relational field that is open to receiving contingent events as relational events—as a virtue rather than a deficiency.

Relational vulnerability is the capacity to be moved by what happens in the relational field: to allow the contingent event to enter the field, to lower the threshold of joint attention, to let the flower matter. It is not weakness or instability; it is the form of openness that makes relational co-evolution possible. A relational field that has achieved *apatheia*—that is no longer open to being moved by contingent events, that has closed its threshold to the relational spike—has achieved a kind of invulnerability that is, in the GRB account, not a virtue but a pathology: the pathology of a relational system that has ceased to co-evolve, that has hardened into fixed patterns, that can no longer generate the happiness signal because it is no longer engaged in co-evolutionary activity.

11.7 Maslow’s Hierarchy Inverted

Maslow’s hierarchy places self-actualisation at the apex of human motivation: the fulfilment of one’s individual potential as the highest human achievement [25]. Under the GRB hermeneutics, this hierarchy requires inversion at its apex. The highest form of human flourishing is not individual self-actualisation—the realisation of the individual’s full potential in relative independence from others—but relational co-actualisation: the mutual realisation, through the co-evolutionary dynamics of the relational field, of capacities and forms of being that neither participant could have achieved alone.

The inversion does not reject Maslow’s lower levels: the physiological needs, the safety needs, the belonging and love needs are real and their satisfaction is genuinely necessary for human flourishing. But it reconceives the relationship between the lower levels and the apex. On Maslow’s account, belonging and love (level three) are satisfied on the way to self-actualisation (level five): they are conditions for individual flourishing, not its culmination. On the GRB account, belonging and love are not conditions for a higher individual achievement but the medium in which the highest form of human flourishing—relational co-actualisation—occurs. The apex of the hierarchy is not beyond the relation but within it.

Maslow’s peak experiences—moments of transcendence, unity, and profound well-being that characterise the self-actualising person—receive a relational reinterpretation under the GRB account. The deepest peak experiences are not individual moments of transcendence but the shared moments of relational flow in which the relational field achieves its deepest co-evolutionary resonance: the wordless co-presence of two people in deep attunement, the shared encounter with a contingent beauty that enters the relational field as a vivid relational spike, the moment of shared recognition in which both partners feel, simultaneously, the depth of what they have built together.

11.8 Self-Determination Theory: Relatedness as Ground, Not Need

Self-determination theory's three basic psychological needs—autonomy, competence, and relatedness—are, in the GRB hermeneutics, reconceived at the level of their foundational ontology. The most significant revision concerns relatedness: in SDT, relatedness is a need of the individual, whose satisfaction contributes to the individual's well-being [8]. In the GRB account, relatedness is not a need of the individual but the ontological ground of the individual—the relational field from which the individual emerges and in which the individual continues to be constituted.

This reconception does not eliminate the genuine insights of SDT. The finding that autonomy-supportive environments produce greater well-being than controlling environments corresponds, in the GRB account, to the finding that relational fields that support the individual's contribution to co-evolutionary dynamics produce richer co-evolutionary activity than relational fields that suppress or control individual contribution. The finding that competence—the experience of effectiveness and mastery—contributes to well-being corresponds, in the GRB account, to the finding that individual development enriches the relational field by bringing to it the resources of developed individual capacity.

But the reconception is real: SDT asks how individual needs are satisfied in social contexts; the GRB account asks what kind of relational field best supports co-evolutionary flourishing. The former takes the individual as its fundamental unit and asks how the social environment serves the individual's needs; the latter takes the relational field as its fundamental unit and asks how individual development serves and is served by the field's co-evolutionary activity. These are different questions, and they yield different practical implications.

11.9 Frankl's Meaning as Relational Emergence

Frankl's account of meaning as the primary human motivation—and of love as one of its highest sources—is, in the GRB hermeneutics, preserved in its essential insight but relocated in its ontological structure [13]. Frankl holds that meaning is found or created by the individual in engagement with the world; the GRB account holds that the deepest meaning is not found or created by the individual but generated by the relational field through co-evolutionary dynamics.

The meaning of the shared flower is not the meaning that either person assigns to it individually; it is the meaning that the relational field generates through the act of sharing—a meaning that belongs to the *between*, that is irreducible to either person's individual attribution, and that neither could have produced alone. This relational meaning has the character that Frankl associates with genuine meaning: it is felt as given rather than made, as discovered rather than invented, as belonging to the world rather than merely to the subject. Frankl is right that the deepest meaning feels given; the GRB account explains why: because it is given—given by the relational field to the individuals who participate in it, as the emergent product of their co-evolutionary activity.

Frankl's account of love—as the encounter with the unique and irreplaceable personhood of the beloved—also receives a GRB transformation. The beloved's irreplaceable personhood is not a pre-existing property that the lover discovers; it is, in part, a product of the relational co-evolution between lover and beloved. The beloved's specific character—the particular way

in which they are irreplaceable—has been shaped by the history of the relational field, by the co-evolutionary dynamics that have developed both participants and constituted them as the specific persons they are in relation to each other. The irreplaceable beloved is, in part, a relational achievement: the product of a shared life's co-evolutionary dynamics, not merely a pre-existing given that the lover is fortunate enough to encounter.

11.10 Subjective Well-Being Dissolved and Reconstituted

The concept of subjective well-being (SWB)—the individual's own evaluation of their life, including both cognitive judgements (life satisfaction) and affective components (positive and negative affect)—is, under the GRB hermeneutics, simultaneously dissolved and reconstituted.

It is dissolved at the level of its fundamental presupposition: the presupposition that well-being is a property of a subject, and that the relevant subject is the individual. If the primary subject of flourishing is the relational field, then the concept of individual subjective well-being—however carefully measured and however empirically robust—is not measuring the right thing. It is measuring one aspect of the relational field's flourishing (the individual's felt experience of the field's co-evolutionary activity, from one of the perspectives the field has constituted) while systematically missing the field-level properties that are the primary locus of flourishing.

It is reconstituted, however, as **relational subjective well-being**: a measure not of the individual's evaluation of their life but of the dyad's shared evaluation of their relational field. This reconstituted concept would include: the dyad's shared assessment of their co-evolutionary dynamics (are they developing together? are they generating new shared attractors? is their coupling deepening?), their shared experience of relational flow (how often do they achieve states of deep co-present resonance?), and their shared sense of the meaning generated by their relational field (does the field generate significance that neither could generate alone?). A measurement instrument based on these dimensions would be genuinely novel and would yield empirical findings that the standard SWB measures systematically miss.

11.11 The PERMA Model Relationally Reconceived

Seligman's PERMA model—Positive emotion, Engagement, Relationships, Meaning, and Accomplishment—is, among the modern positive psychology frameworks, the one that most explicitly acknowledges the multi-dimensional character of well-being [33]. The GRB hermeneutics of PERMA does not reject this multi-dimensionality but relocates each dimension from the individual to the relational field.

Positive emotion (P) becomes relational positive affect: the shared emotional states generated by the relational field's co-evolutionary activity, including the happiness of the shared flower, the shared joy of relational flow, and the shared satisfaction of co-evolutionary achievement. These are not the sum of two individual positive emotions but the emergent affective properties of the field.

Engagement (E) becomes relational engagement: the state of the relational field in which both participants are fully present to the co-evolutionary dynamics—not absorbed in individual tasks but genuinely co-present to each other and to the contingent events that enter the

shared field. Relational engagement is the dynamic condition that makes relational flow possible.

Relationships (R), which in the original model names one of five individual needs, becomes, in the GRB account, the foundational category from which all the others are derived: not one component among five but the ontological ground of the entire framework. This is the most radical transformation: what is a component in the individualist model becomes the ground in the relational model.

Meaning (M) becomes relational meaning: the significance generated by the relational field through co-evolutionary dynamics—the meaning of the shared life, the shared project, the shared history of contingent events that have constituted the *between*. This relational meaning exceeds the individual meanings that either participant can generate alone and is felt, by both, as belonging to the field rather than to either of them.

