Philosophy of Intimacy and the Theory of Justice · Paper X

The Joint Attention of Value and the Creation of Language

A Relational Dynamical Grammar

[Working Draft]

On the Co-Perception of What Has No Name Yet,
the Reflexive Generation of the Subject,
and the Practice of a Good That Cannot Be Guaranteed

Wanhong

Working draft, not for citation or circulation

道可道，非常道；名可名，非常名。

The way that can be spoken is not the constant way;
the name that can be named is not the constant name.

二人同心，同心之言，其臭如兰。

When two are of one heart, the words of that one heart
are fragrant as orchid.

Of that which one cannot speak, two may yet, together,
bear witness.

《道德经》 *Daodejing*, ch. 1 ;《周易·系辞》 *Xici* ; and a remark of the author's own.

For her,

with whom the first name was made
that no one else could read,

and in whose eyes I first saw
that I had been seen seeing.

死生契闊，与子成说。

To the one I love most.

Abstract

This paper addresses the question prior to that of its predecessor. The prior paper examined whether a generative cycle is good and whether it is sustainable; the present paper examines the antecedent question of how relation and value are constituted at all, how a value not yet named comes to be, and how the language by which a bond subsists is made. The method proceeds in order of grounding. It begins in phenomenology, with the datum, prior to theory, in which two persons co-apprehend a value generated between them and not yet symbolised. From the description of that datum it derives an ontology (relation as the being of a generative system, grammar as the manifestation of the system's dynamics, value as its phenomenon) in which the phenomenon reflexively reconfigures the dynamics that produce it, and the subject is generated within the cycle it generates. The formal epistemologies are admitted only thereafter: a quantum-structural relational grammar, employed strictly as an epistemic model and not as a physical hypothesis, in which co-apprehension is a participatory measurement that generates rather than registers its value; and, symmetrically, the political-economic thesis that the circulation of value reconfigures the subject that creates it, alienation and self-realisation being the negative and positive phase of one reflexive cycle, distinguished by the sign of an independently definable reproduction surplus. These are distinct symmetry-broken phases of one abstract structure, which no framework possesses externally; their plurality is established as the method dialectical materialism requires of a totality not yet complete, rather than as eclecticism. The paper concludes in a practice and an ethics. The practice is not the construction of a grammar but the cultivation of a field within which a grammar admits of continual joint reconfiguration; and the ethics turns on the result that no finite subject can guarantee the goodness of its own practice, a subject that could having traversed the is–ought gap and become the infinite reason the series denies. It is the impossibility of that guarantee that constitutes the good as a matter of ethics rather than calculation, and as an unfinished process rather than a possessible state.

Keywords: joint attention; relational ontology; reflexive generation of the subject; alienation and geometric phase; the is–ought gap.

Contents

1 Introduction **8**

2 Background and Theoretical Frameworks **9**
- 2.1 Joint attention . . . 9
- 2.2 The grammatical modelling of interaction . . . 9
- 2.3 The ontology of value . . . 10
- 2.4 The quantum-structural modelling of cognition and the social . . . 10
- 2.5 Relational and process ontology . . . 11
- 2.6 The method of cross-disciplinary unification . . . 11

3 The Three Registers and the Emergence of Value **12**
- 3.1 The three registers . . . 12
- 3.2 The registers as coupled systems . . . 12
- 3.3 Value as an emergent of the coupled dynamics . . . 13

4 The Phenomenology of Nameless Co-Generation **14**
- 4.1 The datum described . . . 14
- 4.2 Joint attention at its limit, and the insufficiency of the cognitive-scientific model 15
- 4.3 The sense in which the value is nameless . . . 16
- 4.4 The constitutive identity of apprehension and generation . . . 16

5 The Formal Structure of the Datum **17**
- 5.1 Simultaneity as constitutive medium . . . 17
- 5.2 Mutual witness as reflexive and constitutive . . . 17
- 5.3 Directedness upon an opening . . . 18
- 5.4 The constitutive identity of apprehension and generation . . . 18
- 5.5 The structure stated . . . 18

6 The Ontology of the Generative System **19**
- 6.1 Relation, grammar, and value as aspects of one system . . . 19
- 6.2 The ontological status of grammar . . . 20
- 6.3 The reflexive structure . . . 20
- 6.4 The commitments and exclusions of the ontology . . . 21

7 The Quantum-Structural Articulation of the Relational Grammar **22**
- 7.1 Delimitation of the claim . . . 22
- 7.2 The relational state as superposition . . . 23
- 7.3 Co-apprehension as participatory measurement . . . 23
- 7.4 Generation as collapse with reconfiguration of the state space . . . 24
- 7.5 Geometric phase . . . 25
- 7.6 Enumerability and non-possession . . . 25

8 The Formal Modelling of the Value Cycle, and the Question of the Other **26**
8.1 The unified form of the difficulty . . . 26
8.2 The standard tools can be made adequate . . . 27
8.3 The shared presupposition, and the identity of the field-theoretic and measurement rescues . . . 27
8.4 The presupposed structure as metalanguage, and the regress of the Other . . . 28
8.5 Background-independent generativity as the form of the barred Other . . . 29
8.6 The dilemma restated . . . 30

9 The Political Economy of the Reconfigured Subject **30**
9.1 The reflexive structure in the register of production . . . 31
9.2 The negative phase: the alienated reconfiguration . . . 31
9.3 The positive phase: the generative reconfiguration . . . 32
9.4 The non-circular criterion of the phase sign . . . 32
9.5 The subject as generated within the cycle . . . 33
9.6 The identity of the reconfigured subject as parallel transport . . . 33

10 Symmetry-Breaking and the Cognition of the Unbroken Structure **34**
10.1 The disciplines as symmetry-broken phases . . . 35
10.2 The paradox of the section . . . 35
10.3 The unbroken structure as abductively posited . . . 36
10.4 Holonomy as the proposed cross-phase invariant . . . 36
10.5 The cognition of the unbroken structure as the traversal of the phases . . . 37
10.6 The dialectical-materialist ground of the polyphony . . . 37

11 Praxis: The Cultivation of a Generative Field **38**
11.1 The exclusion of the external operator . . . 38
11.2 Cultivation of a field in place of construction of a grammar . . . 39
11.3 The subtractive character of the practice . . . 39
11.4 An illustrative case . . . 40
11.5 The internal criterion . . . 41

12 The Matter of the Field, and the Conditions of a Just Eudaimonia **42**
12.1 The matter of the field . . . 42
12.2 The fabric is transversal across the registers . . . 42
12.3 The two conditions of a good field . . . 43
12.4 Happiness is not the criterion . . . 44

13 Exploitation in Symbolic Generation, and Generative Justice **44**
13.1 From non-possession to the means of symbolic generation . . . 45
13.2 Possession as exploitation, guidance as generative justice . . . 45
13.3 Symbolic exploitation across the three registers . . . 46
13.4 The poem and the reform of language . . . 46
13.5 The two forms of the failure of the good . . . 47

14 The Unguaranteeability of the Good **47**
14.1 The result stated . . . 48
14.2 The guarantee as a crossing of the is–ought gap . . . 48
14.3 Unguaranteeability as the condition of ethics . . . 49
14.4 The good as unfinished process . . . 50

15 Conclusions at the Boundaries of the Frameworks **50**
15.1 From phenomenology . . . 51
15.2 From ontology . . . 51
15.3 From the quantum-structural grammar . . . 51
15.4 From the formal-modelling dilemma . . . 52
15.5 From political economy . . . 52
15.6 From the account of symbolic justice . . . 52
15.7 From the practice and its ethics . . . 53
15.8 The absence of a single conclusion . . . 53

Envoi: The Word That Was Made **54**

Acknowledgements **54**

A Geometric Phase: A Technical Sketch **55**

1 Introduction

This paper is the tenth in a series on the philosophy of intimacy and the theory of justice. The prior papers established a framework in which the goodness of a relation is read in the geometry of its cycles of value, the good cycle distinguished from the vicious by the sign of an accumulated phase, and they closed on a question they did not resolve: that the joint creation of value presupposes that two persons can jointly recognise what value is being created, and that the language by which a bond subsists intervenes in that recognition. The present paper addresses the question prior to the goodness of a cycle, namely how relation and value are constituted at all, and it does so by treating three matters together: the constitution of value, the mechanism by which two persons jointly apprehend it, and the role of symbolisation, of the making of language, in that apprehension.

The central thesis is stated here in advance of its development. Value is not a property antecedently resident in an object or a relation, and it is not the unsymbolisable remainder of the Real that any naming would falsify. Value is a phenomenon emergent on the coupled dynamics of the three Lacanian registers, the Real, the Symbolic, and the Imaginary, transversal across the three and localisable in none. Joint attention is the mechanism of its participatory generation: two persons do not detect an antecedent value but generate it in the manner of their attending. And symbolisation is internal to its sustenance rather than opposed to it: a symbolisation that sustains the coupling of the Symbolic with the Real, the poetic, regenerates the value, while a symbolisation that severs that coupling, the settling, extinguishes it. The making of language is, on this account, not the enemy of the nameless but the medium of the value's recurrent regeneration.

The method of the paper proceeds in order of grounding, and the order is substantive rather than expository. The paper begins by establishing the structure within which value is located, the three registers as coupled systems (§3); it describes, phenomenologically and without explanatory supplement, the datum of co-apprehension (§4, §5); it derives the ontology that the datum requires (§6); and only then does it admit the formal apparatus, the quantum-structural articulation of participatory measurement (§7). It next confronts the limit of formal modelling directly, in a dilemma that conditions the entire formal programme (§8); develops the political economy of the reflexively reconfigured subject (§9); specifies the relation among the disciplinary frameworks as symmetry-broken phases of one structure (§10); and concludes in a practice (§11) and an ethics (§14), terminating in plural conclusions rather than a synthesis (§15). The motivation for admitting the formal apparatus last is that each formal system is a settled symbolic apparatus imported from a domain in which its results are already cashed; to introduce it before the phenomenon is described is to expend, in advance, a determination the description has not underwritten, which is the operation the series identifies as settling failure. The apparatus is to be earned from the phenomenon and not expended upon it.

The contribution of the paper is fourfold. First, it supplies an ontology of value as an emergent of coupled registers, which yields a dynamical account of why the settling of value into pure symbol extinguishes rather than merely impoverishes it. Second, it articulates the participatory generation of value in the formal structure of quantum measurement, employed strictly as an epistemic model. Third, it isolates and examines a dilemma in the formal mod-

elling of value: that the subject who creates value is reconfigured within the cycle of value, so that the generating mechanism is rewritten by its own products, with the consequence that the standard formal tools, the grammars of the Chomsky hierarchy and the fixed-law dynamical systems, are inadequate in a manner that is structural rather than incidental. Fourth, it grounds an ethics of the unguaranteeable good in an argument from the is–ought gap. The next section situates these contributions with respect to the frameworks on which they draw and against which they are defined.

2 Background and Theoretical Frameworks

The paper draws on, and defines itself against, several established frameworks. This section surveys them and states the paper's position with respect to each, in the order in which they enter the subsequent development. The survey is organised under six headings: joint attention, the grammatical modelling of interaction, the ontology of value, the quantum-structural modelling of cognition, relational and process ontology, and the method of cross-disciplinary unification.

2.1 Joint attention

The concept of joint attention originates in developmental psychology, where it designates the triadic structure in which two subjects orient together toward a shared object, each aware of the other's orientation [34, 35]. In Tomasello's account the capacity for joint attention is foundational for the acquisition of language and culture, the shared orientation toward a third term being the condition under which symbols acquire their intersubjective stability [34]. The phenomenological tradition supplies a distinct but compatible account of intersubjectivity, in which the other is given not as an inferred subject behind a body but in a primordial attunement of embodied subjects: Husserl's analysis of intersubjective constitution [18], Merleau-Ponty's account of intercorporeality, in which two bodies are attuned prior to any concept [27], and Zahavi's systematic development of the phenomenological position [38].

The present paper retains the concept and the lineage but displaces the structure. The joint attention of the developmental account is triadic and objectual: its third term is an object antecedently present in the world. The co-apprehension of value treated here requires a joint attention whose third term is not an antecedent object but a value in the course of emergence, transversal across the registers and resident in none. This is joint attention at a limit the developmental account does not reach, more adequately described by the phenomenology of intercorporeality and by the psychoanalytic account of an attention organised around a void; the prior paper of this series established the corresponding mechanism at the constitution of the subject, and the present paper displaces it to the constitution of a value between subjects.

2.2 The grammatical modelling of interaction

The treatment of structured generativity by formal grammars descends from the Chomsky hierarchy, which classifies grammars and their languages by the form of their production rules, from the regular through the context-free and context-sensitive to the recursively enumerable [8, 16]. The hierarchy and its associated automata supply the standard formal vocabulary for

generative structure, and the series has employed probabilistic context-free grammars in this vocabulary to model the recursion of generative justice [10, 11]. The modelling of interaction specifically, as distinct from the generation of strings, has been pursued in game-theoretic and dialogical formalisms and in the various interaction grammars of computational linguistics, in which the units generated are not sentences but moves in a structured exchange.

The present paper employs the grammatical vocabulary, in the sense that it treats the dynamics of a relation as a generative grammar, the relational grammar of §6. But it argues, in §8, that the relation it treats exhibits a feature no grammar of the Chomsky hierarchy accommodates: the production rules are themselves rewritten, within the process of generation, by what the process generates. This feature is shown to be orthogonal to the hierarchy rather than a position within it, and the consequence for the formal programme is examined at length.

2.3 The ontology of value

The paper engages several traditions in the theory of value. In the Marxian tradition, value is not a natural property but a social form, generated in production and circulation, and capable, under the wage relation, of turning against and dominating its producer: the analysis of value, the commodity form, and alienated labour in the *Manuscripts* and in *Capital* [24–26]. In the psychoanalytic tradition, value is bound to the economy of desire and enjoyment, organised around the objet a and jouissance of the Lacanian registers [12, 14, 19–21]. In the tradition of generative justice, value must be retained by and returned to those who create it, the criterion of justice lying in the circulation of value through the generative network rather than its extraction from it [11]. And the phenomenological theory of value, in Scheler's non-formal ethics, treats values as given in feeling, in a stratified order, irreducible to the goods that bear them [32].

The present paper does not adopt a realism in which value is an antecedent property awaiting detection, nor a pure constructivism in which value is exhausted by its symbolic positing. It advances, in §3 and §6, an ontology of value as a phenomenon emergent on the coupled dynamics of the three registers, transversal across them and reducible to none, and it relocates the three registers of value the series has employed, the imaginary, the symbolic, and the real, as aspects internal to this emergent. The Marxian account of the reconfiguration of the producer by the product is taken up, in §9, as a realisation of the paper's reflexive structure in the register of political economy.

2.4 The quantum-structural modelling of cognition and the social

The application of the formal structure of quantum theory to cognition and decision, independently of any claim concerning a physical quantum substrate, constitutes the field of quantum cognition. Its results model order effects, interference, and contextuality in judgement and decision by the formal apparatus of state superposition, non-commuting observables, and basis-dependent measurement [1, 7]. The distinction on which the field rests, between the employment of quantum formalism as a mathematical structure and the assertion of a physical quantum substrate, is the distinction the present paper observes. Beyond cognition, the extension of quantum structure to social ontology has been proposed, most expansively by Wendt, who advances a literal quantum social science in which social phenomena are grounded in physical quantum processes [36]; the present paper does not adopt this literal position and is

to be distinguished from it explicitly. The geometric phase, which the series employs to characterise the good cycle, originates in this quantum context, in the phase a state accumulates around a loop in its space of rays [2, 3, 30].

The present paper employs quantum structure, in §7, strictly as an epistemic model of participatory generation, with the physical thesis explicitly declined. It diverges from quantum cognition in its object, treating the co-generation of relational value rather than individual judgement, and from literal quantum social science in declining the substrate claim. In §8 it considers, and examines the cost of, a more developed quantum-field-theoretic modelling of the dynamics, the assessment of which is one of the paper's principal formal contributions.

2.5 Relational and process ontology

The ontology the paper derives is a process ontology and a relational one, and it stands in a lineage. In Whitehead's process philosophy, the fundamental entities are not enduring substances but events or occasions of becoming, and what appears as a thing is an abstraction from a process [37]. In Simondon's philosophy of individuation, the individual is not given antecedently but is constituted in a process of individuation that does not exhaust the pre-individual field from which it arises, the individual and its associated milieu being generated together [33]. In Deleuze, difference and repetition are prior to the identities they generate, and the new is produced rather than reproduced [9]. These positions share the priority of process over substance, of generation over the generated, and of relation over the related terms.

