The Dependence of Articulation on Relation

A Preliminary Discussion of Being, Knowledge, and the Limits of Self-Representation

Wanhong Huang

Abstract

Generative Relational Being holds that beings are constituted in relation and that knowledge emerges from relational dynamics. Taken together these two commitments generate a difficulty the framework has not addressed. If knowledge emerges from relational dynamics, and a formal system can articulate those dynamics, then a sufficiently powerful formalism appears able to exhaust what it articulates, which contradicts the long-standing position that an understanding of being precedes its logical expression. This paper resolves the difficulty and, in resolving it, states the framework's ontology and epistemology in a form the companion papers of this series presuppose without arguing. Three results are offered. The dependence of articulation on relation is asymmetric and non-temporal, so it is a relation of grounding and never a sequence of stages; a formulation as a chain of layers is shown to contradict the framework's own commitments. The relation between a being and the knowledge of it is neither identity nor separation, and the two failures are distinct errors with distinct consequences; the resulting position is stated as neither-one-nor- different in place of the weaker formula of non-duality. And complete self-representation is unavailable to a system that produces its own means of representation, for a reason internal to the framework in place of borrowed from any limitative theorem. Two consequences are drawn for the companion papers: the defect in a representation is ontological closure and never loss, and a generative event admits no locus among its participants.

Keywords. generative relational being; grounding; articulation; non-identity; self-representation

Draft. This is a working draft. It is circulated for comment, and its arguments, formulations, and open questions are subject to revision. Correction and criticism are welcome at huangwanhong@serendip.ngo.

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Use of generative artificial intelligence. Generative AI assistants (Anthropic's Claude and OpenAI's ChatGPT) were used extensively in preparing this manuscript: for literature survey, for drafting prose from the author's specifications, for adversarial review of the argument, for the construction of the figures, for consistency and citation auditing, and for typesetting. Formulations and objections arose in the course of that exchange as well as from the author. Every claim, argument, and citation was reviewed and decided by the author, who is responsible for the content and for any errors. Bibliographic details are to be verified against the primary sources before reliance.

Suggested citation: Wanhong Huang, *The Dependence of Articulation on Relation: A Preliminary Discussion of Being, Knowledge, and the Limits of Self-Representation*, working draft, 2026.

1 Introduction

Generative Relational Being holds two things at once. Beings are constituted in relation, so that what a party is cannot be given by an inventory of its intrinsic properties. And knowledge emerges from relational dynamics, so that a description is itself a product of the system it describes in place of a report delivered from outside it. Each commitment is defensible on its own. Together they generate a difficulty that the framework has not addressed, and the difficulty is the occasion for this paper.

The difficulty is this. If knowledge emerges from relational dynamics, and if a formal system can articulate those dynamics with sufficient power, then it appears that a sufficiently good formalism could exhaust what it articulates. The framework would then be committed to the availability, in principle, of a complete formal presentation of being. That conclusion contradicts a position of long standing, expressed in the claim that an understanding of being precedes its logical articulation, and it also sits badly with the framework's own treatment of representation elsewhere, where the gap between a party and the description made of that party is what the analysis turns on.

The resolution offered here has three parts, and each is stated as a result in place of a gesture.

The first concerns the form of the dependence between relation and articulation. The natural way to express the priority of relation is a sequence: relation, then being, then perception, then representation, then interpretation, then logic, with the last feeding back into the first. §4 argues that this formulation is unavailable to the framework. If beings are constituted in relation, and perception is a relation, then perception is constitutive of what is perceived as such and cannot be a stage downstream of it. The sequence reinstates precisely the two-stage picture, first the being and then the knowledge of it, that the framework's account of relational constitution rejects. What survives is an asymmetric dependence without temporal order: articulation presupposes relation, and relation does not presuppose articulation. That is a relation of grounding, and the contemporary literature on grounding supplies the vocabulary [Fine (2012), Schaffer (2009)].

The second concerns the relation between a being and the knowledge of that being. Two errors are available and they are distinct. To treat knowledge as separate from being is to reinstate an external position from which the being is surveyed, which the framework denies. To treat knowledge as identical with being is to remove the gap on which the framework's entire account of representation depends, since a representation that is what it represents cannot misrepresent, cannot be contested and cannot be revised. §5 states the position that avoids both and argues that the appropriate formula is *neither one nor different*, which asserts both halves, in place of the weaker formula of non-duality, which is heard by many readers as asserting identity.

The third concerns the limits of self-representation. §8 argues that a system which produces its own means of representation cannot represent itself completely, and that the argument is available from within the framework and requires no limitative theorem. A

formalism adequate to the relational dynamics would have to include its own production among those dynamics, and a formalism containing its own production has the exterior position the framework denies. Limitative results in logic are noted as the precise form the difficulty takes where the language is formal, together with the reason they cannot be relied upon here.

Two consequences are drawn for the companion papers of this series, and they are the reason this paper was written after those papers in place of before them.