Accomplishment (A) becomes relational accomplishment: the achievements of the relational field as a whole—the shared attractor landscape that has been built through a lifetime of co-evolutionary activity, the depth and resilience of the coupling that has been developed, the richness of the *between* that has been constituted. These relational accomplishments are not reducible to the individual accomplishments of either participant; they are achievements of the field, belonging to the *between* that both have built together.

The PERMA model relationally reconceived. Under the GRB hermeneutics, each of the five PERMA dimensions is transformed when the relational field replaces the individual as the primary subject of flourishing. Positive emotion becomes relational affect, Engagement becomes relational co-presence, Relationships becomes the ontological ground of all the others, Meaning becomes relational emergence, and Accomplishment becomes the achieved depth of the relational attractor landscape. The transformed PERMA model is a genuine positive psychology of the relational field, not a psychology of the individual in social context.

The hermeneutic re-reading of the classical happiness concepts is now complete. Each concept has been both preserved in its genuine insight and transformed in its ontological location: from the individual to the relational field, from the properties of persons to the emergent properties of the *between*. The result is not the replacement of the classical tradition but its fulfilment: the completion of insights that the classical thinkers glimpsed but could not fully articulate within the individualist ontology they inherited and, for the most part, never questioned. Before drawing the conclusions of the paper, we must attend to a further dimension that the hermeneutic re-reading has not yet addressed: the cross-cultural dimension of relational happiness, which both confirms the GRB account and subjects it to the critical scrutiny of traditions that have approached the relational field from very different directions.

12 Cross-Cultural Dimensions of Relational Happiness

The GRB account of relational happiness has been developed, in the preceding sections, primarily in dialogue with the Western philosophical tradition—existentialism, eudaimonism, and the modern psychology of well-being. This dialogue has been necessary and illuminat-

ing, but it carries a risk that must now be confronted: the risk that the account is not a universal theory of relational happiness but a particular cultural construction, shaped by the conceptual frameworks and experiential norms of a specific tradition, and presenting itself as universal in the way that all cultural particulars are tempted to do when they lack the mirror of genuine cross-cultural encounter.

This section provides that mirror. It examines four non-Western frameworks—Japanese conceptions of *ma* and *en*, Confucian relational ethics, Ubuntu philosophy, and the broader question of the GRB account’s own cultural situatedness—not merely to confirm the account through cross-cultural comparison but to subject it to genuine critical scrutiny. The cross-cultural encounter is, in the spirit of the GRB framework itself, a form of relational co-evolution at the level of philosophical traditions: it should produce something richer than either tradition possessed before the encounter, and it should be willing to modify the account in light of what the encounter reveals.

12.1 Japanese *Ma* (間): The Generative Interval

The Japanese concept of *ma* (間)—often translated as interval, gap, pause, or space—is one of the most philosophically rich concepts in the Japanese aesthetic and cultural tradition, and one of the most directly relevant to the GRB account of relational happiness [30]. *Ma* is not merely the empty space between two things but the generative interval that constitutes both things as the things they are: the pause between two musical notes that gives each note its character, the space between two architectural elements that makes the building breathe, the silence between two words in a conversation that allows the words to mean.

The relevance of *ma* to the GRB account is immediate and profound. The *between* that the GRB framework identifies as the primary site of relational happiness is precisely the kind of generative interval that *ma* names: not the empty space between two pre-existing individuals but the positive relational space that constitutes the individuals as the beings they are in relation to each other. *Ma* is the Japanese cultural articulation of what the GRB framework calls the relational field: a positive ontological region, generative of what occurs within and around it, irreducible to either of the things it stands between.

The Japanese aesthetic tradition has developed the concept of *ma* with a precision and richness that Western philosophy has not matched. In the arts, *ma* is the principle that determines where to leave space, when to be silent, how much emptiness is needed for the fullness to mean. In architecture, *ma* is the interval between rooms, between garden and interior, between built and unbuilt space, that gives the whole its character and makes movement through it meaningful. In music, *ma* is the pause that makes the phrase—the silence that is not the absence of music but its continuation by other means.

In interpersonal life, *ma* is the quality of shared silence that characterises deep intimacy: the capacity of two people to be together without speaking, without acting, without filling the space with content, and to find in that shared silence not emptiness but fullness—the fullness of a *between* that has been constituted through a long history of shared presence and that can now sustain itself in silence. This is precisely the phenomenology of relational flow that §9.3 described: the two people sitting together, doing nothing, deeply happy. The Japanese aesthetic tradition has a name for this state and has cultivated it as an art form; the GRB framework

provides its philosophical analysis.

The encounter with *ma* both confirms and enriches the GRB account. It confirms the account by demonstrating that the insight into the generative character of the relational interval is not a Western philosophical novelty but an ancient cultural recognition—one that a major non-Western tradition has developed with great sophistication. It enriches the account by adding a dimension that the formal dynamical analysis does not fully capture: the aesthetic dimension of relational happiness, the sense in which the shared silence is not merely a state of deep coupling but a form of beauty—a beauty that requires cultivation, that is produced through the long work of building a relational field deep enough to sustain it.

***Ma* and the generative interval.** The Japanese concept of *ma* provides an ancient and sophisticated cultural articulation of the GRB framework's core concept of the *between*: the positive, generative relational interval that constitutes the individuals it stands between and that is the primary site of relational happiness. The paradigm of relational flow—the shared silence of deep intimacy—is the interpersonal instantiation of *ma*, and the Japanese aesthetic tradition's cultivation of *ma* as an art form is a cultural practice of relational happiness cultivation that anticipates and confirms the GRB account.

12.2 Japanese *En* (縁) and Chinese *Yuan* (緣): The Ontology of Relational Contingency

The Japanese concept of *en* (縁) and its Chinese cognate *yuan* (緣)—variously translated as fate, destiny, bond, affinity, or relational contingency—provide a cultural ontology of the contingent event's role in the constitution of intimate relations that is directly relevant to the GRB account [30].

En/yuan names the fact that an intimate relation was initiated by a contingent encounter—a meeting that might not have occurred, a moment of joint attention to a shared object (perhaps a flower on a path) that happened by chance—and that this contingency is not merely the historical origin of the relation but a constitutive dimension of its present significance. When Japanese or Chinese speakers say of an intimate relation that it is marked by deep *en/yuan*, they are saying something philosophically precise: that the relation bears the mark of its contingent origin, that the contingency of the founding encounter is not overcome by the subsequent development of the relation but is preserved within it as a source of its significance.

This cultural ontology of relational contingency is a striking independent confirmation of the GRB account's claim that contingency is not merely the occasion for the formation of a relation but a constitutive dimension of the relation's ongoing character. The flower on the path is not merely the historical occasion of a happiness that could subsequently have been generated by other means; it is a moment in the relational field's ongoing constitution—a moment that, through the relational STDP mechanism, has permanently modified the attractor landscape of the field and continues to be present in all subsequent traversals of that landscape.

The cultural practice of celebrating *en/yuan*—of attending to the contingent occasions of one's significant relations, of treating the apparently accidental encounter with gratitude and

reverence, of understanding one's intimate bonds as gifts of contingency rather than achievements of will—is a form of relational attentiveness that the GRB account recommends on theoretical grounds. The cultural tradition has arrived, through a different route, at the same practical conclusion: that the cultivation of relational happiness requires the cultivation of openness to contingency, of readiness to receive what is simply there, of gratitude for the flower that might not have been.

12.3 Confucian Relational Ethics: *Ren* (仁) and the Constitution of the Person

The Confucian tradition offers perhaps the most systematic pre-modern philosophical account of relational ontology, and its concept of *ren* (仁)—often translated as benevolence, humanness, or loving-kindness, but better understood as the relational virtue that constitutes the person as a person—provides a powerful non-Western confirmation of the GRB framework's core ontological claims [6, 35].

The character for *ren* is composed of two elements: the character for person (人) and the character for two (二). This graphic etymology is philosophically significant: *ren* is literally the virtue of two persons in relation—the virtue that exists between persons, not within any single person considered alone. For the Confucian tradition, the person is not constituted independently of relations and then enters into them; the person is constituted *through* relations, and the cultivation of the person is inseparable from the cultivation of the relations through which the person comes to be. 仁者愛人—“the person of *ren* loves others”—is not merely a moral prescription but an ontological description: the person who possesses *ren* is, by that very possession, already in a relation of care and attention to others, because *ren* is constitutively relational.