The present paper's ontology, in §6, is continuous with this lineage and adds a determinate clause. Relation, grammar, and value are three aspects of one generative system, of which the subject is a product rather than an external premise; and the system's dynamics is reconfigured by its own products, the reflexive clause that distinguishes the paper's process ontology and that conditions the formal dilemma of §8.

2.6 The method of cross-disciplinary unification

The paper's final methodological commitment concerns the relation among the disciplinary frameworks it employs. Rather than subordinating them to a single master framework, or treating them as an eclectic assembly, it specifies them as symmetry-broken phases of one abstract structure, related as the realisations of one structure under the conditions of distinct disciplines. The figure of symmetry-breaking is borrowed from physics; the methodological position it supports, that no single framework possesses the whole and that the unbroken structure is cognised only across the phases and not from above, is developed in §10 and is there argued to be a dialectical-materialist rather than a relativist commitment. The geometric invariant proposed as conserved across the phases, the holonomy on which the good cycle turns, is advanced as the paper's most speculative conjecture and is left, as the argument requires, unsettled.

With the frameworks surveyed and the paper's position with respect to each stated, the development proceeds, beginning with the three registers as coupled systems.

3 The Three Registers and the Emergence of Value

The phenomenological datum of the following section is the co-apprehension, by two persons, of a value generated between them. The adequate description of that datum requires a prior account of the structure within which value is located, and the present section supplies it. The account is Lacanian in its terms and dynamical in its construal: the three registers of the Real, the Symbolic, and the Imaginary are introduced as three coupled systems, and value is specified as a phenomenon emergent on the dynamics of the coupled whole rather than as a state of any single register. This construal, developed below, determines the sense in which value is at once symbolisable and never exhausted by symbolisation, and thereby corrects a misconstrual to which the description is otherwise liable.

3.1 The three registers

Lacan distinguishes three registers, or orders, in which psychic and relational reality is structured [12]. The *Imaginary* is the register of the image, of identification and the specular relation, instituted in the mirror stage, in which the subject apprehends itself and the other under the aspect of a unified form and a captating likeness [22]. The *Symbolic* is the register of the signifier, of language, law, and the differential structure within which terms acquire determinacy through their relations to other terms; it is the order of speech and the social, and the order in which exchange, nomination, and the cashing of a term against others are possible [22]. The *Real* is the register of what resists symbolisation absolutely, what falls outside the signifier and returns always to the same place; it is approached through the concepts of *das Ding* and *objet a*, and is bound to *jouissance*, the enjoyment beyond the pleasure principle.

Two concepts of the Real require distinction, since the analysis of the following sections turns on it. *Das Ding*, the Thing, is the term of the early account in the *Ethics of Psychoanalysis*: the absolute Other of the subject, an originary void at the centre of the Real around which the subject's economy is organised and which no representation reaches [20]. *Objet a*, the object-cause of desire, is the term of the later account: not the object at which desire aims but the object that causes it, a remainder that falls from the field of the Other and functions as the cause of desire rather than its goal [14, 19]. The relation between the two is one of development rather than opposition: *objet a* may be construed as the objectalisation, within the economy of desire, of the void that *das Ding* names in the Real. *Jouissance* is the enjoyment associated with this register, transgressive of the pleasure principle, at once sought and unbearable, and it is the quantity that the later argument identifies as the carrier of the relational phase [14, 21].

3.2 The registers as coupled systems

In its late development Lacan presents the three registers as knotted, in the figure of the Borromean knot: three rings so linked that the severing of any one releases the other two [12, 21]. The present paper retains the interdependence the knot expresses but reconstrues it dynamically. The static topology of the knot is replaced by a dynamics of coupling: the Real, the Symbolic, and the Imaginary are treated as three coupled systems, each with its own internal dynamics and its own state, interacting through coupling terms by which the state of each conditions the evolution of the others.

The registers as coupled dynamical systems. The three registers are construed as three coupled dynamical systems. Each register possesses an internal dynamics and a state; the registers interact through coupling terms, such that the state of each conditions the evolution of the others. The interdependence Lacan expresses in the static figure of the Borromean knot, that the severing of any one ring releases the others, is reconstrued as the dynamical condition that the suppression of any one coupling alters the dynamics of the coupled whole. The construal is dynamical rather than topological: the registers are not three rings in a fixed linkage but three systems in continuous mutual conditioning.

3.3 Value as an emergent of the coupled dynamics

Value is specified, on this construal, as a phenomenon emergent on the dynamics of the coupled whole. It is not a state of the Imaginary alone, not a state of the Symbolic alone, and not a state of the Real alone; it is a collective mode of the three coupled systems, arising on their interaction and not localisable in any one of them.

Value as an emergent collective mode of the coupled registers. Value is not a state of any single register but a phenomenon emergent on the dynamics of the three coupled registers. Formally, where each register is a dynamical system and the registers are coupled, value corresponds to a collective observable of the coupled system, an order parameter that is non-zero only under non-vanishing coupling among the registers and that vanishes when any one coupling is suppressed. Value has accordingly an imaginary aspect (the idealised image, the captating form, the value invested in the likeness), a symbolic aspect (the nameable, exchangeable, cashable value), and a real aspect (the value organised around the void, bound to jouissance, irreducible to the signifier); but value is identical to none of these aspects and is exhausted by none. It is the collective mode in which the three are coupled.

The consequence that governs the subsequent analysis is the following. Since value is an emergent of the coupled dynamics, its reduction to any single register, the suppression of a coupling, extinguishes it. The reduction of value to the Imaginary is its collapse into idealisation, the vertiginous investment in a form that exhausts itself; the reduction to the Symbolic is its collapse into pure exchange, the cashing of the value as a settled token severed from the Real; the reduction to the Real is its collapse into an unsymbolisable remainder that cannot be held or shared. Each reduction suppresses a coupling and extinguishes the emergent. This supplies a dynamical account of a thesis the prior papers asserted: the settling of value into pure symbol, its severance from the Real, does not merely impoverish the value but extinguishes it, value being an emergent that the severance destroys.

This construal corrects a misconstrual to which the phenomenological description is otherwise liable, and which is addressed at §4.3. Value is not the unsymbolisable Real, the term that naming would kill; value is the emergent of the coupling of the Real with the Symbolic

and the Imaginary, and is therefore both symbolisable and inexhaustible by symbolisation. Two persons do symbolise value: they name it, they make private signs for it, they bring it into the Symbolic. The question is not whether value is symbolised but how. A symbolisation that sustains the coupling of the Symbolic with the Real, the poetic symbolisation of the later analysis, sustains the emergent; a symbolisation that severs the Symbolic from the Real, the settling symbolisation, suppresses the coupling and extinguishes it. The transversality of value across the three registers, its being an emergent of their coupled dynamics rather than a resident of any one, is the structure the following section's datum exhibits, and the structure to which the account of language in this series is addressed.

4 The Phenomenology of Nameless Co-Generation

This paper takes as its primitive datum a structure of experience that precedes every theoretical apparatus and to which every such apparatus must answer: the joint apprehension, by two persons, of a value that is being generated between them and that is not yet exhausted by symbolisation. The value is, in the terms of §3, an emergent of the coupled dynamics of the three registers, and the datum is its co-generation: a value with imaginary, symbolic, and real aspects, transversal across the three and resident in none. The structure is to be distinguished from three phenomena with which it is readily conflated, the agreement of two parties on a sign, the convergence of two gazes upon a shared object, and the exchange of a token whose content each party antecedently possesses. It is none of these, and the ground of the distinction is given in §3: each of the three is the reduction of value to a single register, the suppression of a coupling, which extinguishes the emergent. What is apprehended is in the process of generation; it is not yet, and will never be, exhausted by its symbolisation; and it is apprehended by each party under the aspect of being co-apprehended, the reciprocal awareness entering constitutively into what is generated. The methodological order of the paper follows the order of grounding. The phenomenological description is given first and without explanatory supplement (§4, §5); the ontology is then derived as the set of conditions under which the described structure is possible (§6); and the formal epistemologies (quantum-structural and political-economic) are introduced last, as the formal articulation of what the ontology establishes rather than as independent posits laid over the description (§7, §9). The motivation for this order is substantive rather than expository. Each formal apparatus is a settled symbolic system imported from a domain in which its results are already cashed; to introduce such an apparatus prior to the description is to expend, in advance, a determination the description has not yet underwritten, which is the structural form of what the prior paper of this series termed settling failure. The apparatus is accordingly earned from the phenomenon and not expended upon it.

4.1 The datum described

The following case fixes the datum in its minimal form. It is offered as a description of a recurrent structure of experience, not as an anecdote.

An illustrative case: the unnamed value. Two persons are engaged in unremarkable conversation, the arrangement of a shared meal, the route of an afternoon walk. At a determinate moment

the register of the exchange alters without announcement. A silence supervenes which is not the cessation of speech but a positive datum: a salience in the interval between them, apprehended by each as not deposited there by either. One party may, at a later time, attempt a name for it, *the beginning*; *the point at which I knew*, but the name is supplied retrospectively, is acknowledged by both as inadequate, and is treated by both as a record of the event rather than the event. What is given in the moment itself is not the content of what has arrived but the fact of its arrival; that the arrival is simultaneous for both; and that each apprehends in the other's expression the same arrival, such that the co-apprehension is internal to what is apprehended.

Reduced to its structure, the datum exhibits three features that the standard models of attention do not accommodate. The *first* is that the term apprehended is not an object antecedently present. In the developmental account of joint attention, the infant and caregiver orienting jointly toward a ball or an indicated bird [35, 38], there is a determinate third term, an object antecedently present in the world, upon which two lines of regard converge. The present structure has no such antecedent term. What is jointly apprehended is a value in the course of emergence on the coupled dynamics of the registers (§3): a generation in progress, transversal across the imaginary, symbolic, and real, and localisable in none. It is not that the term cannot be symbolised, but that its symbolisation, where it occurs, does not exhaust it, the real aspect of the emergent exceeding any signifier that names it. The *second* feature is that the apprehension is not a registration. Neither party detects a value antecedently present and awaiting detection; the value is not prior to the apprehension. The *third* feature is that the reciprocity of awareness is constitutive rather than cumulative. The structure is not the conjunction of two registrations (one party's apprehension of the term and, separately, that party's apprehension that the other apprehends it). The reciprocal awareness is itself a component of what is generated and a condition of its generation.

4.2 Joint attention at its limit, and the insufficiency of the cognitive-scientific model

The term *joint attention* is retained, on two grounds. The lineage is pertinent: the prior treatment in this series established joint attention as the mechanism through which two consciousnesses are mutually constituted and the subject is first formed (Paper V). And the structure at issue is continuous with that mechanism, displaced to a new term. The displacement is nonetheless decisive. The joint attention of developmental psychology is triadic and objectual: two subjects, one shared object, the geometry of two regards meeting at a thing. The co-apprehension of value requires a joint attention whose vertex is not an object but an opening, a convergence not upon a thing but upon a site at which something is not yet determinate. The structure is therefore not that of developmental joint attention but is more adequately described by a phenomenology of intercorporeality, in which two embodied subjects are attuned prior to the availability of a concept [27], and by the psychoanalytic account of an attention organised around a void rather than directed upon a thing.

The distinction is consequential and not terminological. The persistent error is the assimilation of the limit-structure to the standard case, the construal of the co-apprehension of value as the attainment, by two parties, of agreement upon a shared sign whose content is thereby settled. The error is not that the two parties symbolise the value; they do, and the making of

a shared sign for it is, as §3 establishes and the account of language in this series develops, internal to the value's sustenance. The error is the construal of that symbolisation as a *settling*: as the severance of the symbol from the Real, the cashing of the value as a determinate token whose content is exhausted in the signifier. Symbolisation of this kind suppresses the coupling of the Symbolic with the Real and extinguishes the emergent (§3.3); it is the operation the series identifies as settling failure. The contrary symbolisation, which sustains the coupling of the Symbolic with the Real, the poetic symbolisation of the later analysis (§11.3), does not extinguish the value but is the mode in which it is jointly held and recurrently regenerated. The structure to be described is therefore not the absence of a sign but a symbolisation that sustains rather than severs the coupling to the Real, a shared sign whose content is not exhausted in its being named.

4.3 The sense in which the value is nameless

The locution that the value is nameless, employed throughout the description, is to be understood in the determinate sense the preceding establishes, and not in the sense its surface suggests. The value is not nameless in the sense of being unsymbolisable, an unspeakable remainder of the Real that any name would falsify; that construal reduces value to a single register and is excluded by §3.3. The value is nameless in the sense that its symbolisation, which is possible and is undertaken, does not exhaust it: the value being an emergent transversal across the three registers, its real aspect exceeds any signifier that names it, such that the name is at once adequate as a sign held jointly and inadequate as an exhaustive determination. To say that the value is nameless is to say that no name closes it, not that no name reaches it. The two persons name the value, make a sign for it, bring it into the Symbolic; and the value, named, remains in generation, because the naming that sustains the coupling to the Real does not terminate the emergent but is one of the operations by which it is sustained. The description that follows is to be read under this correction throughout.

4.4 The constitutive identity of apprehension and generation

The three features converge on a single structural result, which is to be stated as the result it is rather than dissolved. In the standard case of perception, apprehension and generation are distinct: the object is present independently of its being perceived, and the perceiving contributes nothing to the object. In the described structure they are not distinct. The co-apprehension of the value, in the sense of §4.3, is identically its generation. The two parties do not detect a value and subsequently attend to it; in the joint sustaining of an attention whose term is not exhausted by its symbolisation, the value is generated. Apprehension and generation are one act.

This result determines the conditions to be discharged by the ontology. A value generated in the act of being co-apprehended cannot be an entity antecedent to its apprehension; its mode of being is not that of an object. An apprehension that generates its own term cannot be a registration of antecedent states; its mode of cognition is not representational. The phenomenological description thus constrains both the ontology of value (value is non-antecedent) and the epistemology of its apprehension (cognition is non-representational), and it imposes these constraints prior to the introduction of any formal apparatus. The apparatus introduced in §7

is accordingly the formal articulation of a structure the description has already established, and not an external warrant. The remainder of the paper is constrained by the datum fixed here: each subsequent construction is to be assessed by its adequacy to the co-apprehension of a value transversal across the registers, generated in the act of its joint recognition and not exhausted by its symbolisation, and to nothing of larger scope.

5 The Formal Structure of the Datum

The description of §4 is now analysed for its structure, within the descriptive attitude and without explanatory supplement. The objective is to exhibit the form already present in the datum, so that the ontology of §6 is constrained by a determinate structure rather than by an impression. The three features identified above compose a single structure, the components of which are mutually dependent in the manner set out below.

5.1 Simultaneity as constitutive medium

The togetherness of the co-apprehension is not the synchrony of two independently occurring events. On the construal as synchrony, each party would possess a distinct apprehension, the two apprehensions coinciding in time by attunement or chance. That construal is inadequate to the datum. In the structure as described, there are not two apprehensions that coincide but one apprehension that is irreducibly of two parties. The togetherness is not a relation obtaining between two antecedent awarenesses; it is the medium within which each awareness is first constituted. The apprehension of one party is internally determined by that party's apprehension of the other's apprehension, and conversely, such that neither awareness is well-defined independently of the other. This is the structure the prior treatment located at the constitution of the subject, where the first and second persons are mutually constituted rather than antecedently given and subsequently joined [6]; here the same structure obtains at the constitution of a value between two parties. The structure recurs at a higher level: in Paper V joint attention constitutes the persons, and here it constitutes the value the constituted persons sustain between them. The recurrence of the founding structure at successive levels is the first instance of a pattern the paper thematises in §10.

5.2 Mutual witness as reflexive and constitutive

The reciprocal awareness is reflexive: what each party apprehends includes the other's apprehension, and what is apprehended includes that reciprocal inclusion. The resulting regress, each party apprehends the term, apprehends the other apprehending it, apprehends the other apprehending its own apprehension, is not to be truncated but is the structural form of the density the description recorded. The reflexive witnessing is not a spectatorial relation to a completed fact; it is a component of the term's generation. Its function is constitutive: were the witnessing withdrawn, were one party to simulate apprehension while in fact absent, the term would not be generated, however exact the simulation. The structure is therefore not counterfeitable from a single side. This yields, at the level of description, the condition the ethics of §14 discharges: the value subsists only in a witnessing that is genuinely reciprocal, and is extinguished when one party becomes a spectator of, or an extractor from, the other's

investment.