The Confucian Five Relations (五倫)—ruler and minister, parent and child, husband and wife, elder and younger sibling, friend and friend—are not a taxonomy of the different types of relation that the pre-constituted individual might enter into; they are the ontological infrastructure through which the person is constituted. To be a person, in the Confucian account, is to occupy a position within this relational infrastructure—to be already a child, a sibling, a friend, a partner—and the cultivation of virtue is the cultivation of these relational positions, the deepening of the qualities that each relation calls for and generates.

The GRB account both affirms and critiques the Confucian framework. It affirms the core ontological insight: the person is constituted through relations, and the cultivation of the person is inseparable from the cultivation of the relational field. It critiques the hierarchical and asymmetric structure of the Five Relations, which, in their traditional form, constitute some parties to the relation as the active cultivators of virtue and others as the passive recipients of care, and which thereby fail to recognise the genuinely co-evolutionary character of the relational field: the fact that both parties are constituted by and constitutive of the relational dynamics, and that the relational field's flourishing requires the full participation and development of all its members.

Under the GRB hermeneutics, *ren* is reconceived as the fundamental relational virtue—not the virtue of one party caring for another but the virtue of the relational field itself: the generative quality of a relational system in which all participants are fully engaged in the co-evolutionary dynamics, in which no participant is rendered merely the recipient of another's

care, and in which the mutual constitution of all parties through the shared dynamical process is recognised and cultivated. This reconceived *ren* is the Confucian virtue liberated from its hierarchical structure and extended to its full relational implications.

Confucian *ren* and relational virtue. The Confucian concept of *ren*—the relational virtue that constitutes the person as a person through the practice of care and attentiveness toward others—provides a non-Western philosophical foundation for the GRB account’s core ontological claim that the person is constituted through relations. Under the GRB hermeneutics, *ren* is reconceived as the virtue of the relational field itself: the generative quality of a co-evolutionary system in which all participants are fully engaged, none is merely a recipient of another’s virtue, and the mutual constitution of all through the shared dynamical process is both recognised and actively cultivated.

12.4 Ubuntu Philosophy: “I Am Because We Are”

The African philosophical concept of Ubuntu—expressed in the Nguni proverb *umuntu ngumuntu ngabantu* (“a person is a person through other persons”) or, in its most widely known formulation, “I am because we are”—is perhaps the most direct non-Western articulation of the relational ontology that the GRB framework defends [26, 28].

Ubuntu holds that personhood is not a pre-given individual property but a relational achievement: one becomes a person through participation in a community, through the recognition of others, through the exercise of the virtues that community life calls forth and sustains. The isolated individual, on the Ubuntu account, is not a full person but an impoverished one: a person who has been cut off from the relational conditions that constitute personhood, and who can only be restored to full personhood through reintegration into the relational community.

The GRB account both resonates deeply with this Ubuntu insight and extends it in a specific direction. The resonance is evident: the core ontological claim of Ubuntu—that the individual is constituted through relations, that personhood is a relational achievement, that the individual’s flourishing is inseparable from the community’s flourishing—is structurally identical to the GRB account’s claim about the relational field as the generative ground of the individual subject. Ubuntu provides a living cultural instantiation of the GRB ontology, demonstrating that the relational account of the person is not a philosophical novelty but an ancient human recognition that has sustained entire communities and civilisations.

The extension that the GRB account adds to the Ubuntu framework is the formal dynamical analysis: the account of how the co-evolutionary dynamics work, what the mechanism of relational STDP is, how the shared attractor landscape is built through the cumulative effect of shared contingent events. Ubuntu tells us that the person is constituted through others; the GRB account explains, with dynamical precision, *how* this constitution occurs—what the structural modification looks like, what the threshold conditions are, what the temporal dynamics of coupling and synchronisation involve. The two frameworks are complementary: Ubuntu provides the cultural and ethical ground, the GRB account provides the formal and empirical scaffolding.

The Ubuntu framework also enriches the GRB account by extending the relational field beyond the dyad. The GRB analysis has focused primarily on the intimate dyad—the couple who share the flower on the path—but Ubuntu’s relational ontology is constituted at the level of the community: it is through the community of persons, not merely through the dyadic relation, that full personhood is achieved. This community dimension of Ubuntu points toward an extension of the GRB framework that the present paper can only gesture toward: the account of how the intimate relational field is embedded within and sustained by wider relational communities, and how the happiness of the dyadic field is both supported by and contributes to the happiness of the wider community in which it is situated.

12.5 The GRB Account’s Own Cultural Situatedness

Having examined the GRB account in dialogue with four non-Western frameworks, we must now turn the critical lens on the GRB account itself and ask: what are its own cultural presuppositions? What blind spots does it carry from the particular traditions in which it has been developed?

Several potential sources of cultural bias can be identified.

The dyadic focus. The GRB account has centred on the intimate dyad as the paradigm of the relational field, and has used the couple—two people walking together, noticing a flower, sharing a moment—as its primary illustrative case. This dyadic focus reflects, in part, the individualist tradition’s reduction of social life to dyadic relations, and it may miss the irreducibly communal character of relational life that the Ubuntu framework and the Confucian Five Relations both emphasise. A fully adequate GRB account would need to extend its dynamical analysis to relational fields of more than two participants, and to consider how the happiness of dyadic relations is embedded within and shaped by the wider communal fields in which they are situated.

The romantic couple as paradigm. The paper’s use of the romantic couple as its paradigm case of the intimate relational field reflects a particular cultural privileging of romantic love as the highest form of intimacy—a privileging that is itself culturally specific and that other traditions, including many non-Western ones, do not share. The Confucian tradition places parent-child and elder-younger sibling relations at least as high as spousal relations; the Ubuntu tradition centres communal belonging rather than romantic dyads; the Aristotelian tradition privileges the friendship of virtue over romantic love. A more culturally comprehensive account would need to show that the GRB analysis applies across these different forms of intimate relation, and would need to resist the implicit privileging of romantic love that the paper’s choice of examples may convey.

The Western philosophical vocabulary. The GRB account has been developed in and through the vocabulary of the Western philosophical tradition—dynamical systems, emergence, holonomy, the three registers of Lacanian psychoanalysis, the Heideggerian *between*. This vocabulary may itself introduce cultural presuppositions that are not visible from within the tradition and that non-Western frameworks can help to identify. The *ma/yuan/ren*/Ubuntu encounter has already suggested some ways in which the Western vocabulary may be insufficient: the concept of *ma*, for example, captures dimensions of the relational interval that the dynamical systems vocabulary does not easily accommodate, and the Ubuntu concept of com-

munal personhood suggests extensions of the GRB framework that its dyadic focus has not developed.

Cultural situatedness and the demand for ongoing dialogue. The GRB account of relational happiness is not culturally neutral. It carries presuppositions from the Western philosophical tradition—a dyadic focus, a privileging of romantic love, a reliance on Western philosophical vocabulary—that the cross-cultural encounter has identified and that future work must address. The appropriate response to this cultural situatedness is not to abandon the GRB account but to engage in the kind of ongoing cross-cultural dialogue that the framework itself recommends: a dialogue that is genuinely open to modification, that treats the non-Western frameworks as genuine philosophical interlocutors rather than as confirmatory examples, and that is willing to extend, revise, and deepen the account in light of what the dialogue reveals.

The cross-cultural encounter has done what such encounters, at their best, always do: it has both confirmed and complicated the account. It has confirmed the core ontological claim—that the relational field is the primary site of happiness, that the individual is constituted through relations, that the contingent event is the medium through which relational co-evolution is triggered—by showing that this insight is independently reached, in different conceptual vocabularies and from different experiential starting points, by traditions with no historical contact with the Western philosophical tradition that the GRB account primarily inhabits. And it has complicated the account by identifying cultural presuppositions that require further work and by suggesting extensions—toward communal relational fields, toward non-romantic forms of intimacy, toward non-Western philosophical vocabularies—that the present paper can only begin to gesture toward.

With the cross-cultural examination complete, we turn to the practical question: how is relational happiness cultivated? What are the practices through which the theoretical insights of the GRB account become available to those who live in intimate relational fields?

13 Praxis: The Cultivation of Relational Happiness

A theory of happiness that cannot say how happiness is to be cultivated—that provides a philosophically rigorous account of what happiness is and where it is located but remains silent on how it is to be achieved—is incomplete in a way that the eudaimonist tradition, from Aristotle onward, has consistently refused to accept. *Eudaimonia* is not merely a theoretical object but a practical one: it is the kind of thing that is achieved through practice, maintained through habit, and lost through neglect. The GRB account of relational happiness is no exception to this practical demand. If relational happiness is the emergent signal of the relational field's co-evolutionary activity, then the cultivation of relational happiness is the cultivation of the conditions that make co-evolutionary activity possible and sustain it over time.

This section develops four practical dimensions of relational happiness cultivation. They are not four independent techniques to be applied separately but four aspects of a single integrated practice: the practice of building and maintaining a relational field that is deep, responsive, and generatively alive. Each dimension addresses a specific condition for co-evolutionary

activity, and together they constitute what might be called a *relational eudaimonic practice*—a way of living within an intimate relation that cultivates the conditions for the deepest form of shared happiness.

13.1 Attentional Practice: The Cultivation of Relational Readiness

The first and most fundamental practical dimension is attentional: the cultivation of a quality of shared presence that lowers the threshold for relational spikes and makes the relational field responsive to the contingent events that enter it. The flower on the path cannot enter the relational field as a relational event if neither person is attending—if both are absorbed in their individual preoccupations, their anxieties, their screens, or their plans. The threshold for joint attention must be met before a contingent event can trigger co-evolutionary dynamics, and this threshold is not automatically met; it must be actively cultivated.

The attentional practice of relational happiness is not the same as mindfulness in the individual sense—though it draws on the same underlying capacities of sustained, non-judgmental attention. Individual mindfulness cultivates the individual's capacity to attend to their own experience with clarity and equanimity; relational attentional practice cultivates the dyad's capacity to attend together to the shared field of experience. The difference is precisely the difference between the individual who notices the flower alone and the couple who notice it together: the capacity being cultivated is not individual attention but joint attention, not the lowering of one's own threshold but the lowering of the shared threshold of the relational field.

Joint attentional practice has several concrete forms. The first is the cultivation of what might be called **relational presence**: the quality of being genuinely co-present to the other—not merely spatially adjacent but attentionally oriented toward the shared field, available for the joint constitution of shared objects. Relational presence is not constant, and it is not necessary or desirable that it be constant; it is a quality that is cultivated through specific practices and that, once cultivated, is available to be activated in the right circumstances. The daily rituals of intimate life—shared meals, shared walks, shared moments of quiet—are opportunities for the practice of relational presence: moments in which the default orientation is toward the shared field rather than toward individual preoccupation.

The second concrete form is the practice of **shared noticing**: the active cultivation of the habit of attending jointly to the contingent events that appear in the shared field. This is the practice of the shared flower: not the occasional dramatic shared experience but the daily, small-scale practice of noticing and sharing what is simply there—the quality of light, the sound of rain, the unexpected beauty of an ordinary thing. These small sharings are the training ground for the relational attentional capacity: they cultivate the habit of joint attention, lower the shared threshold of the relational field, and accumulate, through the relational STDP mechanism, the structural modifications that deepen the attractor landscape over time.

The third concrete form is the practice of **digital unplugging**: the deliberate creation of conditions in which the individual's attentional resources are not pre-emptively captured by the demands of the digital environment—the notifications, the feeds, the messages, the endless solicitation of individual attention that the contemporary media environment provides. The digital environment is, from the perspective of the relational field, a threshold-raising mech-

anism: it captures individual attention in ways that make joint attention difficult, that raise the relational threshold and thereby reduce the relational field's responsiveness to contingent events. The deliberate practice of digital unplugging—of creating sustained periods in which both partners are available for joint attention—is not a nostalgic rejection of technology but a practical recognition that the cultivation of relational presence requires the management of attentional resources.

Attentional practice as threshold management. The cultivation of relational happiness begins with attentional practice: the cultivation of the quality of shared presence that lowers the relational threshold and makes the field responsive to contingent events. This practice has three concrete forms: the cultivation of relational presence through shared rituals, the practice of shared noticing through the daily, small-scale sharing of contingent events, and the deliberate management of attentional resources through digital unplugging. Together, these practices constitute the attentional foundation of relational *eudaimonia*.

13.2 Sharing as Practice: Timeliness, Smallness, and the Refusal to Filter

The second practical dimension concerns the act of sharing itself—the constitutive act by which contingent events are introduced into the relational field as relational events. The theoretical analysis of the relational STDP mechanism in §7 has specific practical implications: the timing of sharing matters, the scale of the shared event matters, and the habitual filtering of what is “worth” sharing is, from the perspective of relational happiness cultivation, a practice to be scrutinised and, in many cases, unlearned.

Timeliness. The relational STDP analysis shows that the structural modification produced by a shared event decreases exponentially with the temporal distance between the event and the sharing. The flower shared immediately—“look!”—produces a stronger co-evolutionary modification than the flower mentioned that evening, which produces a stronger modification than the flower mentioned a week later. This is not a moral judgement about the relative value of different sharings; it is a dynamical consequence of the coupling mechanism. The practical implication is that the cultivation of timely sharing—the cultivation of the habit of sharing contingent events as they occur, rather than filtering and storing them for later—is a direct contribution to the structural deepening of the relational field.

Timely sharing requires a kind of attentional discipline that is not always easy to maintain: the discipline of noticing what one is noticing, of recognising the relational relevance of a contingent event at the moment of its occurrence, and of acting on that recognition immediately. This is not a discipline of more sharing overall, but of differently distributed sharing: the redistribution of the sharing act from the settled, reflective mode (“I thought of something to tell you”) to the immediate, spontaneous mode (“look!”).

Smallness. The relational STDP analysis also implies that the cumulative structural modification produced by many small sharings over time exceeds the modification produced by occasional large ones. This is the relational analogue of the neural finding that synaptic plasticity is most effectively induced by repeated, moderate stimulation rather than by rare, intense

stimulation [3]. The practical implication is that the cultivation of relational happiness is not primarily the cultivation of dramatic shared experiences—the special occasions, the planned adventures, the memorable events—but the cultivation of the daily, small-scale practice of shared noticing: the flower, the bird, the quality of light, the unexpected smell, the small absurdity of an ordinary moment.

This is counterintuitive in a cultural environment that privileges the dramatic and the memorable, that measures the quality of a relation by the intensity of its peak experiences rather than by the depth of its daily texture. The GRB account suggests a different measure: the quality of a relational field is better indicated by the frequency and timeliness of small sharings than by the occasional occurrence of large ones. Two people who share many small contingent events, promptly and spontaneously, are building a deeper relational attractor landscape than two people who share occasional dramatic experiences but live, between them, in attentional isolation.

The refusal to filter. Perhaps the most demanding aspect of sharing practice is the cultivation of what might be called the refusal to filter: the practice of sharing contingent events without subjecting them to the habitual evaluation of whether they are “interesting enough,” “important enough,” or “significant enough” to warrant sharing. This filtering habit is deeply ingrained in most adults: we have learned, through cultural conditioning and the experience of social judgement, to share only what we think will be well received, only what conforms to the norms of interesting conversation, only what reflects well on our perceptual acuity or aesthetic sensibility.

The cultivation of relational happiness requires the partial unlearning of this filter. The flower on the path is not necessarily interesting in any objective sense; it is simply there, contingent, noticed. Its relational value is not in its objective interest but in the sharing itself—in the act of joint attention that introduces it into the relational field as a relational event. The partner who shares only the objectively interesting contingent events, and filters out the ordinary ones, is thereby reducing the frequency of the small relational spikes that are the most important source of cumulative structural modification. The refusal to filter is the practice of treating the ordinariness of contingent experience as the primary material of relational co-evolution, rather than as the background noise from which the objectively significant events must be extracted.