5.3 Directedness upon an opening

The co-apprehension is directed, it has the intentional form of a directedness-upon, but its term is an opening, a site at which something is not yet determinate, rather than an object. The psychoanalytic tradition supplies an account of an attention organised around a void without filling it; the contemplative traditions supply several. The prior paper established the corresponding thesis in its own terms: real value, the value capable of endogenously bearing the positive phase of a good cycle, is the value organised around an absence and resistant to symbolisation. The present analysis adds that this organisation is, at its origin, joint: the void is co-encircled, attended by two parties conjointly. The nameless term is therefore not an object the parties have not yet named but an opening the parties jointly sustain. A consequence follows directly. To name the term, to fill the opening with a settled sign, terminates the generation; this is the pathology the prior paper identified as settling failure. The subsistence of the structure consists in the non-termination of the term, the sustaining of the opening, which is the condition the practice of §11 undertakes to tend.

5.4 The constitutive identity of apprehension and generation

The three features converge on the structural result that organises the paper. The co-apprehension of the nameless value is identically its generation; the epistemic operation and the ontological event are one. Conjoined with the third feature, this yields a structure of consequence. Because the directedness is upon an opening rather than an object, there is no antecedent value for the apprehension to copy; and because apprehension is generation, the value generated is conditioned by the manner of the apprehending. The manner of attending, the void around which, the register within which, the quality with which the opening is sustained, determines the value generated. There is no fact, antecedent to and independent of the joint apprehending, as to what the value is; the apprehending is not the measurement of an antecedent quantity but a participation that brings the quantity to determinacy. This is the structural antecedent of the formal model of §7, where it receives the articulation of a participatory measurement whose basis is selected in the manner of attending.

5.5 The structure stated

The structure is stated as a single result, to be discharged by the ontology of the following section.

The structure of co-apprehended value. In the founding datum, value is co-generated in co-apprehension, with four components: (i) the apprehension is irreducibly of two parties, the togetherness constituting the medium within which each awareness arises rather than a relation between antecedent awarenesses; (ii) the reciprocal witnessing is reflexive and constitutive, a component of the term's generation rather than a report upon a completed fact; (iii) the joint attention is directed upon a sustained opening rather than upon an object, such that settling it with a sign terminates it; and (iv) apprehension and generation are one operation, whence

the manner of the joint apprehending conditions the value generated. It follows that value, so structured, is not an entity antecedent to its co-apprehension, and that co-apprehension is not a representation of antecedent states: the datum determines a non-objectual ontology of value and a participatory epistemology of its apprehension, antecedently to the introduction of any formal apparatus.

This result is the constraint on what follows. The phenomenological analysis determines both the being of value and the mode of its cognition, in a determinate direction: away from the object and from representation, toward generation and participation. The following section discharges the first constraint, the ontological, by establishing what relation, grammar, and value must be in order that the datum of §4 be possible. The formal epistemologies are admitted only after that determination is made.

6 The Ontology of the Generative System

The phenomenology determines the task of the ontology. The task is not the general specification of what value or relation is, but the specification of what they must be in order that the datum of §4 be possible, a datum in which a nameless value is co-generated in co-apprehension, conditioned by the manner of a joint attending directed upon an opening. The ontology's theses are warranted as the conditions of that datum, and are not advanced beyond it. The section establishes three theses concerning the being of the generative system, each as a condition of the founding datum rather than as an independent posit, and concludes with the single structural feature, reflexivity, of which the two following sections supply distinct disciplinary realisations.

6.1 Relation, grammar, and value as aspects of one system

The construal of relation, grammar, and value as three entities standing in relations of causal or constitutive dependence, with a consequent question as to which is fundamental, is to be declined. That construal imports the externality the datum excludes: it posits an order of grounding among three separate items and thereby requires a standpoint external to all three from which their order is surveyed. The phenomenology affords no such standpoint. It affords a single event under three aspects, and the ontology specifies the aspects without dividing the event.

Relation, grammar, and value as three aspects of one generative system. Relation, grammar, and value are not three entities in relations of mutual foundation but three ontological aspects of a single generative system. Relation is the being of the system: the relational substance, that which is, not a phenomenon of a deeper term and not a representation. Grammar is the manifestation of the system's dynamics: not a description applied externally to the system in order to cognise it, but the form in which the system's dynamics manifests itself, the morphology of its movement. Value is the phenomenon of the system: the aspect of the generative system that emerges and admits of being witnessed. As aspects of one event rather than items

in a sequence, the three are co-temporal of necessity; there is no moment at which the relation obtains while the grammar and value do not, since they are one being under three regards.

This dissolves the circularity that would otherwise obtain. The objection that relation, value, and grammar each presuppose the others, so that none can be initiated, assumes them to be distinct items requiring sequence. They are not distinct items. They are the being (relation), the manifest dynamics (grammar), and the appearance (value) of one generative system, and one entity under three regards requires no sequence, as a body's being, its motion, and its visible aspect are not three items awaiting one another but one entity regarded in three ways. The three registers of value established in the prior paper, the imaginary, the symbolic, the real, are accordingly relocated as distinctions internal to the third aspect, articulations within the aspect termed phenomenon, and not as competitors to relation or grammar.

6.2 The ontological status of grammar

A consequence is to be drawn, as it governs the subsequent development. Grammar, in this ontology, is an ontological category and not an epistemic one. It is not the formal apparatus constructed by an observer in order to describe or predict the relation; that apparatus, the externalist's grammar, is a settling, a fixing of the dynamics into a surveyable rule-set, the operation §7 identifies as a form of possession. The grammar at issue is the self-manifestation of the dynamics: the form the generative movement assumes in moving, antecedent to and independent of any observer's attempt to fix it. The characteristic rhythm of two parties' being-together, the moves that are available to them and those that are not, the developing repertoire of private signs, is not an observer's description of their relation but the self-manifestation of the relation's dynamics. The grammar is in the movement, not in the notation.

This distinction supports a subsequent result. It permits the consistent assertion both that the relational grammar is real, being the system's own manifest dynamics, and that no notated grammar captures it, every notated grammar being an external settling that, in fixing the dynamics, falsifies the feature, open and continuing generation, constitutive of it. The grammar is, ontologically; it is non-possessible, epistemically; and §7 establishes that this non-possessibility is not a limitation of instruments but the formal signature of the relation's non-possessibility.

6.3 The reflexive structure

The structural feature that organises the paper, located phenomenologically in §5.4 and realised in distinct forms in the two following sections, is now stated ontologically. In a standard dynamical system the law of evolution is fixed: the state evolves, while the rule governing its evolution does not change in consequence of the evolution. The datum of §4 departs from this. There, apprehension was generation: the coming-to-be of the value was not the output of a fixed dynamics but an event whose manner conditioned what could subsequently obtain. Stated ontologically:

The reflexive reconfiguration of the dynamics by the phenomenon. The value, which is the phenomenon, does not merely issue from the grammar, which is the manifest dynamics; it reconfigures it. Each crystallisation of a nameless value into the relation alters the system's dynamics, modifying which moves are subsequently available, opening regions of the relational space that did not antecedently exist and foreclosing others. The generative system is one whose dynamics is reconfigured by its own products: the appearance reacts upon and reconfigures the movement that bore it. The system is therefore not one with a fixed law and a varying state, but one in which the law is itself transformed by what it produces, a self-modifying generativity.

Three consequences follow, each of which is discharged in the subsequent development.

The *first* is that the subject is generated within the cycle and is not antecedent to it. If the dynamics is reconfigured by its products, and if the parties to the relation are among the system's products, constituted, as the prior treatment held, in and through the relation rather than entering it complete, then the subject is not an external term standing outside the generative cycle and operating it. The subject is a product of the cycle it contributes to generating: a fixed point of the reflexive structure, not its external premise. There is no antecedently complete self that enters the relation in order to generate value; the self is, in part, what the relation's value-cycle generates. This is the antecedent that §9 develops into a political economy, the thesis that the circulation of value reconfigures the subject who creates it being Marx's, transposed here from the social to the ontological register.

The *second* is that the dynamics admits no external pre-enumeration. A system whose law is reconfigured by its products has no fixed law that an external observer could specify in advance of the system's operation, the subsequent law being generated within the operation, in the joint act, and not antecedently available. This is the ontological antecedent of the non-enumerability that §7 formalises: not the thesis that a super-physical process operates, but the thesis that any external fixing of the grammar fails because the grammar fixed is in the course of being generated, internally, by the generation the fixing would be required to anticipate.

The *third* is that the manner conditions the product without remainder. Since apprehension is generation and the dynamics is reconfigured by what it generates, the manner of the system's operation, the void around which, the register within which, the quality with which the opening is sustained, is not incidental to the product. There is no separation of a neutral content of value from the manner of its co-generation; the manner is constitutive. This is the antecedent of the result that the ethics of §14 is not an ethics of externally assessed outcomes, and that the practice of §11 is the tending of the manner, of the field and its curvature, rather than the manufacture of the product.

6.4 The commitments and exclusions of the ontology

The character of the ontology is to be stated, together with its exclusions. It is a process ontology, and a dialectical one: there is no value antecedent to the relation's movement, and no movement antecedent to the relation; there is one generative system, manifest as relation, grammar, and value, whose dynamics is transformed by its own appearing. It is continuous in this respect with the relational ontology of the mother paper, being is relational, the terms

are constituted in the relating, and adds the reflexive clause, that the relating is reconfigured by what it generates.

The ontology excludes three theses, and the exclusions are of equal standing with the commitments. It excludes substance: there is no value-substance, no relational substrate, subsisting beneath the system and persisting unchanged through its transformations; the three aspects are aspects of a movement, not properties of a thing. It excludes the external standpoint: there is no position external to the generative system from which its three aspects are surveyed and their order legislated, which is the ontological form of the absence of a metalanguage that the prior paper established, and which §10 discharges in addressing the cognition of the unbroken structure. And it excludes completion: the system is not a totality that is, but a totality in generation, its law in the course of being written; to treat it as complete, to notate its grammar and declare it captured, is the ontological form of settling, and, as §14 establishes, of alienation. These exclusions are not concessions. They are the conditions of the founding datum: a value antecedent as substance could not be co-generated; a system surveyable externally would not require the joint internal witnessing of which the datum consists; and a completed totality could generate nothing, least of all a value not yet named.

The ontology possesses a single structural signature, reflexivity: the reconfiguration of the dynamics by the phenomenon, of the producer by the product. The signature is, to this point, abstract, stated in the general terms of relation, grammar, and value. The two following sections supply two disciplinary realisations of this structure, the abstract structure being realised, under the conditions of distinct disciplines, in distinct and mutually irreducible forms. Under the conditions of formal epistemology it is realised as a participatory, quantum-structural grammar (§7); under the conditions of political economy it is realised as the circulation of value that reconfigures its subject (§9). Neither realisation is the truth of the other, and neither is the unbroken structure; they are two symmetry-broken phases of it, and the cognition of the unbroken structure they share, in the absence of the external standpoint the ontology excludes, is the matter of §10.

7 The Quantum-Structural Articulation of the Relational Grammar

The ontology of §6 establishes four conditions: value is not antecedent to its co-apprehension; apprehension is identically generation; the manner of apprehension conditions its term; and the dynamics is rewritten by the term it generates. A cognition satisfying these conditions cannot be representational, since representation presupposes an antecedent term; it is participatory, in the sense that the cognition is a component of the generation of what is cognised. The present section establishes that the formal structure of quantum measurement supplies a precise articulation of participatory cognition, and writes the relational grammar in that structure. The articulation is structural and epistemic, and its scope is delimited at the outset.

7.1 Delimitation of the claim

The structure of quantum theory is employed here as a formal model of participatory generation. No claim is advanced that intimate relation, joint attention, or the neural substrate is a quantum-physical system; no hypothesis is made concerning quantum coherence, entan-

glement, or physical collapse in any relational or cognitive substrate. The positions that do advance such claims, orchestrated objective reduction, and the literalist interpretation of quantum cognition, are not at issue, and the present argument is independent of their physical adjudication. The procedure is continuous with the series' prior use of probabilistic context-free grammars to model the recursion of generative justice [10, 11]: the assertion that a regenerative structure has the form of a branching process is an assertion about form and not about physical constitution, and the assertion that the co-apprehension of value has the form of a quantum measurement is of the same kind.

The quantum structure as epistemic model. Quantum structure is employed to articulate, in formal terms, the participatory character of co-generation established phenomenologically in §5 and required ontologically in §6. The relation asserted is a structural isomorphism at the level of epistemology and not a thesis concerning physical substrate. No claim of the paper depends upon relation or cognition being physically quantum; the quantum vocabulary is, in principle, replaceable by "the formal structure of participatory generation," for which quantum measurement is the developed exemplar. At the single point at which the structural model and the physics diverge, the question of enumerability, §7.6, the structure is retained and the physical thesis explicitly declined.

7.2 The relational state as superposition

Let the value-potential of a relation at a given moment be represented by a state $|\psi\rangle$ in a complex inner-product space $\mathcal{H}$, the relational state space. Let $\{|v_i\rangle\}$ be an orthonormal family of *determinate value-states*, the values the relation might come to bear, each $|v_i\rangle$ a candidate determinate value. The relational state is in general a superposition,

$$|\psi\rangle \;=\; \sum_i c_i\,|v_i\rangle, \qquad \sum_i |c_i|^2 = 1,$$

in which no single $|v_i\rangle$ is the value the relation determinately bears. This represents formally the ontological thesis that real value is not antecedent to its co-apprehension (§5.3). The interpretation of $|\psi\rangle$ is to be distinguished from a probability distribution over antecedently determinate values: the coefficients c_i do not encode ignorance of a value already settled but the genuine indeterminacy of a value not yet generated, for which no further specification of the present state resolves the indeterminacy, there being as yet no determinate term. The opening of §5.3, the site at which something is not yet determinate, is formally the superposition prior to its resolution.

7.3 Co-apprehension as participatory measurement

Joint attention is modelled not as a registration of $|\psi\rangle$ but as a *measurement* of it. A measurement is specified by a choice of observable, equivalently by a choice of orthonormal basis $\{|b_j\rangle\}$ of $\mathcal{H}$ in which the measurement is resolved; the basis is not fixed by the state but is selected, and

the selection corresponds to the manner of apprehension. This is the formal content of the thesis that apprehension is generation (§5.4): the measurement does not return an antecedent value but resolves the superposition into a determinate term. The decisive structural fact is the basis-dependence of the outcome. Expressed in the basis $\{|b_j\rangle\}$, the state is $|\psi\rangle = \sum_j d_j|b_j\rangle$ with $d_j = \langle b_j|\psi\rangle$, and the values accessible as outcomes are exactly the $|b_j\rangle$; a distinct choice of basis $\{|b'_k\rangle\}$ renders accessible a distinct family of outcomes, and in general $[\,\hat{B}, \hat{B}'\,] \neq 0$, so that the two families are not jointly resolvable.

The manner of apprehension as choice of basis. The manner in which two parties jointly attend corresponds formally to the selection of a measurement basis, and the basis determines the family of values that can be co-generated. There is no basis-independent measurement, and hence no manner of joint attention that merely registers an antecedent value; every manner of attending is the selection of a space of admissible outcomes, effected prior to the determination of any outcome. The phenomenological thesis that the manner conditions the term (§5.4) is thereby given formal content: the manner is the basis, and the basis fixes the space of admissible terms.

7.4 Generation as collapse with reconfiguration of the state space

The generation of a determinate value is modelled by two operations conjoined. The first is resolution: the superposition $|\psi\rangle$ is resolved, on this occasion, into a determinate outcome $|b_j\rangle$. The second is reconfiguration: the post-measurement relational state space is not identical to the prior space. Where standard measurement returns the system to a state $|b_j\rangle$ within a fixed $\mathcal{H}$, the present model requires that the admissible state space itself be altered by the resolution, the realised value $|b_j\rangle$ enters as a condition on subsequent dynamics, so that the family of admissible subsequent superpositions, and in the limiting case the dimension of the effective state space, is transformed. Formally, the realised value induces a map $\mathcal{H} \to \mathcal{H}'$ in which dimensions are added (relational possibilities that did not antecedently exist) or removed (possibilities foreclosed). This is the formal content of the reflexive thesis of §6.3: the generated term reconfigures the dynamics that bore it.

Generation as collapse-cum-reconfiguration. Each co-generation of value is conjointly a resolution of the relational superposition into a determinate term and a transformation of the space of subsequently admissible terms. The generated value is not the terminus of a fixed dynamics but a condition that reconfigures the dynamics, altering the admissible superpositions available for subsequent generation. Measurement modifies the measured system; in the relational case the modification is constitutive of generation rather than incidental to it.