13.3 Co-evolutionary Receptivity: Receiving the Shared Event

The third practical dimension concerns not the initiating act of sharing but the receiving act: the way in which the partner receives the shared event and thereby completes or fails to complete the constitutive act that introduces the event into the relational field. The act of sharing requires two parties, and the quality of the co-evolutionary response depends as much on the receiver’s receptivity as on the sharer’s timeliness and spontaneity.

Co-evolutionary receptivity is the capacity to receive the shared contingent event as a relational event—to allow it to enter the relational field through the act of joint attention, to respond to the sharer’s act of sharing in a way that completes the constitutive act, and to participate in the co-evolutionary dynamics that the shared event triggers. It is the opposite of what might be called **relational deflection**: the habitual response that acknowledges the shared event but

returns immediately to individual preoccupation, that processes the shared information but does not allow it to enter the relational field as a relational event.

The phenomenology of relational deflection is familiar: one partner says “look!” and gestures toward the flower; the other glances briefly, says “yes, nice,” and returns to what they were thinking about. The information has been processed; the acknowledgement has been made; but the constitutive act has not been completed. The flower has not entered the relational field as a relational event; it has remained in one person’s individual experience while the other has noted it and moved on. No relational spike has occurred; no co-evolutionary modification has been produced; the opportunity for shared happiness has been missed.

The cultivation of co-evolutionary receptivity is, in part, the cultivation of a specific form of relational generosity: the willingness to be interrupted by the partner’s act of sharing, to set aside one’s individual preoccupation long enough to genuinely attend to the shared object, and to allow oneself to be moved by the contingent event that the partner has introduced into the relational field. This generosity is not self-abnegation; it is a recognition that the partner’s act of sharing is a relational gift—an offering to the *between*—and that the appropriate response to a gift is gratitude and genuine reception, not distracted acknowledgement.

The practical cultivation of co-evolutionary receptivity involves several specific habits. The first is the practice of **full turning**: when a partner initiates a sharing act, the practice of fully turning toward the partner and the shared object—physically, attentionally, and emotionally—rather than half-turning while maintaining partial engagement with one’s individual preoccupation. The full turn is the physical instantiation of the lowered threshold: it makes the body available for the embodied resonance that is the somatic correlate of joint attention.

The second is the practice of **dwelling**: after receiving the shared event, the practice of allowing the attention to dwell on the shared object—to spend a moment with the flower rather than immediately moving on—so that the relational spike has time to trigger the co-evolutionary dynamics before the threshold rises again. Dwelling is the temporal analogue of the full turn: it creates the time necessary for the co-evolutionary response to unfold.

The third is the practice of **relational echo**: the practice of responding to the shared event in a way that reflects back to the sharer the quality of one’s reception—not a performative declaration of enthusiasm but the genuine expression of whatever the shared event has called forth, however modest. The relational echo completes the constitutive act of sharing: it confirms to the sharer that the event has entered the relational field as a relational event, and it initiates the resonance that is the beginning of co-evolutionary happiness.

Co-evolutionary receptivity as relational practice. The cultivation of relational happiness requires not only the practice of sharing but the practice of receiving: the cultivation of co-evolutionary receptivity—the capacity to receive the partner’s act of sharing in a way that completes the constitutive act, allows the contingent event to enter the relational field as a relational event, and initiates the co-evolutionary dynamics that generate relational happiness. Co-evolutionary receptivity is practised through the habits of full turning, dwelling, and relational echo, and is cultivated through the general cultivation of relational generosity: the willingness to be interrupted, to attend, and to be moved.

13.4 Resisting Individualisation: The Counter-Practice of Relational Primacy

The fourth practical dimension is the most political and the most demanding: the active resistance of the individualising pressures that modernity exerts on intimate relational life, and the cultivation of a counter-practice of relational primacy—the deliberate reorientation of life’s priorities, structures, and habits toward the relational field rather than toward individual achievement, individual experience, and individual flourishing.

The individualising pressures of modernity are pervasive and powerful. The economy values individual productivity, individual career advancement, individual consumption, and individual achievement; it measures the quality of a life by the individual’s accumulated credentials, resources, and experiences, not by the depth of the relational fields in which the individual participates. The media environment—as noted in §13.1—is organised around the capture of individual attention, not around the cultivation of joint attention. The therapeutic culture of late modernity values individual self-knowledge, individual emotional regulation, and individual self-actualisation, and treats intimate relations primarily as contexts for individual development rather than as generative fields that are primary subjects of flourishing in their own right.

These pressures are not conspiracies but structural features of the social and economic order, and they cannot be resisted by individual willpower alone. The cultivation of relational primacy requires deliberate counter-structural practices: the organisation of life in ways that privilege the relational field even when the structural pressures of modernity privilege the individual.

Several such counter-practices can be identified. The first is **temporal counter-structuring**: the deliberate organisation of time in ways that protect the shared time of the relational field from the individualising demands of work, social obligation, and individual pursuit. This is not merely the scheduling of “quality time”—a category that already reflects the individualist assumption that relational time is a special allocation from the normal budget of individual time—but the reconception of time itself: the treatment of shared time as the primary temporal category, from which individual time is allocated rather than the reverse.

The second is **spatial counter-structuring**: the organisation of shared living space in ways that facilitate joint attention and shared presence, rather than in ways that maximise individual privacy, individual productivity, and individual comfort. The design of the shared home—the arrangement of furniture, the organisation of the kitchen, the disposition of shared and individual spaces—is not merely an aesthetic and practical matter but a relational one: it is the physical instantiation of the relational priorities of those who inhabit it, and it either supports or undermines the cultivation of the joint attentional practices that relational happiness requires.

The third is **narrative counter-structuring**: the deliberate cultivation of a shared narrative of the relational life that centres the relational field rather than the individual careers that compose it. The stories that a couple tells about their shared life—to themselves and to others—are not merely descriptions of a pre-existing reality but constitutive acts: they shape the relational field by determining what is attended to, what is valued, and what is understood as the primary subject of the shared story. A narrative that centres individual achievements and individual experiences (“I did this, I went there, I felt that”) is a narrative that individualises

the relational life; a narrative that centres shared events, shared responses, and shared developments (“we saw this, we felt that, we became this together”) is a narrative that relationally constitutes it.

The most fundamental counter-practice, however, is what might be called **the practice of non-possession**: the deliberate cultivation of the Daoist virtue of *xuande* (玄德)—to generate without possessing, to act without presuming, to foster without ruling [21]—in the relational context. The possessive attitude toward the relational field—the attempt to own the shared happiness, to claim the shared events as one’s own experiences, to use the relational field as a resource for individual enhancement—is precisely the attitude that, as the GRB framework’s account of evil cycles has established [37], extracts from the relational field rather than contributing to it, and thereby produces the conditions for the field’s degradation.

The non-possessive attitude is not indifference but a particular form of attentiveness: the attentiveness that allows the relational field to be what it is, that does not grasp at the happiness that arises in it but receives it with gratitude and lets it pass, that does not try to hold the flower beyond its moment but attends to the root that makes it possible. 为而不恃，功成而弗居—“to act without presuming on the result, to achieve without dwelling in the achievement.” This is not passivity but the highest form of relational activity: the activity of one who has learned that the relational field’s happiness is generated by the field itself, and that the individual’s task is not to produce it but to cultivate the conditions that allow it to arise.

Non-possession as the foundational relational practice. The most fundamental practice of relational happiness cultivation is non-possession: the cultivation of the Daoist virtue of *xuande* in the relational context—the willingness to generate without possessing, to share without claiming, to participate in the relational field’s co-evolutionary activity without attempting to own its products. Non-possession is not passivity or indifference but the highest form of relational attentiveness: the form that allows the relational field to flourish on its own terms, generating the happiness that arises from genuine co-evolutionary activity rather than from the individual’s possessive extraction of relational resources.

13.5 The Eudaimonic Practice as a Whole

The four practical dimensions—attentional practice, sharing practice, co-evolutionary receptivity, and the resistance of individualisation—are not four separate techniques but four aspects of a single integrated way of being in an intimate relational field. They are aspects of the same underlying orientation: the orientation toward the relational field as the primary site of one’s flourishing, and toward one’s participation in the co-evolutionary dynamics of that field as the primary form of one’s practical activity.