7.5 Geometric phase

The geometric phase employed throughout the series to characterise the good cycle, the return to a configuration accompanied by a non-trivial accumulated holonomy, distinguished from mere repetition, has its origin in the quantum structure here invoked. A state transported around a closed loop in the projective state space accumulates a phase determined by the geometry of the loop and not by its duration [2, 3, 30]. For a loop γ in the parameter space governing the relational state, the accumulated geometric phase is

$$\phi_{\text{geo}}(\gamma) \;=\; \oint_{\gamma} \langle \psi \,|\, i\,\nabla \,|\, \psi \rangle \cdot d\mathbf{R},$$

the holonomy of the natural connection on the state bundle. The anchoring of the relational grammar in quantum structure thus returns the series' geometric phase to its source rather than importing a foreign formalism. The model further specifies a feature the prior treatment could only assert: since the measurement basis is variable (§7.3), the connection along which phase is accumulated is itself variable, and a variation in the manner of joint attention is formally a variation of the connection, hence of the holonomy that a given loop in relational configuration accumulates. Two relations may traverse the same configurations and accumulate distinct, even opposite, phases, in virtue of attending, connecting, differently. The Value-Foam programme is, on this articulation, the determination of the carrier and the connection of which the series' relational holonomy is an instance, with Berry's phase as its formal antecedent.

7.6 Enumerability and non-possession

The ontology established that a system whose dynamics is rewritten by its products admits no external pre-enumeration (§6.3). The quantum articulation renders this precise: if each co-generation conjointly resolves a superposition and reconfigures the space of subsequent superpositions, then no grammar fixed in advance, external to the relation, enumerates the values the relation will generate, since the productions governing subsequent generation are themselves generated within the process and are not antecedently available for enumeration.

The strength of this claim requires delimitation, in accordance with §7.1. The claim is not that the relational grammar exceeds the recursively enumerable in the computability-theoretic sense, that its generation computes a non-recursive function. That thesis is not advanced and is not supported by the structure: quantum computation does not compute non-recursive functions, and quantum indeterminacy yields unpredictability rather than super-recursive enumerative capacity. The non-enumerability asserted is epistemic and internal.

Non-enumerability as the form of non-possession. The relational grammar is non-enumerable in the following sense: there exists no grammar, fixed in advance and external to the relation, that enumerates the values the relation will co-generate, since the generating productions are produced within the joint act that any external enumeration would be required to anticipate. The complete fixing of the grammar is not a tractable computation that happens to be infeasible; it is the substitution of a settled rule-set for a generation in progress, which is the operation of settling and of possession. Enumerability, settledness, and possession are coextensive, and

their negation is the formal correlate of the non-possessibility of the relation. The impossibility of fixing the grammar is therefore not an epistemic limitation but the formal signature of the openness the phenomenology described as the sustaining of the nameless and the ontology declined to complete.

The quantum articulation thus discharges, in formal terms, the conditions established by the phenomenology and the ontology, and no more: a state of superposed potential in place of a determinate value; a co-apprehension modelled as participatory measurement with a basis selected in the manner of attending; a generation modelled as collapse conjoined with reconfiguration of the state space; a geometric phase returned to its quantum source, with the variable basis as the formal correlate of the efficacy of manner; and a non-enumerability that is the epistemic correlate of non-possession, with the computability-theoretic thesis declined. The articulation constitutes one realisation of the reflexive structure, its formal-epistemic phase. The following section develops the same structure under the conditions of political economy, where it is realised in a distinct form: the circulation of value that reconfigures its subject.

8 The Formal Modelling of the Value Cycle, and the Question of the Other

The quantum-structural grammar of §7 articulates participatory generation, but it leaves unaddressed a difficulty that conditions the entire formal programme. The difficulty is that the subject who creates value is reconfigured, within the cycle of value, by the value it creates (§6.3); the generating mechanism is rewritten, in the process of generation, by what the process generates. This section establishes the precise character of the difficulty. It shows that the difficulty is not, as it first appears, the inadequacy of the standard formal tools, which can in fact be made adequate; that every device by which they are made adequate shares a single presupposition; that this presupposition is the existence of a fixed underlying structure, a metalanguage or big Other of the formal system; and that the difficulty is therefore identical to the question, posed throughout the series, of whether there is an Other of the Other. The section closes by identifying the one class of formal tools structurally compatible with a negative answer.

8.1 The unified form of the difficulty

The difficulty assumes one form across three modelling vocabularies. In the vocabulary of generative grammar, the set of production rules is not fixed but is altered, during generation, by what the grammar generates: a self-modifying grammar. In the vocabulary of dynamical systems, the law of evolution is not fixed but is altered, during evolution, by the states the system produces: where a standard system evolves as $\dot{x} = f(x)$ with f fixed, the present case requires that f itself evolve under the influence of the phenomena its evolution produces. In the vocabulary of field theory, the coupling structure among the constituents is not fixed but is reconfigured, during the dynamics, by the emergent the coupling produces (§3). The three are one difficulty: the reconfiguration of the generating structure by the generated phenomenon,

the reflexive structure of §6.3 posed as a problem of formal modelling.

8.2 The standard tools can be made adequate

It is tempting to conclude that the standard formal tools fail before this difficulty. They do not, and the supposition that they do must be set aside before the genuine difficulty can be located. For in each vocabulary the variation of the generating structure can be accommodated by the introduction of a fixed higher-order structure that produces the variation while itself remaining invariant.

In the grammatical vocabulary, a self-modifying grammar whose rule-set G is altered during generation can be modelled by a fixed meta-grammar M that produces and rewrites G: M does not vary, and the variation of G is the output of the invariant M. In the dynamical vocabulary, a system whose law f varies can be modelled by a fixed higher-order law: $\dot{x} = f(x, p)$, $\dot{p} = g(x, p)$, where the variation of f is governed by the invariant pair (f, g), or, if g too must vary, by a fixed $(f, g, h, \dots)$ at some order. In each case the resulting system remains within the recursively enumerable: a fixed Turing machine carrying the meta-rules as part of its invariant program simulates the self-modification, and no super-recursive capacity is required or claimed.

The standard tools are rescued by a fixed higher-order structure. The variation of the generating structure does not place the value cycle beyond the standard formal tools. In each vocabulary the variation is accommodated by a fixed higher-order structure, a meta-grammar or a higher-order law, that produces the variation while remaining itself invariant, and the resulting system remains within the recursively enumerable. The standard tools do not fail; they are made adequate by the introduction of an invariant higher-order structure. The supposition that the value cycle exceeds the formal power of the standard tools is therefore to be rejected. The genuine difficulty lies elsewhere: not in the power of the tools, but in what their rescue presupposes.

8.3 The shared presupposition, and the identity of the field-theoretic and measurement rescues

Every rescue of the preceding kind shares one presupposition: a fixed underlying structure, invariant beneath the variation it produces. The meta-grammar M is fixed; the higher-order law $(f, g, \dots)$ is fixed; and the rescue consists precisely in locating an invariant structure of which the observed variation is the determinate product. This holds equally of the two rescues that appear, at first, to differ in kind. The field-theoretic reformulation, in which the coupling among the registers is itself a dynamical variable, alters nothing: it translates the difficulty into the vocabulary of variable coupling without removing it, and its own rescue is again a fixed higher-order law governing the variation of the coupling. And the measurement rescue, in which the underlying field-theoretic dynamics is held fixed and the entire appearance of reconfiguration is located in the structure of measurement (the participatory measurement of §7.3), is a special case of the fixed-meta-structure rescue: it holds a fixed underlying dynamics,

the analogue of the fixed M, and locates the variation in the derived relation of observation, the analogue of M's production of G. The measurement device introduces no formal capacity the meta-grammar lacks; it relocates the variation to the observational relation, but it relocates it onto a fixed underlying structure exactly as the meta-grammar does.

The measurement rescue is a special case of the fixed-meta-structure rescue. Holding the underlying dynamics fixed and locating reconfiguration in measurement does not differ, in its formal presupposition, from holding a meta-grammar fixed and locating variation in its production of the rule-set. Both presuppose a fixed underlying structure of which the observed variation is the derived product; the measurement rescue is the measurement-theoretic instance of the general fixed-meta-structure rescue. The introduction of an observation O that registers the emergence of value and the evolution of the subject solves no formal problem that the fixed meta-grammar does not already solve, and incurs the same presupposition: a fixed underlying structure beneath the reflexive appearances.

8.4 The presupposed structure as metalanguage, and the regress of the Other

The fixed underlying structure that every rescue presupposes is to be named. It is the invariant generative law of which every actual value cycle, and every reconfiguration of a subject within it, is a determinate product. Call it the *meta-value-grammar*: the fixed generative structure beneath the reflexive appearances, the meta-grammar M in the grammatical vocabulary, the higher-order law in the dynamical, the fixed underlying field in the measurement rescue. Every formal rescue of the value cycle's modelability presupposes the meta-value-grammar; the question of whether the value cycle is formally modelable, by a fixed structure, is identical to the question of whether the meta-value-grammar exists.

This identifies the difficulty with the question the series has pursued under another name. The meta-value-grammar is a metalanguage in the precise sense of §10: a fixed structure standing beneath, and accounting for, the phenomena, from which their variation is surveyed and produced. And it is the big Other in the precise sense of the series: the fixed locus that would guarantee the determinacy of the value cycle from outside its reflexive movement. The difficulty of formal modelling is therefore not a technical difficulty separable from the philosophical commitments of the paper; it is those commitments, posed in the formal register. To ask whether the value cycle admits a fixed formal model is to ask whether there is a metalanguage, whether there is a big Other.

And the regress is the one the series has identified. The meta-grammar M rescues the modelability of the varying rule-set G, but M in the present case is no more fixed than G: the generative structure of intimacy is itself reconfigured across the history of a relation, so that M requires its own meta-grammar M', and M' its own, in a regress that does not terminate. This is, in the formal register, the regress Lacan identifies and arrests with the thesis that there is no Other of the Other: the big Other is itself lacking, barred, without a further Other to guarantee it [12, 14, 23]. The formal correlate is exact: there is no terminal fixed meta-value-grammar, since each presupposed fixed structure requires a further fixed structure to produce its own

variation, and the regress of meta-grammars does not close. The rescue of modelability by a fixed higher-order structure does not eliminate the difficulty; it displaces it upward by one level and reproduces it there.

The modelling dilemma is the question of the Other of the Other. The question whether the reflexive value cycle admits a fixed formal model is identical to the question whether there exists a fixed meta-value-grammar, which is the question whether there is a metalanguage and a big Other. Every fixed higher-order rescue presupposes such a structure and thereby incurs the regress of the Other: the presupposed fixed structure is itself variable and requires a further fixed structure, without termination. The formal dilemma is therefore not separable from the central commitment of the series. To affirm a fixed formal model of the value cycle is to affirm an Other of the Other; to deny the Other of the Other, with Lacan and with the ontology of §6.4, is to deny that the value cycle admits a fixed formal model of the standard kind.

8.5 Background-independent generativity as the form of the barred Other

The dilemma so stated appears to permit only two responses: the renunciation of formal modelling, or the affirmation of a fixed meta-value-grammar that the series elsewhere denies. But the formal situation admits a third possibility, and it is the one structurally compatible with the denial of the Other of the Other. The standard formal tools, including ordinary quantum field theory on a fixed background, presuppose a fixed underlying structure: ordinary quantum field theory is defined on a fixed spacetime, the invariant stage beneath the field's dynamics, and is in this respect the most explicit form of the fixed meta-value-grammar. But a class of formal frameworks has been developed precisely to remove the fixed background: the background-independent approaches to quantum gravity, and among them group field theory, in which the field is defined not on a fixed spacetime but on a group manifold, and spacetime and geometry are not presupposed but emerge as collective phenomena of the field's interaction [28, 29, 31].

The pertinence of this class of frameworks is structural and is offered as such, not as a claim that the value cycle is a group field theory. What background-independent generativity supplies is a formal framework in which the underlying structure is itself emergent rather than fixed: there is no invariant background stage beneath the dynamics, the stage itself being a product of the generativity rather than its presupposition. This is the formal correlate of the barred Other. The denial of the Other of the Other is not the denial that there is any generativity, but the thesis that the generativity is itself lacking, without a fixed further structure to ground it; and a background-independent framework realises exactly this, a generativity whose own ground is emergent and not presupposed.

Background-independent generativity as the form compatible with the barred Other. A background-independent formal framework, in which the underlying structure is itself emer-

gent rather than a fixed presupposed background, is the form of formal tool structurally compatible with the denial of the Other of the Other. The meta-value-grammar it would supply is not a fixed underlying structure, the unbarred Other, but a generativity whose own ground is emergent and lacking, the barred Other. Group field theory and the background-independent approaches to quantum gravity are advanced here as the structural exemplars of this possibility, and not as a physical model of intimacy: they exhibit, in a developed formalism, a generativity that does not presuppose a fixed background, and thereby indicate the one direction in which the formal modelling of the reflexive value cycle might proceed without positing the fixed meta-value-grammar the series denies.

8.6 The dilemma restated

The dilemma is now stated in its proper form. It is not the technical dilemma of whether the standard tools are powerful enough, for they are; it is the philosophical dilemma, posed in the formal register, of whether there is an Other of the Other. Three positions remain, and the paper does not adjudicate among them, though the third is now a determinate formal programme rather than a suspension.

The first position affirms a fixed meta-value-grammar: it accepts a fixed underlying structure, of which the reflexive appearances are determinate products, and thereby accepts an Other of the Other, at the cost of the central commitment of the series. It is the position of the standard formal rescue, and its cost is the abandonment of the denial of the metalanguage.

The second position renounces formal modelling: it holds that the generativity is irreducibly without a fixed ground, that no fixed meta-value-grammar exists, and that the value cycle is therefore not modelable by any fixed structure and is to be witnessed rather than modelled (§10.5). It is the most direct fidelity to the denial of the Other of the Other, at the cost of conceding that the central object of the paper exceeds fixed formal representation.

The third position seeks a background-independent formalism: it holds that the denial of the Other of the Other does not require the renunciation of formalism as such, but the renunciation of the fixed background, and that a formal framework whose own underlying structure is emergent, on the model of group field theory, is the form a non-settling formalisation of the value cycle would take. This position does not resolve the dilemma, since whether such a formalism can be constructed for the value cycle is not here established; but it converts the third position from a suspension into a programme, and identifies the formal direction, background-independent generativity as the form of the barred Other, in which the matter is to be pursued. This is the point at which the formal programme of the paper hands forward to the Value-Foam programme and to future work, and the point at which the formal dilemma is seen to be, in its entirety, the central question of the series posed in the register of formal modelling.

9 The Political Economy of the Reconfigured Subject

The reflexive structure is now realised under the conditions of a second discipline, in which it assumes a distinct form. In §7 it is realised as a formal epistemology of participatory measurement; here it is realised as a political economy. The two sections are deliberately symmetric

and deliberately independent: each takes the single abstract structure, the reconfiguration of the dynamics by the phenomenon, of the producer by the product, and develops what its discipline establishes concerning that structure, to the discipline's limit, without reduction of either to the other. Political economy contributes what the formal articulation does not: that the producer reconfigured by the product is a subject, and that the reconfiguration possesses a determinate direction that the geometry of Paper IX specifies.

9.1 The reflexive structure in the register of production

The abstract structure is stated in political-economic terms. A generative system produces; its product reacts upon and reconfigures the system's dynamics. Under the reading of "produces" as social production and of "the system's dynamics" as the producing subject, the structure yields a thesis that is Marx's: the subject creates value, and the value, in circulation, reacts upon and reconfigures the subject who created it. The product is not inert. Value, once created and set in circulation, does not remain the completed output of a subject who persists unaltered; it returns upon its creator and reconstitutes the creator. This is the reflexive structure of §6.3 in the social register, and it is the same structure: the appearance reconfigures the movement, the product reconfigures the producer.

Political economy contributes what the formal section does not. The reconfiguration is not neutral; it possesses a direction, and the direction is the distinction the prior paper drew between the vicious and the good cycle. The reconfiguration of the subject by its product is, in Marx, divided, at once the developed form of alienation and the form of self-realisation, and the determination of which obtains is given by the sign of the phase.

9.2 The negative phase: the alienated reconfiguration

In the negative case the reconfiguration depletes. The worker produces value; the value congeals as capital; and capital, the "dead labour" of *Capital*, reacts upon living labour to dominate, deplete, and diminish it [24, 26]. The product reconfigures the producer negatively: the subject is subordinated to its own product, diminished by its own creation, and committed to sustaining a circulation that expands as the subject contracts. This is the reflexive structure in the orientation contrary to the good: the reconfiguration obtains, it obtains necessarily, the structure guaranteeing it, but the accumulated phase is extracted and possessed elsewhere, and the creating subject is depleted, a means to a cycle whose increment accrues to another. Capital is the producer reverse-colonised by its product: a reflexive structure in which the reconfiguration of subject by value proceeds at negative phase, the subject depleted in the measure that the circulation is augmented. This is the vicious cycle of the prior paper, the structure of net extraction, of negative holonomy, located at its sharpest point, the production of the subject.