This integrated orientation is what the GRB framework calls **relational eudaimonic practice**: the practical form of the theory that the preceding sections have developed. It is not a list of things to do but a way of being—a form of life, in Wittgenstein’s phrase—that is constituted through the gradual development of the habits, orientations, and dispositions that make deep relational co-evolution possible. Like the Aristotelian virtues, it is developed through prac-

tice: one becomes a practitioner of relational happiness by repeatedly doing the things that a practitioner does, until those things become second nature—until the attentional turn, the spontaneous sharing, the receptive dwelling, and the non-possessive participation in the relational field’s activity become the default mode of one’s intimate life rather than the product of deliberate effort.

The temporal horizon of this practice is the lifetime. The cumulative relational happiness that the GRB account identifies as the deepest form of relational *eudaimonia*—the quiet, stable, resonant happiness of a mature relational field that has accumulated, through a lifetime of shared contingent events, the holonomy of a genuinely shared life—is not achieved in a moment or a season but through the long, patient, daily practice of the four dimensions described above. It is the happiness that [Paper IX](#) described in terms of the root rather than the flower [37]: not the brilliant flowering of a moment’s intensity but the deep, quiet, self-sustaining generativity of a root that has been tended through all weathers, through all the contingencies of a shared life, by two people who have learned to cultivate, together, the conditions for what continues.

14 Conclusions: At the Boundaries of the Frameworks

This paper has travelled a considerable distance from its starting point: a flower on a path, shared with the person one loves, and the happiness that arises from that sharing. The distance is not a departure from the starting point but a return to it—a return in which the flower is still the flower it was, the sharing is still the sharing it was, but both are now seen in the light of a theoretical understanding that was not available at the beginning. This is the spiral structure that [Paper IX](#) identified as the form of relational development and that the series, in its own form, enacts [37]: the return to the beginning that carries back the holonomy of everything traversed between departure and return.

In keeping with the series’ commitment to honest multi-framework analysis—and with the formal□established in [Paper IX](#) that genuine conclusions are polyphonic, that each framework says what it can say and honestly acknowledges what it cannot—this concluding section does not offer a synthetic summary that collapses the paper’s arguments into a single unified thesis. Instead, it presents the conclusions that each of the paper’s major frameworks can and cannot reach, and ends with a reflection on what the paper’s incompleteness reveals about the nature of the phenomenon it has been studying.

14.1 What the Philosophical Framework Can and Cannot Say

The philosophical framework of the GRB account—its relational ontology, its account of the *between* as a positive ontological region, its reconception of contingency as belonging primarily to the relation rather than to the individual—can say the following with confidence:

The primary subject of relational happiness is the relational field, not the individual. The happiness that arises from sharing the flower on the path is not the sum of two individual happinesses but an emergent property of the relational field: a property that belongs to the *between* and that cannot be located in either participant. The act of sharing is not the communication of a private experience but the constitutive act by which a contingent event enters the relational

field and is transformed into a relational event. The subject of contingency is the relation, not the individual.

The philosophical framework cannot say, from its own resources alone, why the relational field has the capacity to generate this emergent happiness—what the mechanism is, how the co-evolutionary dynamics work at the level of neural implementation, what the formal conditions for the emergence of shared attractors are. These questions require the formal and empirical frameworks that the paper has also developed. The philosophical framework establishes the conceptual space within which the formal and empirical questions can be asked; it does not answer them.

The philosophical framework also cannot resolve the tension between the GRB account's relational ontology and the genuine phenomenological reality of individual experience. The individual does experience their own happiness; there is something that it is like to be this particular person noticing the flower and feeling the happiness of sharing it. The GRB account holds that this individual experience is the relational field's happiness perceived from one of its constituted perspectives, but this claim, however philosophically well-grounded, does not fully dissolve the tension between the primacy of the relational field and the undeniable reality of individual experience. The tension is real, and its resolution—if it has a resolution—lies beyond what the philosophical framework of the present paper can provide.

14.2 What the Formal Framework Can and Cannot Say

The formal dynamical systems framework—the coupled oscillator model, the Kuramoto synchronisation analysis, the quantum entanglement structural analogy, the relational STDP mechanism, the phase space analysis of shared attractors—can say the following:

The co-evolutionary dynamics of an intimate relational system are real, formally well-defined, and distinct from the sum of the individual dynamics that compose them. The shared attractors of a coupled dynamical system are not the attractors of either individual system; they are genuine emergent properties of the coupling. The relational STDP mechanism provides a precise account of how contingent events produce structural modifications of the relational field, and it implies specific, testable predictions about the temporal dynamics of sharing and the cumulative trajectory of relational development.

The formal framework cannot say what the felt quality of the shared happiness is—cannot, from its equations and phase diagrams, generate the phenomenological description of §9. The formal framework operates at the level of dynamics and structure; it does not operate at the level of experience. The relationship between the formal level and the phenomenological level—the hard problem, in its relational form—remains open, and the present paper does not solve it. It is enough to have shown that the formal and phenomenological levels are complementary descriptions of the same phenomenon, without claiming that either reduces to the other.

The formal framework also cannot guarantee that the structural isomorphisms it has identified—between the relational system and coupled oscillators, between the relational system and quantum entanglement, between the relational system and spiking neural networks—are more than heuristically useful analogies. The formal framework has been presented throughout as providing structural isomorphisms rather than literal identifications; the limits of this claim must be honestly acknowledged. The relational system is not a quantum system, not

a spiking neural network, not a Kuramoto oscillator. It is a system that shares certain formal properties with these well-studied systems, and the shared formal properties illuminate aspects of the relational system's dynamics that would otherwise be difficult to describe with precision. But the illumination is partial, and the limits of the analogies are as important as their applicability.

14.3 What the Empirical Framework Can and Cannot Say

The empirical framework—the hyperscanning methodology, the longitudinal dyadic research programme, the physiological synchrony measurements, the behavioural coding protocols—can say the following:

There are empirically testable predictions that follow from the GRB account, and these predictions distinguish it from the individualist alternatives. The prediction that shared contingent events produce greater inter-brain synchrony than the same events experienced independently, the prediction that timely sharing produces stronger physiological coupling than delayed sharing, the prediction that longitudinal co-evolutionary dynamics produce cumulative structural modifications of the relational attractor landscape: these are all empirically tractable claims that can be tested with existing or developable methodology.

The empirical framework cannot confirm the philosophical and phenomenological claims of the GRB account—cannot show, from EEG data or fMRI activations, that the primary subject of happiness is the relational field rather than the individual. The empirical framework operates at the level of neural and physiological correlates; it does not operate at the level of ontological claims. The relationship between the empirical evidence and the philosophical framework is one of mutual constraint rather than unidirectional grounding: the empirical findings constrain the philosophical account by ruling out accounts that are inconsistent with the data, but they do not uniquely determine the philosophical account by entailing it.

The empirical framework also cannot address the cultural and cross-cultural dimensions of the phenomenon without extending its methodology beyond the WEIRD samples that currently dominate the hyperscanning literature. The cross-cultural findings reported in §12 are philosophical and anthropological rather than empirical; a genuinely adequate empirical research programme would need to test the GRB account's predictions across the cultural contexts identified in that section, and would need to develop methodology sensitive to the culturally specific forms that relational co-evolution takes in different traditions.

14.4 What the Hermeneutic Re-reading Can and Cannot Say

The hermeneutic re-reading of the classical happiness concepts—the GRB transformations of virtue, *phronesis*, *philia*, flow, *ataraxia*, *apatheia*, Maslow's hierarchy, SDT, Frankl's meaning, subjective well-being, and PERMA—can say the following:

Each of the classical concepts is transformed, rather than simply refuted, by the relocation of the subject of flourishing from the individual to the relational field. The classical concepts retain their genuine insights—the Aristotelian account of virtue as developed through practice, the Stoic insight into the relationship between vulnerability and suffering, Csikszentmihalyi's account of the skill-challenge balance as a condition for optimal experience—while shedding the individualist presuppositions that have limited their application to shared happiness. The

hermeneutic result is not the rejection of the classical tradition but its extension and completion.