Alienation as the negative-phase reconfiguration of the subject. Alienation is not, fundamentally, the loss of a product, the worker's forfeiture of the produced thing. It is the structural foreclosure of the subject's positive reconfiguration by its own product: the subject creates value, the value reconfigures the subject, but the reconfiguration is a depletion, the phase ex-

tracted and possessed elsewhere, such that the creator is reconstituted as diminished rather than augmented by what it creates. The fundamental sense of alienation is the foreclosure of the subject's becoming, through its own creating, the subject it might have become. The fuel-subject of the prior paper, the subject that creates value and is never reached by its return, is, in this ontology, the subject for which the positive reconfiguration is foreclosed: present in the cycle solely as that consumed to drive it.

9.3 The positive phase: the generative reconfiguration

The same reflexive structure admits the contrary orientation, of which Marx also gives an account, most explicitly in the *Grundrisse*: labour as the objectification of human powers, and wealth in its non-alienated form as the developed richness of human needs, capacities, and relations [25]. The product reconfigures the producer positively: the subject creates value, and the circulation of the value returns to augment and develop the subject that created it, the subject becoming, through its own creating, a more developed subject. This is the good cycle of the prior paper, the positive holonomy, located at the production of the subject: a structure in which the reconfiguration of subject by value proceeds at positive phase, the creator augmented by what it creates, the return accruing to the one whose creation it was.

The structure thus yields a thesis stronger than either pole considered alone.

The reconfiguration is necessary; its direction is the variable. That the circulation of value reconfigures its creating subject is not contingent but a structural necessity of the reflexive system, as a quantum measurement necessarily reacts upon its state. The variable is not whether the subject is reconfigured but the direction, the sign of the phase: whether the subject is depleted by its own product (alienation, negative phase, the vicious cycle) or developed by it (self-realisation, positive phase, the good cycle). Settling, possessive, extractive circulation effects the former; non-possessive circulation effects the latter. The apparatus of the prior papers, the good and vicious cycle, the geometric phase, possession and the dark virtue, settling failure, the fuel criterion, is, in this section, reactivated and unified at the central object of political economy: the production of the subject.

9.4 The non-circular criterion of the phase sign

The identification of alienation with negative phase and of self-realisation with positive phase requires an independent criterion for the sign, on pain of circularity: were the sign defined by the alienation it is invoked to explain, the identification would be vacuous. The criterion is supplied by a reproduction surplus, defined independently of the phase. Let a cycle of the relational or productive system be considered over one period. Let G denote the gross regeneration effected in the period, the augmentation of the subject's generative conditions: its capacities, relations, and powers of further production. Let C denote the consumption the period exacts of the subject, the depletion of those same conditions in driving the cycle. Define

the reproduction surplus as

$$\sigma \;=\; G - C.$$

A cycle for which $\sigma > 0$ regenerates the subject's generative conditions in excess of what it consumes: the subject emerges with augmented capacity for further generation. A cycle for which $\sigma < 0$ consumes those conditions in excess of what it regenerates: the subject emerges depleted. A cycle for which $\sigma = 0$ reproduces the subject's conditions without augmentation, the structure of simple repetition. The thesis is then that the sign of σ tracks the sign of the holonomy: positive reproduction surplus corresponds to positive phase, negative surplus to negative phase, and zero surplus to the zero-holonomy cycle of mere repetition. The correspondence is asserted as a thesis to be established, not as a definition, and the independent definability of σ in terms of regeneration and consumption, without reference to the phase, is what secures the identification of §9.2 and §9.3 against circularity.

9.5 The subject as generated within the cycle

A further consequence completes the symmetry with §7. The reconfigured subject is not a complete subject that entered production antecedently constituted and was subsequently modified. The subject is generated within the cycle of which it is also the producer. There is no fixed, antecedently given creator of value standing external to the circulation, awaiting the production and the subsequent modification by what it produced; the subject is itself produced, recurrently, in and through the cycle, as the social-reproduction tradition establishes, the subject being reproduced in each period through the labour of care and maintenance on which the prior papers have insisted [4, 13, 15]. The subject is the fixed point of the reflexive structure, not its external premise: that which is produced in the producing, constituted in the constituting. This is the political-economic form of the first consequence of §6.3, and of the mother paper's relational ontology, that the subject is generated in and through relation rather than entering it complete. Marx's thesis that in transforming the objective world the human transforms itself, Foucauldian subjectivation, and the recurrent reproduction of the labouring subject are, in their distinct registers, formulations of the single thesis of this ontology: the producer is among the products.

9.6 The identity of the reconfigured subject as parallel transport

A difficulty requires address. If the subject is recurrently reconfigured by the cycle, the sense in which value is "returned to its creator" returned to the same subject is in question. The creator augmented by the return is not, subsequent to the reconfiguration, identical to the creator that first created the value, the reconfiguration having reconstituted it. The question is whether "return to the creator" thereby loses its sense, there being, strictly, no single creator to which value returns.

The sense is not lost but is specified. This is the central result of the prior paper, the return to the root that is not a return to the origin, the spiral as distinct from the circle, obtaining at the level of the subject. The value returns to its creator, but the creator has, in the returning, been augmented; the return is therefore not to the original subject but to the spirally developed one. "Creator and beneficiary are identical" is not the persistence of a self-identical subject but the

spiral development of a subject. The geometric formulation specifies the result:

Personal identity as parallel transport in the reflexive value-cycle. The continuity of the subject through the reflexive cycle is not the strict self-identity of an unchanged entity but the parallel transport of a subject around a loop in relational space, a sameness that carries, on return to its starting configuration, a phase difference. Personal identity, on this construal, is parallel transport in the reflexive value-cycle; alienation is the negative-phase displacement of that identity, the non-recognition of itself by the depleted subject; and self-realisation is its positive-phase development, the becoming more itself of the subject through its own creating. The creator to which value returns is the creator parallel-transported around the cycle: the same, and developed, returned to the root and not to the origin. The identity of creator and beneficiary holds in the holonomic sense, the sense of a sameness that has accumulated a phase. The construal is advanced as a structural model of the subject's continuity, and the adequacy of parallel transport as its formal carrier is subject to the cautions of §A.

This is the limit of the section, the point at which political economy, developed to its boundary, returns the question to the geometry without being absorbed by it. It has established what its discipline establishes: that the reflexive reconfiguration of the producer by the product is a social fact possessing a moral direction; that alienation and self-realisation are the two phases of one cycle, distinguished by the sign of an independently definable reproduction surplus; that the subject is produced within the cycle it produces; and that the return to the creator is a spiral and not a circle, a sameness bearing a phase. It has established this in its own terms, to its own boundary, without dissolution into the formal grammar of §7 or legislation by the geometry it employs. Two realisations of one structure, the formal-epistemic and the political-economic, now stand in juxtaposition, recognisably identical in structure and irreducibly distinct in register. The status of the situation in which one abstract structure is realised, under distinct disciplines, in such distinct and mutually irreducible forms, and the cognition of the unbroken structure they share, in the absence of the external standpoint excluded in §6.4, are the matter of §10.

10 Symmetry-Breaking and the Cognition of the Unbroken Structure

Two realisations of one structure stand in juxtaposition. The quantum-structural grammar (§7) and the political economy of the reconfigured subject (§9) are recognisably the same reflexive structure, the reconfiguration of the dynamics by the phenomenon, of the producer by the product, and are irreducibly distinct, neither translatable into the other, each employing a vocabulary the other lacks. This section specifies the status of that situation and addresses the question it generates: given one abstract structure realised in these two distinct forms, the cognition of the unbroken structure, in the absence of the external standpoint excluded by the ontology of §6.4. The section is the central juncture of the paper, at which the claim to a metalanguage is both most available and most consequential.

10.1 The disciplines as symmetry-broken phases

The relation between the two realisations is specified by symmetry-breaking. There is one abstract, highly symmetric, undifferentiated structure, the reflexive structure in which a generative system's appearance reconfigures its dynamics. Under the conditions of a particular discipline this symmetry breaks, and the structure assumes a determinate, lower-symmetry form: a participatory measurement under the conditions of formal epistemology, the alienation–realisation of the subject under the conditions of political economy, and, as the prior papers established, the dialectic of desire under psychoanalysis, and the principle of reversal-as-the-movement-of-process in classical Chinese cosmology. The operative feature of symmetry-breaking is that, the symmetry once broken, there is no path internal to any broken phase by which the unbroken symmetry is recovered. The symmetric phase is not surveyable from within the asymmetric one; one is always already within a phase, and the unbroken structure is, from within, irrecoverable, accessible only as that which must have broken in order to yield the phase one occupies.

The disciplines as symmetry-broken phases of one structure. Each discipline is not a partial external view of the unbroken structure but a phase that the structure assumes when realised under that discipline's conditions. The absence of a metalanguage, established in the prior paper, obtains in consequence: there is no unbroken phase to occupy, since all discourse proceeds within some discipline's broken vocabulary, from within a determinate phase, the symmetric structure being not a language into which one might revert but precisely that of which every actual language is a breaking. The exclusion of the external standpoint in §6.4 is the ontological statement of this result; symmetry-breaking is its mechanism.

10.2 The paradox of the section

A paradox is now to be addressed rather than evaded. If one is always already within a broken phase, and the unbroken structure is irrecoverable from within any phase, the possibility of the present section is in question. For the section speaks of the unbroken structure, names it, asserts that the two realisations are phases of it. The objection is that the section thereby claims precisely the external, phase-transcending standpoint it has declared impossible, and that the predicate "unbroken structure" constitutes a covert metalanguage, a settling of what has been asserted to be unsettlable.

The paradox is genuine and is not to be dissolved by qualification; it is the substantive difficulty of the undertaking, and the remainder of the section consists in three modes of addressing it without claiming the excluded standpoint. The inadequate response is the claim to a partial overview, that the unbroken structure is dimly apprehended. This retains the standpoint under the appearance of modesty. The adequate response is that the unbroken structure is cognised not by being viewed, from any standpoint however partial, but in three modes, none of which occupies an external position.

10.3 The unbroken structure as abductively posited

The unbroken structure is not perceived; it is posited, abductively, as the best explanation of a cross-phase correspondence. It is not viewed. What is encountered, from within the phases, is the fact that two disciplines as mutually foreign as quantum measurement and the critique of political economy exhibit one reflexive structure. From that fact the inference proceeds: there is a structure, antecedent to the breaking, of which these are phases, on pain of treating the correspondence as a coincidence of implausible magnitude.

The unbroken structure as inference to the best explanation. The unbroken structure is posited as the inference to the best explanation of the cross-phase isomorphism; it is not given but inferred, and inferred from within the phases. The procedure preserves the constraint the paradox imposes: the unbroken structure is at no point occupied, its features at no point read off directly; one remains within a phase and infers, from the correspondence of the phases, a unity one does not occupy. The positing is defeasible and does not resolve into a view. It is a commitment the phases incur, not a content possessed.

10.4 Holonomy as the proposed cross-phase invariant

A more determinate formulation of what is conserved across the phases yields the most consequential, and most carefully delimited, proposal of the paper. Let each discipline be treated as a local gauge, a coordinate chart in which the structure is written in one manner; the passage between disciplinary vocabularies is then a change of chart, a transition function, and the question of the identity of the unbroken structure becomes the question of the invariant under all such changes of chart. In the geometry employed throughout the series there is a distinguished gauge-invariant quantity, one belonging to no single chart yet conserved across all of them, namely the holonomy, the phase accumulated around a loop, on which the good and vicious cycle have turned since the prior paper. The proposal is the following.

Holonomy as the cross-phase invariant: a proposal advanced as unsettled. The distinction between the good and the vicious, the sign of the holonomy, augmentation as against extraction, the spiral as against the circle, is proposed as the invariant conserved across the broken phases: belonging to no single discipline, conserved across all, and capable of serving as the connective among disciplines in virtue of being possessed by none. On this proposal the geometric phase tracked across intimacy, political economy, quantum epistemology, and classical cosmology is not a further discipline but the gauge-invariant core of the unbroken structure, which accounts for the operation of one criterion across all of them. The proposal is advanced as unsettled. To assert it as the established truth of the unbroken structure would be to cash, in a sign, a determination the paper has not established, to commit, at its own central juncture, the settling failure it elsewhere identifies. It is accordingly advanced as the strongest unsettled conjecture of the series, the mode of whose assertion must, on pain of self-contradiction, remain non-possessive.

The restraint is required and is not a weakness of the position. The available move is the assertion that holonomy is the invariant and the central juncture thereby established, with the consequent completion of the series. But the section has established that the unbroken structure is not possessible from any phase; its subsequent possession, under the designation of holonomy, would controvert the section in its conclusion. The conjecture is therefore left standing, at once load-bearing and unsettled, which is the only manner in which a central juncture of this structure can stand. The formal vocabulary of the conjecture, and the conditions on its discharge, are recorded in §A.

10.5 The cognition of the unbroken structure as the traversal of the phases

The third mode of addressing the paradox is performative rather than asserted. The manner in which the section has cognised the unbroken structure is not by viewing it but by traversing the phases, by passing from the quantum phase to the political-economic phase and registering, in the passage, their correspondence. The cognition of the unbroken structure is the holonomy accumulated by the interpreter who traverses the loop from one phase to another and returns; it is not a proposition delivered concerning the unbroken structure but a phase accumulated in traversing its breakings. This is the poetics of the prior paper applied to the method of the present one: the unbroken structure is not represented, representation being a settling and a claim to the standpoint, but witnessed, by an interpreter who traverses the path through the phases and accumulates, in the traversal, a cognition no summary delivers.

Cognition by traversal rather than survey. The section does not survey the phases from above; it traverses them, and its cognition of their common structure is the phase accumulated in the traversal. The section therefore terminates in no proposition concerning the unbroken structure, but in the traversed recognition that the phases correspond. The form of the section is its content: a refusal to settle the unbroken structure into a thesis, effected in the manner of the section's procedure.

10.6 The dialectical-materialist ground of the polyphony

A misidentification is to be precluded. The insistence on a plurality of frameworks, none sovereign, no metalanguage, a truth obtaining in the dialogue of phases rather than in any one, admits of construal as postmodern relativism, the abandonment of truth for an irreducible plurality of language-games. The position is the contrary, and the distinction is the methodological commitment of the series.

The polyphony as dialectical-materialist, not relativist. The plurality of frameworks is not the relativist thesis that there is no truth but only discourses. It is the dialectical-materialist thesis that truth is real and not yet complete, that it is realised in a historical, material process

of generation, such that any single framework is a partial determination, from one historical-disciplinary position, of a totality still in production. No framework possesses the whole, not because there is no whole, but because the whole is unfinished; and the declaration of its capture, in any single framework, is the settling of a process in progress into a fixed doctrine, which is alienation in the register of cognition. The many-framework polyphony of the series is accordingly neither eclecticism nor collage but the method a not-yet-complete totality requires: the available fidelity to a truth still in the course of its own generation. That generative justice must sustain itself through a recursive structure, that the poem refuses to settle, that the dialectic does not close in absolute knowledge, are formulations of one commitment, and it is materialist throughout.

This precludes the construal the form of the series most invites. The objection that the work does not conclude, that it disperses into frameworks rather than synthesising them, misidentifies a method as a deficiency. The refusal to synthesise is not an inability to conclude but a fidelity to a totality that is not concluded, a refusal, on principle, of the settling that would present an unfinished generation as a completed possession. The polyphony is the form truth assumes when truth is still in production. The section has thereby completed its task: it has specified the relation between the disciplines as symmetry-broken phases of one structure; addressed the paradox of cognising the unbroken structure in the absence of an external standpoint, through the abductive positing of the structure, the proposal of holonomy as an unsettled invariant, and the traversal rather than survey of the phases; and established the dialectical-materialist rather than relativist character of the position. The manner in which the unbroken structure is cognised, by traversal rather than survey, by positing rather than possession, by an invariant advanced rather than settled, is the first determination of the practice, being the cognitive form of *wu wei*: a cognition that does not grasp. The practice is the matter of the following section.

11 Praxis: The Cultivation of a Generative Field

The paper turns to practice, to the question latent in the preceding development: the manner of action within a system that reflexively reconfigures, and may alienate, the subject that acts within it. The ontology imposes a constraint that excludes the standard model of practice, and the determinate form of the practice, a cultivation rather than a construction, and a subtraction rather than an addition, is established only once that model is excluded.