The hermeneutic re-reading cannot claim that the GRB transformations of the classical concepts are the only possible transformations, or that they are fully adequate to the richness of the original concepts. Each subsection of §11 has been, of necessity, a compressed and selective reading of concepts that have generated centuries of philosophical commentary; the GRB transformation has focused on the single dimension most relevant to the present paper's argument, and has inevitably missed dimensions of the original concepts that a more complete treatment would address. The hermeneutic task this paper has begun is not complete; it is an opening of a conversation that future work must continue.

14.5 Three Concentric Circles

The paper closes its conclusions with an image that the framework does not generate but that the framework's convergent findings suggest. The happiness of the shared flower, examined from the multiple perspectives of this paper, appears in the form of three concentric circles.

The innermost circle is the moment itself: the contingent event, the act of sharing, the resonance of joint attention, the felt quality of the happiness that arises from the *between*. This circle is the phenomenological circle—the circle of experience, of the living moment in which the relational field's co-evolutionary activity presents itself to the individuals who participate in it. It is the circle that the series' literary envois have always inhabited, from the rose of Paper IX to the red silk of Paper XIII [37, 38].

The middle circle is the relational field: the accumulated history of shared contingent events, the shared attractor landscape built through a lifetime of co-evolutionary activity, the *between* that has become, through the patient work of shared life, a home. This circle is the dynamical circle—the circle of the coupled system's trajectory through its phase space, the circle in which the holonomy of the shared life accumulates. The moment of the shared flower belongs to this circle as a relational spike: a small but real modification of the attractor landscape, a tiny increment of the holonomy that, over a lifetime of such increments, constitutes the depth of a shared life.

The outermost circle is the relational field's embeddedness in the wider social, cultural, and material world: the community, the tradition, the economic structure, the political order that either supports or undermines the conditions for intimate co-evolution. The Ubuntu framework has reminded us that the dyadic relational field is not self-sufficient but is constituted within and sustained by wider relational communities; the political-economic analysis implicit in §13.4 has reminded us that the conditions for relational flourishing are not given by nature but produced or destroyed by social and economic structures. The happiness of the shared flower is, ultimately, possible only in a world that provides the material, social, and cultural conditions for the cultivation of joint attention, timely sharing, and the non-possessive participation in the relational field's co-evolutionary activity.

The three circles of relational *eudaimonia*. Relational *eudaimonia* has three concentric dimensions: the phenomenological (the lived moment of shared happiness, arising from the *between*), the dynamical (the accumulated attractor landscape of a shared life, built through the

cumulative STDP of shared contingent events), and the political-communal (the wider relational and material conditions that make the cultivation of intimate co-evolution possible). A complete account of relational happiness must attend to all three, and a complete practice of relational happiness must cultivate all three—which is to say, it is not only an intimate practice but also, irreducibly, a political and communal one.

14.6 Why This Paper Has No Synthetic Conclusion

The reader who has reached this point may have noticed that the paper has not provided the kind of synthetic conclusion that academic papers typically provide: a paragraph or two that draws together the paper's main arguments into a unified summary, restates the paper's central thesis in its final and most complete form, and gestures toward the future work that the paper's findings make possible.

The absence of such a conclusion is not an oversight but a philosophical choice—the same choice that [Paper IX](#) made and that the series' formalism requires [37]. A synthetic conclusion would be a gesture toward the kind of unified, complete, fully stated truth that the GRB framework holds to be unavailable: the kind of truth that would require a metalanguage standing above all the frameworks that the paper has deployed, a view from nowhere that could survey the entire philosophical landscape and declare what the final answer is. The GRB framework holds, with Lacan and the Daoist tradition alike, that no such metalanguage exists—that the truth of the phenomenon is not to be found in any single framework's account but in the ongoing dialogue between frameworks, each of which illuminates something the others cannot see.

The happiness of the shared flower is not fully captured by the philosophical framework's account of the *between*, nor by the formal framework's account of coupled oscillators and relational STDP, nor by the neuroscience of inter-brain synchrony, nor by the phenomenological description of resonance and depth, nor by the hermeneutic transformations of the classical concepts, nor by the cross-cultural encounter with *ma* and Ubuntu. It is captured by all of these together, in their dialogue and their tension, in what they illuminate and in what they cannot say. The truth of relational happiness is polyphonic: it requires all the voices, and it is not reducible to any one of them.

This is the paper's final claim—not a claim about the nature of relational happiness but a claim about the nature of the philosophical inquiry into it: that such an inquiry is necessarily incomplete, that its incompleteness is not a failure but a fidelity to the complexity of the phenomenon, and that the right response to this incompleteness is not the synthesis that closes the inquiry but the continued practice—of shared attention, of timely sharing, of co-evolutionary receptivity, of non-possessive participation in the relational field's generative activity—that keeps the inquiry alive.

Envoi: Back to the Flower

There is still a flower on the path.

It has not been waiting for the paper to finish. It has been there all along—contingent, unhurried, belonging to no one—while the paper moved through its ontologies and its equations, its hyperscanning protocols and its hermeneutic transformations. It was there when the paper began, and it is here now, and the paper's long traversal of the philosophical landscape has not made it more or less beautiful than it was. What the traversal has done—what it was always trying to do—is to make visible the structure of what happens when it is shared: the invisible geometry of the *between*, the accumulated holonomy of a shared attentive life, the relational field's quiet work of generating, from the raw material of contingent beauty, the happiness that neither person could produce alone.

The flower is brief. It will be gone before the week is out—perhaps before the day is done. This is not a tragedy but a fact, and the paper has tried to show that the right response to this fact is not the clutching that destroys what it tries to preserve, not the anxiety that raises the threshold until nothing can enter, not the melancholy that attends to the wilting rather than to the root. The right response is the sharing: the act by which the flower is introduced into the relational field and transformed—in the moment, and permanently—into a relational event, a tiny increment of the holonomy that constitutes a shared life. The flower passes; the modification remains. The flower is brief; the *between* endures.

The between endures not because it is invulnerable—it is not; it can be starved of joint attention, degraded by possessive extraction, destroyed by the accumulated weight of unshared contingency—but because it is generative. It generates, from what enters it, more than what entered: the flower yields not only the moment of shared happiness but the structural modification that deepens the attractor landscape, expands the basin of attraction, lowers the threshold for the next shared event. The *between* endures because it is not a container that holds things but a process that transforms them—a dynamical field that takes the contingent events of a shared life and weaves them, through the patient work of co-evolutionary activity, into the fabric of a shared world.

This is what she showed me.

Not in any single moment—not in any dramatic revelation or carefully staged encounter—but in the long, quiet, daily practice of shared attention that has constituted, over the years of our shared life, the *between* in which I now live. She showed me, by the patient example of her attentiveness, that the flower on the path is not mine and not hers but ours: that it belongs to the relational field we have constituted together, that its beauty is generated by that field rather than by either of us, that the happiness it gives is the happiness of the *between* signalling its own generative health.

She showed me, by the quality of her co-presence, what relational flow is from the inside: the particular quality of time that arises when two people sit together, doing nothing, in the

wordless fullness of a shared present. She showed me that the silence between two people can be as generative as the most articulate sharing—that *ma*, the generative interval, is not the absence of communication but its most essential form.

She showed me—and this the paper has tried to articulate, in all its formal and philosophical complexity—that happiness is not something one achieves but something one receives: that it arises from the *between*, as a gift of the relational field's co-evolutionary activity, when the conditions for its arising have been cultivated with sufficient patience and care.

For her, therefore, this paper. For the girl of the forest, who loves the woods and the long road of travelling; who showed me, on a path neither of us had walked before, a flower neither of us had seen; who turned toward me at that moment with the particular quality of attention that I now know is the lowering of the relational threshold, the invitation to joint attention, the constitutive act by which a contingent event becomes a relational event and a relational event becomes, in its small and irreversible way, a modification of the *between* we have been building together.