11.1 The exclusion of the external operator

The standard model of practice is cybernetic: a subject external to the system observes its dynamics and intervenes to direct it toward the good. The model is unavailable, and its unavailability is a consequence of the preceding development rather than an incidental restriction. §6.3 and §9.5 established that there is no subject external to the cycle: the practitioner is internal to the dynamics, is recurrently reconfigured by it, and is a product of the system the practitioner would act upon. There is no completed self external to the process and operating it.

This excludes every practice of external mastery, and establishes that such a practice would in any case be self-defeating. To stand external to the relation and to administer it as an object to be optimised, extracted from, or engineered toward a specified output is the posture the geometry of Paper IX identified as the vicious cycle: the treatment of the relation as a possessible object. The posture of external control is itself the structure of the vicious cycle; the intervention from an external position to compel the good effects, by the form of its operation, the depletion it would prevent. The question is therefore reconstituted: not the regulation of the dynamics toward the good from an external position, there being no external position and the external posture being itself the depletion, but the manner of participation, within a reflexive system that may alienate the participant, such that the participation tends toward the good cycle. The regulator is the regulated; the practice is not a force applied to the dynamics but a tendency internal to it.

11.2 Cultivation of a field in place of construction of a grammar

This reconstitution corrects a description that requires correction. One speaks loosely of constructing the shared grammar, of two parties making the rules of their relation. But the construction of a grammar is the legislation of productions, the antecedent fixing of the manner in which the relation shall generate, which is the settling and possession identified in §6.2: the externalist's notation applied to the dynamics. The grammar is not constructed but cultivated into an openness within which it admits of continual joint reconfiguration. What the practice tends is not the content of the grammar, which is generated, jointly, by the parties within the field, but the condition under which the surface grammar admits of continual joint reconfiguration: the openness of the field, its curvature, the conditions under which the positive phase arises.

The term *field* is employed with precision and not as loose figure. A field does not prescribe the trajectory of what moves within it; it determines the curvature, the potential, the conditions of motion, and admits the unfolding of each entity's dynamics along them. To cultivate a field rather than construct a grammar is to effect, for a relation, what a field effects for a particle: not the dictation of the path but the determination of the space within which paths are freely taken. The good the paper specifies is a condition of the space, a curvature under which the positive phase arises, and not a prescribed path. This is the practical form of the eudaimonic thesis of the prior papers: a good relation is not a structure two parties complete but a field within which each party's dynamics unfolds, flourishing being the unfolding of a subject's own dynamics within such a field. The practitioner does not author the content of the relation; the practitioner tends the field within which that content is jointly authored.

11.3 The subtractive character of the practice

The tending of such a field admits of determinate specification, and the actions specified share a form the preceding development establishes: they are negative, subtractive, refusals rather than productions, the positive phase being non-producible directly without its destruction (Paper IX), such that the available practice is the removal of what obstructs the curvature under which the positive phase arises. Three such tendings are specified.

The *first* is the preservation of divergence. The criterion of a living grammar is its admission of genuine divergence, the capacity of the other party to take an unanticipated next step, to become an unanticipated subject, without penalty and without the withdrawal of regard as the cost of the divergence. The preservation of divergence is the refusal to narrow the relation's admissible productions to a single anticipated path, sustained as the recurrent question whether, within the relation, the other party retains the capacity to become an unanticipated subject. When one party's next move admits of a single permitted derivation, converging upon a prescription, the grammar has ceased to generate and generation has become regulation. This preservation is not only the cultivation of the field; it is, as §14 establishes, the practitioner's sole means of correcting the practitioner's own alienation, the other party's capacity to register extraction being the only available instrument by which the practitioner's own displacement is detected.

The *second* is the sustaining of the opening without its occupation. This is the most counter-intuitive of the three: confronted with the unsayable term of the relation, the injury, the vulnerability, the present that resists articulation, the practice is to remain with it, to sustain it, and not to occupy it with explanation, designation, or premature commitment. The occupation of the opening, its settling with a sign, confers the security of determination and extinguishes the real value that subsists only around the opening (§5.3). The tending of the field is the sustaining of the opening, such that the positive phase is undergone recurrently rather than cashed once in a designation.

The *third* is the preservation of the made language as poetic rather than as capital. Two parties generate private signs, a shared idiom, an internal designation, a metaphor legible only to them; these are joint attention condensed into a re-traversable poetic loop, the manifest trace of the grammar's joint reconfiguration, and the creation of language the paper's title denotes. The practice preserves these signs as poetic, sustaining the opening, soliciting the re-traversal, accumulating a fresh remainder at each traversal, rather than permitting their hardening into exclusionary symbolic capital, in which the legibility internal to the parties becomes a barrier against the exterior and a regulation within. The made language is well tended when it remains a solicitation to traverse the real, and ill tended when it sets into a settled token to be cashed, displayed, or deployed.

11.4 An illustrative case

The three tendings are exhibited in a single situation, described in the manner of §4.

An illustrative case: the tended field under strain. Two parties, after some years, possess a private language: designations, gestures, a shared mode of falling silent each can read. A period of strain supervenes. The available recourse is control: the exhaustive designation of the difficulty, and thereby its mastery, which occupies the opening; the requirement that the other party cease to diverge and resume the anticipated role, which narrows the productions; the invocation of the shared idiom as a claim, the prior commitment, the established definition of the relation, which cashes the relation's accumulated tokens against the present difficulty, hardening the poetic into capital. Each is an addition, a compulsion, an operation from an external position; each, by the geometry, deepens the negative curvature it is intended to repair. The cultivation is the contrary, and is subtractive throughout: the difficulty is left partly

unsaid rather than mastered by designation; the other party is permitted, in this period, to be unanticipated, without withdrawal of regard; the established idiom is re-traversed afresh rather than cashed as a claim. None of this produces the recovery. It removes the compulsions under which recovery cannot arise, and admits the field's curvature, the relation's own dynamics, to effect the positive phase no compulsion could.

11.5 The internal criterion

The practice requires a means of determining, internally, whether the field tends toward the good or its contrary, a criterion held internally, posed as a question, and not a metric read from an external position, the latter restoring the excluded external operator. Two questions are sufficient, and they are the orthogonal pair the series has developed: the poetic criterion and the criterion of justice, neither reducible to the other.

The first is the dynamical, poetic question: whether the loop continues to spiral or merely recurs. When the private signs, the practices, the shared silences are re-traversed, whether they continue to accumulate an irreducible remainder, the spiral and positive holonomy, or have emptied into a performance recurring for its own sake, the circle and zero holonomy. The second is the question of justice: whether the spiral's positive phase excludes any party from its benefit, present solely as its cost. Returning to the political economy of §9: whether, in the coupled system of the two parties and the families behind them, there is a party, characteristically the party bearing the labour of care and reproduction, idealised as natural devotion, that creates value and is never reached, positively, by its return; that is reconfigured solely negatively; that is, within the system, solely fuel.

The practice as the posing of the two questions and subsequent subtraction. The practice is the recurrent and exacting posing of the two orthogonal questions, whether the loop continues to spiral, and whether any party is solely its cost, and, when the answers turn negative, the operation of subtraction: the withdrawal of the extraction, the relaxation of the compelled closure, the restitution of the possessed phase. The practice does not add, optimise, or produce; it removes what obstructs the curvature under which the good arises. This is the content of *wu wei* for two parties: not the absence of practice but the redirection of practice from the production of the good relation to the non-obstruction of the field within which a good relation generates, and from a control exercised over the dynamics to a tending exercised within it.

A constraint remains, which the section has twice indicated and which is now stated. The practice requires of the practitioner the determination of whether the field tends toward the good, the subtraction of the extraction, the preservation of the other's divergence. But the practitioner is a product of the cycle, and possibly a product of an alienated cycle, the developed form of which is precisely that it is not registered as alienation, the extraction being experienced as regard. A subject already reconfigured by a vicious cycle poses the two questions in good faith and obtains reassuring answers, taking itself to be tending the field while depleting it. The entitlement of such a practitioner to the practice of the good is thereby in question. The practice, posed exactingly, encounters a limit it cannot cross from within itself, and that limit

is the matter of the following section.

12 The Matter of the Field, and the Conditions of a Just Eudaimonia

The field has been specified structurally, as a curvature that guides derivations rather than a structure that is constructed (§11.2); it has not been specified materially. This section supplies the matter of the field, and thereby brings the practice to the ground of experience. It identifies the matter of the field with the everyday sensory and habitual fabric of a shared life, names that fabric in the terms of the traditions that have addressed it, shows that the fabric is transversal across the three registers, and specifies the two conditions a field must satisfy to be good. It is the concluding section of the paper's account of practice, and it marks the point at which the account passes to the more empirical register that a subsequent paper will develop.

12.1 The matter of the field

The question the structural account leaves open is the question of what the field is made of. A curvature is a curvature of something; a field that guides the derivations of a shared life is a field constituted by some material. The material is the everyday sensory and habitual fabric of the shared life: the tastes of the food two persons eat together, the sounds of their common rooms, the scents of their shared space, the textures of their contact, and the habits, customs, memories, and household manners that order these. The field is not an abstract curvature laid over a relation; it is this fabric, jointly sustained, within which the relation's derivations are taken.

This fabric is, in the framework of this paper, the site at which the three registers are coupled. Various traditions of practical and contemplative thought have attended to the sensory and habitual fabric of a dwelling and a shared life under their own descriptions; the present account does not depend on any of them, and notes only that the matter it identifies is not a novel object but one long recognised, under other names, as the medium in which a form of life is borne.

12.2 The fabric is transversal across the registers

The fabric is the matter of the field because it is precisely where the coupling of the three registers, on which value is emergent (§3.3), is materially sustained. A meal two persons have eaten together for years is not a fact of one register. It has a real aspect, the taste and the bodily satisfaction and the inarticulable ease that no description exhausts; a symbolic aspect, the meal as a sign that is theirs, the mark of a shared life; and an imaginary aspect, the idealised form of the life the meal figures. The meal, and the habit of it, is the coupling of the three registers materially deposited in a recurrent sensory event. So too a shared waking, a way of keeping a room, a manner of touch, a household custom: each is a site at which the three registers are coupled in a sensory-habitual recurrence.

The matter of the field is the coupling of the registers deposited in the sensory-habitual fabric. The matter of the field is the everyday sensory-habitual fabric of a shared life, its forms,

sounds, scents, tastes, textures, and the habits, rules, and memories that order them, in which the coupling of the three registers, on which relational value is emergent, is materially sustained. The fabric is transversal across the registers: each of its elements, a shared meal, a common habit, a household custom, has a real, a symbolic, and an imaginary aspect, and is the site at which the three are coupled in a recurrent sensory event. To cultivate the field is to tend this fabric such that the coupling is sustained; and the obstruction or severance of the coupling, in the fabric, is the material form of the settling that extinguishes value (§4.3).

This is the material content of the practice. The customs and habits that compose a shared life, the household manners, the recurrent sensory events, are the medium through which a relation's grammar is jointly sustained and rewritten, and they are, in the terms of the practical traditions, the dispositional fabric, the *habitus*, in which a form of life is borne [5]. The cultivation of the field is the tending of this fabric, and the body of practical knowledge concerning how the fabric is tended, in the formation of a household manner and in the small recurrent practices of a shared life, is the empirical content of the practice that the structural account abstracts from.

12.3 The two conditions of a good field

A good field must satisfy two conditions, and they are the two orthogonal criteria of §11.5, now stated as conditions on the fabric. The first is eudaimonic: the field must be one in which each party's own dynamics can unfold, in which the sensory-habitual fabric guides the derivations of each toward the development of that party's own powers rather than confining them to a foreseen form. The second is just: the field must produce a good cycle of value, one in which no party is reduced to the fuel of the fabric, present only as the supplier of a sensory-habitual order from which it is never positively reconfigured in return.

The relation between the two conditions requires precision, for the eudaimonic condition is not sufficient and is not, by itself, the criterion. A field may permit the unfolding of one party's dynamics at the cost of another's, as when the sensory-habitual fabric of a household is sustained by the uncompensated labour of one party, characteristically the party who supplies the meals, the order, the atmosphere, the care, and whose own dynamics is thereby confined to the supplying. Such a field produces the satisfaction of one party and the depletion of another, and it is not good, the satisfaction of the one being purchased by the symbolic and material exploitation of the other (§13). The eudaimonic condition is therefore not self-standing; it is constrained by the just.

Eudaimonia is constituted, not merely constrained, by justice. The just is not an external constraint upon the eudaimonic but internal to it. Eudaimonia is the unfolding of a party's own dynamics; and a field that depletes a party, that reduces it to the fuel of the fabric and confines its dynamics to the supplying, does not produce that party's eudaimonia but forecloses it. A field that produces the satisfaction of one party by the depletion of another has therefore not produced eudaimonia and added an injustice; it has produced no eudaimonia at all, but the enjoyment of one and the foreclosure of the other. Eudaimonia, being the unfolding of

each party's dynamics, is irreducibly common, and a satisfaction that is not common, that is purchased by the foreclosure of another's unfolding, is not eudaimonia but enjoyment at another's cost. The just field is not the eudaimonic field with a constraint added; the unjust field is one that has failed to be eudaimonic at all. Justice is the condition under which there is eudaimonia, and not a limit upon it.

12.4 Happiness is not the criterion

A final qualification completes the account and connects it to the ethics. The good field is not to be constructed as a procedure for the guarantee of happiness, and happiness is not the paper's final criterion. The eudaimonia a good field produces is, like the good itself (§14), unguaranteeable and processual: it is not a state that a correctly constructed field secures, but an unfolding that a tended field does not obstruct. To treat the field as a technique for the production of happiness, to construct the sensory-habitual fabric as a machine for a guaranteed satisfaction, is the error of possession in the material register, the promise to engineer a guaranteed fortune from the arrangement of the fabric, and it is, like every construction of structure, the occupation of the place of the Other (§13). The field is cultivated, not constructed; the happiness is undergone, not secured; and the fabric is tended such that a good cycle of value may generate, not engineered such that a specified satisfaction must result.

This is the conclusion of the paper's account of practice. The practice is the cultivation of a field; the field is the everyday sensory-habitual fabric of a shared life in which the three registers are coupled; the good field satisfies two conditions, the eudaimonic and the just, of which the just is the condition of the eudaimonic rather than a limit upon it; and the cultivation is a tending and not a construction, a guidance of the fabric's derivations toward a good cycle that it may not possess and must not guarantee. The empirical development of this account, the formation of household manners and habits, the practical cultivation of the sensory-habitual fabric, and the theory and practice of a just eudaimonia in the more empirical register, is the matter of the subsequent paper, and the present paper, having grounded the practice in the matter of the field, concludes its account here.

13 Exploitation in Symbolic Generation, and Generative Justice

The practice was specified as the cultivation of a field rather than the construction of a grammar: as the guidance of a generative dynamics rather than the modification of a generative structure (§11.2). That specification was grounded formally, in the impossibility of constructing a structure one does not possess and which is itself in generation (§8). It has, beyond its formal ground, an ethical content, and this section develops it. The thesis is that the possessive modification of a generative structure is a form of exploitation, that its avoidance is a form of generative justice, and that this brings the symbolic register of intimacy under the same criterion of justice the series applies to the economic. The section thereby connects the practice of §11 to the ethics of §14, and supplies the second of the two forms in which the good may fail.

13.1 From non-possession to the means of symbolic generation

The practice does not construct the grammar; it guides the grammar's derivations. The ground given in §11.2 was that the grammar cannot be constructed, since to construct it would be to legislate the productions, and the meta-grammar that would have to be possessed in order to legislate them does not exist as a fixed possessable structure but is itself in generation and without a fixed ground (§8). To construct the grammar is therefore to claim possession of a generativity that is no one's, to occupy the position of the barred Other as though it were the unbarred Other. This is the formal content of non-possession. Its ethical content is reached by a single further step.

The step is to identify the generative structure as a means of generation. Whoever possesses the generative structure of a relation, its grammar, the rules by which its value is generated, controls thereby the generation and the distribution of the relation's value. This is the symbolic instance of the general thesis of political economy, that the possession of the means of production confers the power to direct production and to appropriate its surplus [26]. The generative structure is the means of symbolic generation; its possession confers the power to direct what value the relation generates and to whom that value accrues.

The generative structure as a means of symbolic generation. The grammar of a relation is a means of symbolic generation, in the sense in which the means of production is a means of material generation. To possess it, to occupy the position from which its productions are legislated, is to control the generation and the distribution of the relation's value. The possession of a generative structure is therefore not a neutral formal fact but the symbolic correlate of the possession of the means of production: it confers the power to direct generation and to appropriate the generated. The bridge from the possession of structure to the appropriation of value is the same bridge Marx draws in the material case: whoever controls the means by which value is generated controls the distribution of what is generated.

13.2 Possession as exploitation, guidance as generative justice

The criterion of generative justice is that value be retained by and returned to the generative network that produces it, rather than extracted from the network to an external possessor; injustice is the extraction of value from its generators [11]. Applied to the symbolic register, the criterion yields the following. The possession of the generative structure, the legislation of the grammar from a position claimed to be external to the relation, extracts the relation's generativity to a single possessor: the generativity that is jointly produced and possessed by none is appropriated by one party, who legislates the productions and thereby directs the value to itself, reducing the other from a co-author of the grammar to an object legislated by it. This is exploitation in the symbolic register, the extraction of a jointly generated generativity to a single possessor.

The guidance of derivations, by contrast, extracts nothing. To cultivate the field, to shape the curvature within which derivations are freely taken without legislating the derivations themselves, is to leave the generativity in the network that produces it, directing no value to

an external possessor and reducing no party to an object. It is generative justice in the symbolic register: the generated value returns to its generators, the grammar remains jointly authored, and no party is reduced to the means of another's appropriation.

Possessive modification as symbolic exploitation. The possessive modification of a relation's generative structure, the legislation of its grammar from a claimed external position, is exploitation in the symbolic register: it appropriates a jointly generated generativity to a single possessor, directs the relation's value to that possessor, and reduces the other party from a co-author of the grammar to an object legislated by it. The guidance of derivations, the cultivation of the field without the legislation of the productions, is the corresponding generative justice: it retains the generativity in the network that produces it, returns the generated value to its generators, and reduces no party to a means. The avoidance of the possessive modification of structure is therefore not only a formal necessity but a requirement of justice, and it brings the symbolic register of intimacy under the criterion of generative justice the series applies to the economic.

13.3 Symbolic exploitation across the three registers

Symbolic exploitation, so specified, is transversal across the three registers, in the manner of §3. In the Symbolic, it is the possession of the rules, the legislation of the productions from a claimed external position. In the Imaginary, it is the reduction of the other from a co-author to a legislated object, the other's image fixed by the possessor's legislation rather than generated in the joint relation. In the Real, it is the severance of the generativity from the void around which value is organised, the conversion of an open generation into a closed structure whose products can be directed and appropriated. Symbolic exploitation is, in the terms of §3.3, the possessive suppression of the coupling: it extinguishes the emergent that is value by appropriating the structure on which the emergent depends, exactly as the settling symbolisation of §4.3 extinguishes value by severing the Symbolic from the Real. Exploitation and settling are, in the symbolic register, one operation under two descriptions: the appropriation of the generative structure is the settling of the generative process, and both extinguish the value they would possess.

13.4 The poem and the reform of language

The distinction between the guidance of derivations and the possession of structure has a paradigm, and the paradigm returns the analysis to the poetics that organises the series. To compose a poem is to guide the derivations of a language without modifying its structure: the poet legislates no rule, alters no grammar, but takes, within the existing language, a derivation no one has taken, and the derivation enriches what the language can generate. The poem extracts nothing from the language; it returns to the language a generativity it did not know it had, and it reduces no speaker to an object, the poem being available to all who share the language. The composition of a poem is generative justice in the symbolic register: a guidance of derivations that augments the common generativity and appropriates none of it.

The legislative reform of a language is the contrary paradigm. To modify a language's structure from a position claimed to be external to its use, to legislate its grammar, prescribe its forms, or engineer its vocabulary, is to claim possession of a generativity that belongs to its community of speakers and is possessed by none of them. The historical record of such reforms, in the limited successes of constructed languages and in the recurrent failure of prescriptive legislation to govern a living language's development, indicates the structural point: a living language's generativity is not a possessable structure that a legislator may rewrite, but a jointly sustained dynamics that no external position commands. The attempt to possess and rewrite it is the symbolic instance of exploitation, and it characteristically fails, the living dynamics escaping the legislation, or it succeeds only in impoverishing what it commands. This is the paradigm of symbolic exploitation: the possessive modification of a generativity that is no one's.

The connection to the practice of §11 is now exact. The third subtractive action, the preservation of the made language as poetic rather than as capital (§11.3), is the preservation of the made language as a guidance of derivations rather than a possessed structure. The poetic sign guides: it sustains the opening, solicits the re-traversal, augments the common generativity. The sign hardened into symbolic capital possesses: it is legislated, directed, appropriated, wielded. The hardening of the poetic into capital is the passage from generative justice to exploitation in the symbolic register, and the preservation of the poetic is the practice of symbolic generative justice.

13.5 The two forms of the failure of the good

The analysis yields the second of two forms in which the good may fail, the first of which is developed in §14. The good may fail epistemically: no finite subject can guarantee the goodness of its own practice, and the demand for the guarantee is the covert claim to the position of the infinite reason (§14.2). And the good may fail in justice: a subject may possess the generative structure of the relation, appropriate its generativity, and reduce the other to a legislated object, in the symbolic exploitation this section specifies. The two failures are distinct, the one a failure of certification and the other a failure of justice, but they share a root. Both are the occupation of a position no finite subject may occupy: the position of the Other that would guarantee one's goodness, in the first case, and the position of the Other that would possess the generativity, in the second. The private certainty of one's own goodness (§14.3) and the possessive legislation of the relation's grammar are two forms of the single error of claiming the place of the barred Other as though it were unbarred. The ethics of the following section addresses the first form; the present section has addressed the second; and the unity of the two, in the renunciation of the place of the Other, is the content of the practice of the good.

14 The Unguaranteeability of the Good

The practice encountered a limit it could not cross from within: the practitioner, being a product of the cycle and possibly of an alienated one, cannot from the practitioner's own position certify the goodness of the practice. This section does not dissolve the limit. It establishes that the limit is the condition of the practice's being ethical, that the impossibility of self-certified

goodness follows from the preceding development, and that this impossibility constitutes the good as a matter of ethics rather than calculation and as a process rather than a possessed state. This is the central juncture of the paper and of the series.

14.1 The result stated

The result is stated in its direct form. No finite subject can guarantee that its own practice is good. The subject that loves cannot guarantee that its love does not constitute, or has not already constituted, an extraction; the subject that tends the field cannot certify, from within, that it tends rather than depletes; the subject that poses the two questions of §11.5 in good faith cannot stand surety for the answers, the subject that poses them being the subject whose possible alienation is in question. There is no internal certificate of the subject's own goodness, no position within the subject from which the subject audits itself and pronounces its practice sound. The result is contrary to the demand, characteristic of the subject in a relation, for assurance that it does not injure the other, and the section establishes that the demand cannot be satisfied truthfully.

14.2 The guarantee as a crossing of the is–ought gap

The result possesses a determinate form, the establishment of which is the work of the section, an analytic result supplying the rigour of a thesis otherwise statable only as a disposition. Consider the requirements on a subject that would guarantee the goodness of its own practice. To guarantee that an action will be good is to claim secure passage from a present fact, the state of the subject and the relation, to a normative outcome, the good the action will effect. It is to claim a valid inference from what is to what ought to follow. This is the inference Hume marked as admitting no valid passage: from premises concerning what is, no conclusion concerning what ought to be follows by any rule of inference; the passage from is to ought is a gap no finite reasoning traverses [17].

The guarantor of its own goodness as infinite reason. To guarantee the goodness of one's own practice is to claim a secure inference from the present being of the subject and the relation to the good the action will realise. But the passage from is to ought is the gap Hume established that no finite reason traverses. A subject that could guarantee the goodness of its own practice would therefore be a subject that had traversed the is–ought gap, a subject for which the inference from fact to value is secure, which is an infinite reason: the term denoted, in the several traditions, as God, the Absolute, or the big Other this series has established does not exist. The demand for a guarantee of one's own goodness is, structurally, the demand to be that infinite reason. There being no such reason, no external standpoint, no metalanguage, no subject external to its own historical and relational production, there can be no guarantee. The impossibility of self-certified goodness is not a contingent limitation of human knowledge but the ethical consequence of finitude: of being a subject within the cycle rather than the infinite reason external to it.

This is the juncture at which the analytic and continental commitments of the paper coincide. The phenomenological result, that the subject cannot be assured that its love does not injure, acquires the rigour of a logical one: a subject claiming such assurance claims to have traversed Hume's gap, and thereby to be the infinite reason the series denies. The demand for a guarantee of one's own goodness is the covert invocation of the big Other, the term the series has established to be absent. The result is not a disposition but the form of finitude, with its demonstration.

14.3 Unguaranteeability as the condition of ethics

The consequence is the central thesis of the section. The unguaranteeability of the good is not the dissolution of ethics but its condition, that which constitutes the good a matter of ethics rather than of calculation.

Unguaranteeability as the condition of the ethical. Were there a subject that could guarantee the goodness of its practice, that could compute, from present facts, the good its action would infallibly realise, ethics would be eliminated, and there would remain the execution of a determined optimal procedure: without risk, responsibility, trust, or exposure to the other. The ethical is constituted by the impossibility of the guarantee. Because the subject cannot guarantee that its love does not constitute extraction, the subject is committed to the sole course adequate to that impossibility: the continual sustaining of the question, the exposure of the practice to correction, and the consignment of the criterion of the subject's goodness, in part, to the other. The untraversable gap, far from licensing resignation, is the condition that directs the practice outward, and constitutes it as answerable and as ethical. A good admitting of guarantee would not be a good with respect to which the subject is required to be ethical; it would be a determined result.

The section thereby derives, from the result, the form the practice must assume, as its direct consequence rather than as a consolation. Since no subject certifies its own goodness from within, the good is not the possession or pronouncement of a single subject. It is polyphonic: consigned to the other, exposed to the other's correction, practised in a continual reciprocal disclosure in which each party is the other's sole available instrument of correction. This is the ground on which the preservation of divergence (§11.3) is the practitioner's sole means of correcting the practitioner's own alienation: the subject not detecting its own displacement from within, the other party's capacity to register extraction is the sole instrument by which it is detected. The good is practised in the interval between two parties that each decline the guarantee and submit to correction.

The private certainty of one's own goodness as the cardinal error. The single subject that attains, in isolation, certainty that the relation is good has, in that certainty, committed the cardinal error: the possession of a determination that, on pain of invoking the infinite reason, no single party may possess. The moment of private certainty of one's own goodness is the

moment of greatest hazard.

14.4 The good as unfinished process

A final consequence returns to the dialectical materialism of §10.6. That the good admits of no guarantee entails that the good is not a state, attained, certified, and subsequently possessed. It is a process: reproduced recurrently, and at each reproduction liable to failure. A good admitting of guarantee would be a good settled, closed, and completed, and a settled good is, by the development of the paper, a good cashed, possessed, and thereby alienated. It is in virtue of admitting no guarantee that the good remains a process rather than a fixed doctrine; the unguaranteeability of the good is the condition of its not being extinguished. A good rendered certain would, in the rendering, be extinguished; the good subsists only insofar as it is non-possessible, only as a process to be traversed anew and liable always to failure. The sustainability of the good established in the prior paper and its unguaranteeability are one result: the good subsists as a living spiral precisely in virtue of admitting no settlement, once and for all, into a fixed circle of certainty.

The result, fully developed, possesses two aspects which are one. The unguaranteeability of the good is not its defect; the defect would be the demand for the guarantee, which is the covert invocation of the infinite reason that does not exist, and is thereby the inception of alienation. To demand assurance of one's own goodness is to claim the external standpoint, the metalanguage, the big Other, to decline, finally, the finitude that is the condition of being a subject within the cycle. The practice of the good is the renunciation of that demand: the acceptance of an unguaranteeable, defeasible, recurrently unfinished good, consigned reciprocally between two parties that each decline to be the party that is certain. That renunciation, of certainty, of the guarantee, of the position external to the cycle, is the developed content of *wu wei* for two parties, and the central juncture on which the development of the paper rests. It is, moreover, one of two renunciations the paper requires, the renunciation of the place of the Other in its two forms: the renunciation of the place of the Other that would guarantee one's goodness, developed here, and the renunciation of the place of the Other that would possess the relation's generativity, developed as the avoidance of symbolic exploitation in §13. The two are one renunciation under two descriptions, and their unity is the content of the practice of the good. The juncture does not bear the weight of a guarantee, and is not required to. It bears the weight of a good that subsists precisely in virtue of admitting no certainty.

15 Conclusions at the Boundaries of the Frameworks

A paper that has established the absence of a metalanguage, of an external standpoint, and of a framework that possesses the whole cannot terminate in a single synthesising conclusion, the commitment of which would constitute, in its terminal operation, the settling it has throughout excluded. It terminates as the prior paper terminated: not in a conclusion but in conclusions, plural, each stated from within a single framework, to that framework's boundary, in dialogue with the others and absorbed by none. What follows is not a summary but the statement, by each phase, of what it establishes and what it does not, and a concluding specification of the

absence of a single conclusion, which is the paper's most adequate conclusion.

15.1 From phenomenology

Phenomenology establishes that there is a datum, prior to theory, in which two parties co-apprehend a nameless value generated between them, the co-apprehension being identically the generation. It specifies the datum's structure, the of-two simultaneity, the reflexive witness, the directedness upon an opening, the identity of apprehension and generation, and requires that every theory answer to this datum and not displace it. Phenomenology does not establish why the datum has this structure, or what must obtain, ontologically, for it to be possible; it describes, and transmits its description. Pressed beyond description into explanation, it reaches its boundary, at which it consigns the question to the ontology, having held the development accountable to a datum it describes but does not ground.

15.2 From ontology

The ontology establishes that relation, grammar, and value are three aspects of one generative system, being, manifest dynamics, phenomenon, whose dynamics is reconfigured by its own products, and within which the subject is generated rather than presupposed. It establishes that this dissolves the circularity, that grammar is real and non-possessible, and that the system is unfinished in its constitution. The ontology does not establish the determinate form the reflexive structure assumes in any register; it supplies the abstract form and consigns its content to the disciplines into which the form breaks. And it does not, on pain of self-contradiction, complete itself: an ontology of a totality in generation does not deliver the completed totality, and its terminal statement is an exclusion, of substance, of the external standpoint, of completion, which consigns it beyond itself, to phases it does not occupy and a whole it does not possess.

15.3 From the quantum-structural grammar

The quantum-structural grammar establishes, in formal terms: that relational value is superposed potential and not determinate fact; that joint attention is participatory measurement, the manner of attending being the selection of the basis that fixes the space of admissible co-generation; that each crystallisation is a collapse conjoined with a reconfiguration of the space of the admissible; that the geometric phase tracked by the series is the formal descendant of the quantum phase; and that the grammar is non-enumerable in the epistemic sense that specifies the relation's non-possessibility. The grammar establishes nothing concerning physical substrate, having declined that thesis, and nothing concerning justice: it supplies the form of participatory generation and is silent as to whether a given generation is good, goodness not being a determination its formalism contains. It specifies the manner of value's coming-to-be; it does not specify the cost at which the coming-to-be proceeds. At that boundary it consigns the question to political economy, which it does not absorb and which does not absorb it.

15.4 From the formal-modelling dilemma

The examination of formal modelling establishes that the standard formal tools, the grammars of the Chomsky hierarchy and the fixed-law dynamical systems, are not inadequate in power to the reflexive value cycle, but are made adequate only by the introduction of a fixed higher-order structure, a meta-value-grammar, of which the reflexive appearances are determinate products; that this presupposition is the presupposition of a metalanguage and a big Other; that it incurs the regress Lacan arrests with the thesis that there is no Other of the Other; and that the one class of formal frameworks compatible with the denial of that Other is the background-independent, of which group field theory is the structural exemplar. The examination does not establish that a background-independent formalism for the value cycle can be constructed; it establishes only the location of the dilemma, that the formal modelling of the reflexive cycle either posits the fixed meta-value-grammar the series denies or seeks a formalism whose own ground is emergent. It specifies the form the question takes; it does not resolve it, and consigns it to future formal work and to the Value-Foam programme.