We did not know, then, what was happening. We know now—or rather, this paper has tried to know, in the limited and multi-perspectival way that knowing is available to philosophical inquiry—what was always already happening: that the flower was entering a relational field that had been constituted through the accumulated co-evolutionary activity of everything we had already shared; that the act of sharing it was triggering, at multiple levels simultaneously, the co-evolutionary dynamics that the paper has spent all its length trying to describe; that the happiness that arose was the emergent signal of the relational field's generative activity, the field's way of telling both of us that it was flourishing.

The flower was ours.

Not because either of us claimed it—not because the claiming of shared objects is the source of relational happiness, which it is not—but because the act of sharing it, without claiming it, had made it so. The flower belonged to the *between*, as all shared contingent events belong to the *between*: not possessed by either, not divided between both, but held in the generative interval of a shared attention that transforms whatever it receives.

偶然相遇，此刻与你分享，感受到了幸福。

A chance encounter—and this moment, shared with you, is happiness.

There is still a flower on the path.

Look.

For her—
the girl of the forest,
in whose attention I first learned
that the flower on the path
was always already ours.

本乎此心，自成永恒。
Rooted in this heart, it becomes eternal of itself.

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感谢那一位纯粹、自然、坚韧、智慧的"森林女孩"。

My deepest gratitude to the one I call the forest girl—pure, natural, steadfast, and wise. May we share many more happy contingencies together.

但愿世界上所有有趣的人，在反复的日常生活中，受于偶然，得之幸福。

And may all the interesting people in this world—caught in the repetitions of ordinary life—find, through contingency, their happiness.

References

- [1] Aristotle. *Nicomachean Ethics*. Cambridge University Press, Cambridge, 2000. Ed. and trans. Roger Crisp.
- [2] Marcus Aurelius. *Meditations*. Oxford University Press, Oxford, 2002. Trans. A. S. L. Farquharson.
- [3] Guo-qiang Bi and Mu-ming Poo. Synaptic modifications in cultured hippocampal neurons: Dependence on spike timing, synaptic strength, and postsynaptic cell type. *Journal of Neuroscience*, 18(24):10464–10472, 1998.
- [4] John Bowlby. *Attachment and Loss, Vol. 1: Attachment*. Basic Books, New York, 1969.
- [5] Martin Buber. *I and Thou*. Charles Scribner's Sons, New York, 1970. Trans. Walter Kaufmann; orig. *Ich und Du*, 1923.
- [6] Confucius. *The Analects*. Oxford University Press, Oxford, 1998. Trans. D. C. Lau.
- [7] Mihaly Csikszentmihalyi. *Flow: The Psychology of Optimal Experience*. Harper & Row, New York, 1990.
- [8] Edward L. Deci and Richard M. Ryan. The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, 19(2):109–134, 1985.
- [9] Suzanne Dikker, Lu Wan, Ilan Davidesco, Lisa Kaggen, Matthias Oostrik, James McClintock, Joanna Rowland, Georgios Michalareas, Jay J. Van Bavel, Mingzhou Ding, and David Poeppel. Brain-to-brain synchrony tracks real-world dynamic group interactions in the classroom. *Current Biology*, 27(9):1375–1380, 2017.
- [10] Albert Einstein, Boris Podolsky, and Nathan Rosen. Can quantum-mechanical description of physical reality be considered complete? *Physical Review*, 47(10):777–780, 1935.

- [11] Epicurus. *The Epicurus Reader: Selected Writings and Testimonia*. Hackett, Indianapolis, IN, 1994. Trans. and ed. Brad Inwood and L. P. Gerson.
- [12] Ruth Feldman. Parent–infant synchrony: Biological foundations and developmental outcomes. *Current Directions in Psychological Science*, 16(6):340–345, 2007.
- [13] Viktor E. Frankl. *Man’s Search for Meaning*. Beacon Press, Boston, MA, 1959.
- [14] Hans-Georg Gadamer. *Truth and Method*. Continuum, London, 2, rev. edition, 2004. Trans. revised by Joel Weinsheimer and Donald G. Marshall; orig. *Wahrheit und Methode*, 1960.
- [15] Wulfram Gerstner, Richard Kempter, J. Leo van Hemmen, and Hermann Wagner. A neuronal learning rule for sub-millisecond temporal coding. *Nature*, 383:76–78, 1996.
- [16] Uri Hasson, Asif A. Ghazanfar, Bruno Galantucci, Simon Garrod, and Christian Keysers. Brain-to-brain coupling: A mechanism for creating and sharing a social world. *Trends in Cognitive Sciences*, 16(2):114–121, 2012.
- [17] Martin Heidegger. *Being and Time*. Harper & Row, New York, 1962. Trans. John Macquarrie and Edward Robinson; orig. *Sein und Zeit*, 1927.
- [18] Joseph Henrich, Steven J. Heine, and Ara Norenzayan. The weirdest people in the world? *Behavioral and Brain Sciences*, 33(2–3):61–83, 2010.
- [19] Yoshiki Kuramoto. *Chemical Oscillations, Waves, and Turbulence*. Springer, Berlin, 1984.
- [20] Jacques Lacan. *Écrits: The First Complete Edition in English*. W. W. Norton, New York, 2006. Trans. Bruce Fink; orig. *Écrits*, 1966.
- [21] Laozi. *Tao Te Ching*. Penguin, Harmondsworth, 1963. Trans. D. C. Lau.
- [22] Tengwen Liu, Hirofumi Saito, and Misato Oi. Role of the right inferior frontal gyrus in turn-taking: A dual-eeeg study. *Cerebral Cortex*, 33(1):1–12, 2023.
- [23] Wolfgang Maass. Networks of spiking neurons: The third generation of neural network models. *Neural Networks*, 10(9):1659–1671, 1997.
- [24] David Marr. *Vision: A Computational Investigation into the Human Representation and Processing of Visual Information*. W. H. Freeman, San Francisco, CA, 1982.
- [25] Abraham H. Maslow. *Motivation and Personality*. Harper & Row, New York, 1954.
- [26] John S. Mbiti. *African Religions and Philosophy*. Anchor Books, Garden City, NY, 1970.
- [27] Maurice Merleau-Ponty. *Phenomenology of Perception*. Routledge, London, 1962. Trans. Colin Smith; orig. *Phénoménologie de la perception*, 1945.
- [28] Thaddeus Metz. Ubuntu as a moral theory and human rights in south africa. *African Human Rights Law Journal*, 11(2):532–559, 2011.
- [29] Roy Mukamel, Arne D. Ekstrom, Jonas Kaplan, Marco Iacoboni, and Itzhak Fried. Single-neuron responses in humans during execution and observation of actions. *Current Biology*, 20(8):750–756, 2010.

- [30] Kitaro Nishida. *An Inquiry into the Good*. Yale University Press, New Haven, CT, 1990. Trans. Masao Abe and Christopher Ives; orig. *Zen no kenkyū*, 1911.
- [31] Stephen W. Porges. *The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communication, and Self-Regulation*. W. W. Norton, New York, 2011.
- [32] Jean-Paul Sartre. *Being and Nothingness: An Essay on Phenomenological Ontology*. Philosophical Library, New York, 1956. Trans. Hazel E. Barnes; orig. *L'Être et le néant*, 1943.
- [33] Martin E. P. Seligman. *Flourish: A Visionary New Understanding of Happiness and Well-being*. Free Press, New York, 2011.
- [34] Steven H. Strogatz. Exploring complex networks. *Nature*, 410:268–276, 2001.
- [35] Wei-ming Tu. *Confucian Thought: Selfhood as Creative Transformation*. SUNY Press, Albany, NY, 1985.
- [36] Wanhong. Responding to the crises of symbol and subject in modernity: Towards a generative nomos of relational presence. SSRN Working Paper 5752104, 2024.
- [37] Wanhong. The sustainability of intimacy: Poetic generativity and generative justice. Philosophy of Intimacy and the Theory of Justice, Paper IX. Working draft, 2025.
- [38] Wanhong. The causality of the non-binding vow: On trust, promise, and the generation of expectation in the absence of the other's sword. Philosophy of Intimacy and the Theory of Justice, Paper XIII. Working draft, 2026.