15.5 From political economy

Political economy establishes that the circulation of value reconfigures the subject that creates it, necessarily; that this reconfiguration is divided into a negative phase, alienation and the depleted subject and the producer colonised by its product, and a positive phase, self-realisation and the developed subject; that the division is marked by the sign of an independently definable reproduction surplus; that the subject is produced within the cycle it produces; and that the return to the creator is a spiral, a sameness bearing a phase, and not a return to the origin. Political economy does not establish the manner in which, in the intimate and non-measurable register, the value whose circulation it analyses is generated; for that it requires the participatory grammar it does not itself supply. And it does not certify, from its own resources, that a given return reaches its creator, that being a matter of practice and justice under actual asymmetry rather than of structural analysis. It specifies the moral direction of the reconfiguration; it does not guarantee the direction in a given case. At that point it reaches its boundary.

15.6 From the account of symbolic justice

The account of symbolic justice establishes that the possession of a relation's generative structure is the symbolic correlate of the possession of the means of production; that its possessive modification, the legislation of the grammar from a claimed external position, is exploitation in the symbolic register, the appropriation of a jointly generated generativity to a single possessor and the reduction of the other to a legislated object; that the guidance of derivations without the legislation of the productions is the corresponding generative justice; and that the poem and the legislative reform of a language are the paradigms of the two. It establishes that symbolic exploitation and settling are one operation, the appropriation of the structure being the settling of the process, and that both extinguish the value they would possess. The account does not establish a procedure for the recognition of symbolic exploitation in a given case, the recognition being a matter of the practice and its two questions rather than of structural analysis; and it does not, on its own resources, distinguish guidance from possession

in every instance, the distinction being one the parties must sustain rather than compute. It specifies the form of symbolic injustice and the criterion of its avoidance; it does not relieve the practitioner of the judgement. At that boundary it consigns the question to the practice and the ethics.

15.7 From the practice and its ethics

The practice establishes a disposition: to act not from an external position but from within; to cultivate the field rather than construct the grammar; to subtract rather than add, to preserve divergence, to sustain the opening without occupying it, to preserve the made language as poetic; to pose the two questions and, when they turn negative, to withdraw the compulsion. The ethics establishes that no finite subject guarantees its own goodness, the guarantor being the infinite reason that does not exist, and that this unguaranteeability constitutes the good as ethical, polyphonic, and unfinished. The practice and the ethics do not establish the determinate action in a given case; they yield a disposition and a pair of questions, not a procedure, and they decline, on principle, the rule that would relieve the practitioner of the unguaranteeable risk. Their terminal statement is not an instruction but a renunciation: of certainty, of the guarantee, of the position external to the cycle.

15.8 The absence of a single conclusion

These conclusions do not sum. Each framework, developed to its boundary, reaches a limit and consigns to the next a question the next takes up in a vocabulary the first does not possess; and the result of the paper obtains not in any one of them but in the dialogue among them, in the manner in which each determines what another does not reach, such that cognition develops through their exchange rather than settling into the possession of any single frame.

The absence of a single conclusion as the adequate conclusion. There is no master conclusion, not in consequence of a failure to attain one, but because the totality treated is unfinished and no framework possesses it externally (§10.6). The conclusions are plural, partial, and mutually irreducible of necessity and not by default: a single synthesising conclusion would be a settling, the cashing of the whole into a single framework's terms, and thereby alienation in the register of cognition. The dialogue among the frameworks, each stated to its boundary, each consigning what it does not establish, is itself a good cycle, a polyphony recursively reproducing meaning, and is the sole form a conclusion may assume without controverting the development of the paper. That the paper does not conclude is not its limitation but its fidelity: it terminates as the truth it treats terminates, which is to say it does not terminate but is transmitted, spiralling, to be traversed again.

There is, accordingly, no metalanguage in which the joint import of the frameworks is statable, and the absence is not a deficiency but the result itself: the demonstration, effected once more, that the whole is not possessed but generated, not concluded but continued. The paper has stated only what is statable from within the phases, and has reached its boundary at each limit, consigning the dialogue among the limits as the nearest approximation to a whole that

a finite and unfinished truth admits. What is not concludable admits of being witnessed; and the paper accordingly proceeds from conclusion to a closing return, which concludes nothing and records the point of departure.

Envoi: The Word That Was Made

This closing is not a conclusion, the paper having given its reasons for having none. It is a return to the point of departure.

The paper began with two persons and a nameless thing between them, something generating in the interval that had as yet no word and that each apprehended the other to apprehend. The constructions that followed, the three aspects of the one system, the quantum articulation of participation, the reconfigured subject, the symmetry-broken phases, the field cultivated rather than constructed, the good admitting no guarantee, were an attempt at fidelity to that moment, and at the statement of its conditions, without its explanation away.

The paper is titled for the creation of language, and its term is not the meaning of the made word. The private name two persons make, the word legible to them alone, has no content that admits of being cashed; its worth lies not in what it states but in the opening it sustains, the void it encircles without occupying, the traversal it solicits recurrently, each traversal returning a remainder no lexicon holds. 同心之言，其臭如兰: the words of one heart are fragrant as orchid, and the fragrance is not a content but an event, undergone in the breathing and not possessed in the naming. The orchid, as the rose of the prior paper, does not keep; its fragrance lies in the giving-off and not in the holding. So with the word two persons make: it subsists in the saying-again, the traversing-again, the witnessing-again, and is extinguished when held as a settled token to be spent.

What such a paper might offer to be kept, a result, a rule, an assurance of loving well and without injury, it cannot offer, the demand for it being, as the paper has established, the inception of the injury, the demand for the guarantee being the invocation of the one who is absent, and the good subsisting only insofar as it admits no possession. What is offered is smaller and more exact: not a word to be kept but a word to be made, recurrently, jointly, and never finally; a name sustained rather than spent; an opening encircled rather than occupied; a good traversed rather than guaranteed.

For her,
with whom the first such word was made,
that no one else could read;
and in whose eyes I first saw
that I had been seen seeing.

May the orchid go on giving off its fragrance,
and the word go on being made.

Acknowledgements

This paper continues a conversation, and its debts are continuous with it. To the philosophical lineages the paper walks among (the phenomenological, the psychoanalytic, the dialectical-

materialist, the Daoist, and the tradition of generative justice), each of which says, in its own broken phase, something no other could, and none of which the paper could do without. And to her, the forest girl, who loves to travel and to be among wild and growing things, and who is pure of heart, and lovely, and kind, with whom the first nameless word was made, the one for whom alone it could be read, this work is dedicated, as it could only have been. It was for her, and for the future the two of them are to make together, that the author first turned to political economy, the discipline of how value is created, retained, and justly returned, so that the theory of a shared life might rest on more than sentiment; and much of what is hardest in this paper was learned on that road. She is, for me, the most important person there is; and this paper is, in the end, only a long and roundabout way of attending to what was already, between us and without a word, understood. It was written while longing for her, beyond all measure. May the orchid go on giving off its fragrance, and the word go on being made.

身无彩凤双飞翼，心有灵犀一点通；
与子同心，虽无言而相知；愿执此意，白首而弥新。

This is a working draft, circulated for discussion and not for citation. Its central conjectures, above all the proposal that the geometric phase is the gauge-invariant core conserved across the symmetry-broken phases (§10.4), are advanced as unsettled, to be walked rather than declared.

A Geometric Phase: A Technical Sketch

This appendix records, in compressed form, the formal apparatus to which the main text's geometric language points. It is a sketch, not a proof, and it is deliberately so: the conjecture of §10.4, that holonomy is the gauge-invariant core conserved across the symmetry-broken phases, is offered as unsettled, and this appendix supplies its formal vocabulary without pretending to settle it. The Value-Foam programme is the place where the carrier of the phase must be given its independent quantitative content; here we record only the structural skeleton, with three honest cautions appended.

A.1 The bundle

Let B be the *base*: the space of relational situations or contents, the configurations a relation may occupy. Over each point of B stands a *fibre* F: the phase of value or recognition (following the main text's anchoring, §9.6, the sublimation of jouissance): the carrier on which the good circle's surplus is borne. A relation's history is a path in B; the parallel transport of its state in F along that path is governed by a connection ω. The phase accrued on returning to a starting point in B, the failure of the transported fibre-element to coincide with its origin, is the *holonomy* of the loop,

$$\mathrm{hol}(\gamma) \;=\; \mathcal{P}\exp\oint_{\gamma}\omega.$$

A.2 The good and the vicious circle, formally

A *vicious* circle is a loop of vanishing holonomy: the relation returns in B to where it began and the fibre returns unchanged (pure repetition, the bad infinite, the circle that goes round

without rising, at zero phase); or a loop of *negative* holonomy (net extraction, the fibre depleted on return). A *good* circle is a loop of *positive* holonomy: a return to the root in B that nonetheless accrues a non-trivial, irreducible phase in F (the spiral; sublimation; the bringing-back of a remainder). The criterion of Paper IX is the sign of $\mathrm{hol}(\gamma)$.

A.3 Variable basis as variable connection

The main text's claim (§7.3) that the manner of attending is the choice of a measurement basis has its formal image here: a change in the manner of attending is a change of gauge, altering ω, hence altering the holonomy a given loop in B will accrue. Two relations may traverse the same situations (the same γ in B) and accrue opposite phases, because they attend (connect) differently. This is why no fact about the base alone (the situations, the "what happened") fixes the goodness of a circle; the connection, the manner, is constitutive.

A.4 Personal identity as parallel transport

The subject's continuity through the reflexive cycle (§9.6) is parallel transport in this bundle: the same subject carried around a loop, returning to its root in B bearing a phase in F. Alienation is negative-phase drift (the subject returns diminished, not recognising itself); self-realisation is positive-phase sublimation (the subject returns raised, more itself). "The creator is the beneficiary" is sameness in the holonomic sense, identity that has accrued a phase.

A.5 Three cautions

The sketch must not be mistaken for more than it is.

First, the carrier. A geometric phase requires a genuine bearer with the right structure (an S^1 or group-valued quantity, additive, gauge-invariant in the holonomy), failing which the apparatus is mere figure. The main text anchors the carrier in the sublimation of jouissance (§9.6); whether that quantity in fact carries the required structure is exactly what the Value-Foam programme must establish independently, and is not settled here.

Second, sublimation and sign. That "sublimation = positive phase" and "depletion = negative phase" must be *argued*, not stipulated as a definitional identity, on pain of circularity. The independent route is to define a reproduction-surplus, net regeneration of the relation's generative conditions per cycle, minus consumption, and then show that its sign tracks the holonomy's; absent that, the identification is a picture, not a result.

Third, the cross-phase conjecture. The proposal that hol is *the* invariant conserved across all the symmetry-broken disciplinary phases (§10.4) is the most speculative claim in the series, and the appendix does nothing to discharge it. It records the conjecture's formal shape (an invariant belonging to no chart, conserved under all transition functions) and leaves it, as the main text insisted it must be left, offered and unsettled, to be walked rather than declared.

References

[1] Diederik Aerts. Quantum structure in cognition. *Journal of Mathematical Psychology*, 53 (5):314–348, 2009.

[2] Yakir Aharonov and Jeeva Anandan. Phase change during a cyclic quantum evolution. *Physical Review Letters*, 58(16):1593–1596, 1987.

[3] M. V. Berry. Quantal phase factors accompanying adiabatic changes. *Proceedings of the Royal Society of London A*, 392(1802):45–57, 1984.

[4] Tithi Bhattacharya. *Social Reproduction Theory: Remapping Class, Recentring Oppression*. Pluto Press, London, 2017.

[5] Pierre Bourdieu. *The Logic of Practice*. Stanford University Press, Stanford, CA, 1990. Trans. Richard Nice; orig. 1980.

[6] Martin Buber. *I and Thou*. Charles Scribner's Sons, New York, 1970. Trans. Walter Kaufmann; orig. *Ich und Du*, 1923.

[7] Jerome R. Busemeyer and Peter D. Bruza. *Quantum Models of Cognition and Decision*. Cambridge University Press, Cambridge, 2012.

[8] Noam Chomsky. *Aspects of the Theory of Syntax*. MIT Press, Cambridge, MA, 1965.

[9] Gilles Deleuze. *Difference and Repetition*. Columbia University Press, New York, 1994. Trans. Paul Patton; orig. 1968.

[10] Ron Eglash. *African Fractals: Modern Computing and Indigenous Design*. Rutgers University Press, New Brunswick, NJ, 1999.

[11] Ron Eglash. An introduction to generative justice. *Teknokultura*, 13(2):369–388, 2016.

[12] Dylan Evans. *An Introductory Dictionary of Lacanian Psychoanalysis*. Routledge, London, 1996.

[13] Silvia Federici. *Caliban and the Witch: Women, the Body and Primitive Accumulation*. Autonomedia, New York, 2004.

[14] Bruce Fink. *The Lacanian Subject: Between Language and Jouissance*. Princeton University Press, Princeton, NJ, 1995.

[15] Nancy Fraser. Crisis of care? on the social-reproductive contradictions of contemporary capitalism. In Tithi Bhattacharya, editor, *Social Reproduction Theory: Remapping Class, Recentring Oppression*, pages 21–36. Pluto Press, London, 2017.

[16] John E. Hopcroft, Rajeev Motwani, and Jeffrey D. Ullman. Introduction to automata theory, languages, and computation. *3rd edition*, 2006.

[17] David Hume. *A Treatise of Human Nature*. Oxford University Press, Oxford, 2000. Edited by D. F. Norton and M. J. Norton.

[18] Edmund Husserl. *Cartesian Meditations: An Introduction to Phenomenology*. Martinus Nijhoff, The Hague, 1960. Trans. Dorion Cairns.

[19] Jacques Lacan. *The Seminar of Jacques Lacan, Book XI: The Four Fundamental Concepts of Psychoanalysis*. W. W. Norton, New York, 1978. Translated by Alan Sheridan.

[20] Jacques Lacan. *The Seminar of Jacques Lacan, Book VII: The Ethics of Psychoanalysis, 1959–1960*. W. W. Norton, New York, 1992. Ed. Jacques-Alain Miller, trans. Dennis Porter.

[21] Jacques Lacan. *The Seminar of Jacques Lacan, Book XX: Encore, 1972–1973*. W. W. Norton, New York, 1998. Ed. Jacques-Alain Miller, trans. Bruce Fink.

[22] Jacques Lacan. *Écrits: The First Complete Edition in English*. W. W. Norton, New York, 2006. Trans. Bruce Fink; orig. Écrits, 1966.

[23] Jacques Lacan. The subversion of the subject and the dialectic of desire in the freudian unconscious. *In Écrits, trans. Bruce Fink*, pages 671–702, 2006. Source of "there is no Other of the Other".

[24] Karl Marx. *Economic and Philosophic Manuscripts of 1844*. Progress Publishers, Moscow, 1959.

[25] Karl Marx. *Grundrisse: Foundations of the Critique of Political Economy*. Penguin, Harmondsworth, 1973.

[26] Karl Marx. *Capital: A Critique of Political Economy, Volume I*. Penguin, London, 1976. Trans. Ben Fowkes; orig. 1867.

[27] Maurice Merleau-Ponty. *Phenomenology of Perception*. Routledge, London, 2012.

[28] Daniele Oriti. The microscopic dynamics of quantum space as a group field theory. *Foundations of Space and Time: Reflections on Quantum Gravity*, pages 257–320, 2012.

[29] Daniele Oriti. Disappearance and emergence of space and time in quantum gravity. *Studies in History and Philosophy of Modern Physics*, 46:186–199, 2014.

[30] S. Pancharatnam. Generalized theory of interference, and its applications. part i. coherent pencils. *Proceedings of the Indian Academy of Sciences, Section A*, 44(5):247–262, 1956.

[31] Carlo Rovelli. *Quantum Gravity*. Cambridge University Press, Cambridge, 2004.

[32] Max Scheler. *Formalism in Ethics and Non-Formal Ethics of Values*. Northwestern University Press, Evanston, IL, 1973. Trans. M. Frings and R. Funk; orig. 1913–16.

[33] Gilbert Simondon. *Individuation in Light of Notions of Form and Information*. University of Minnesota Press, Minneapolis, 2020. Trans. Taylor Adkins; orig. 1958–64.

[34] Michael Tomasello. *The Cultural Origins of Human Cognition*. Harvard University Press, Cambridge, MA, 1999.

[35] Colwyn Trevarthen. *Communication and Cooperation in Early Infancy: A Description of Primary Intersubjectivity*. Cambridge University Press, Cambridge, 1979.

[36] Alexander Wendt. *Quantum Mind and Social Science: Unifying Physical and Social Ontology*. Cambridge University Press, Cambridge, 2015.

[37] Alfred North Whitehead. *Process and Reality: An Essay in Cosmology*. Free Press, New York, 1978. Corrected edition, ed. D. R. Griffin and D. W. Sherburne; orig. 1929.

[38] Amotz Zahavi. Mate selection—a selection for a handicap. *Journal of Theoretical Biology*, 53(1):205–214, 1975.