The defect in a representation is not loss. It is *ontological closure*: the treatment of a current articulation as the being it articulates. §9 shows that this is the ontological statement of the admissibility condition defended in the companion paper on representational transformation, and that it supplies the motivation that condition was stated without.

A generative event admits no locus among its participants. §10 states the result and traces its consequence: any programme that would answer the invisibility of ordinary contribution by apportioning credit is attempting something for which no fact of the matter exists, and the companion paper on the legibility of contribution accordingly restricts itself to records of participation.

Two limits are fixed at the outset. This paper argues within the framework and does not defend the framework's founding commitments, which are stated in the work establishing Generative Relational Being and are taken here as given. And the paper borrows from three traditions whose specialists will each find the borrowing partial. §2 states the terms of the borrowing and the disciplines observed, and the reader should judge the argument by whether the borrowed material is used correctly for the purpose stated in place of whether it exhausts the tradition it comes from.

The argument proceeds in five parts. Part I fixes the object (§2) and states the prior formulations (§3). Part II establishes the form of the dependence (§4), states the position between separation and identity (§5), and derives the non-exhaustion result (§6). Part III treats the partiality of knowledge (§7) and the limits of self-representation (§8). Part IV draws the two consequences for the companion papers (§9, §10). Part V records the positions declined (§11) and the limits of the account (§12). Part I

The Problem of Articulation and Its Ground

2 Scope of the Account and the Terms of Its Borrowing

This section fixes what the paper is about and, at greater length than is usual, the terms on which it draws from traditions outside its own. The length is warranted by the paper's exposure: it makes claims in ontology and epistemology where the companion papers of this series make structural claims, and it draws on three bodies of thought whose specialists will each find the borrowing partial. Stating the terms in advance lets a reader judge the argument by whether the borrowed material is used correctly for the stated purpose.

2.1 The object of the account and its three restrictions

The object is the relation between relational becoming and its articulation in perception, representation, interpretation and logic. Three restrictions bound it.

The first is to *argument within the framework*. The founding commitments of Generative Relational Being, that beings are constituted in relation and that knowledge emerges from relational dynamics, are taken as given. This paper asks what follows from them, and a reader who rejects them will find the results conditional on premises they reject.

The second is to *the form of the dependence*, in place of its content. The paper argues that articulation depends asymmetrically on relation and states what kind of dependence that is. It supplies no account of which relational configurations produce which articulations, and no theory of how any particular articulation arises.

The third is to *consequences the companion papers require*. Two are drawn, at §9 and §10. Others are available and are left to further work, since a paper of this kind is improved by fewer claims defended further.

2.2 The terms on which Heidegger is used

The formulation this paper begins from is the injunction to let beings be as beings in place of as knowledge and thence as means. Three disciplines govern its use.

The formulation is used for its *structure* and not as an interpretation of Heidegger's philosophy. The structure is a two-step reduction, and the second step carries the weight: the danger identified is the composite, in which a being is rendered as knowledge and the knowledge then renders it available as resource. Nothing here turns on the reading of Being and Time, on the question of the turn, or on any of the disputes that occupy that scholarship.

The formulation is *revised in the course of use*. §5 argues that Generative Relational Being cannot accept the opposition between being and knowledge in the form the injunction states it, since on this framework knowledge is one mode of a being's relational articulation and no external imposition upon it. What survives the revision is stated there, and the revision is offered as a departure and never as an exegesis.

No claim of fidelity is made. A reader who holds that the revision misrepresents Heidegger may hold that and lose nothing in the argument, provided the two-step structure is granted.

2.3 The terms on which the Buddhist formulations are used

Two formulations are used: the doctrine of neither-one-nor-different, and the statement that there is no teaching that can be spoken. Three disciplines govern them.

They are used as *formulations of a structure* available for inspection, and no soteriological, doctrinal or sectarian claim is made or implied. The traditions in which these formulations arose have purposes this paper does not share, and nothing here should be read as an interpretation of those purposes.

The choice between them and the more familiar formula of non-duality is *argued and not assumed*. §5 gives the reason: non-duality is heard by many readers as an assertion of identity, and the position defended here requires non-identity as much as it requires non-separation.

Where the framework's use departs from the traditional one, this is stated at the point of use. In particular, the framework posits no essence behind an articulation, and the non-exhaustion result of §6 is obtained from the openness of relational becoming and never from a substance that articulation fails to reach.

2.4 The terms on which formal and physical results are used

Two bodies of result are drawn on: limitative theorems in logic, and the treatment of subsystems in an entangled composite. Four disciplines govern them, and they are the same disciplines the companion paper on loop observables states for its own borrowing.

No physical claim is made. Nothing here asserts that social or cognitive systems exhibit any physical phenomenon, obey any physical law, or operate at any physical scale.

Every borrowed structure is given a use-specific statement before it is used, and connotations the statement does not license are excluded at the point of definition.

Where a result does not transfer, the paper says so and declines to lean on it. §8 states that the limitative theorems govern formal languages, that the articulations at issue here are not formal languages, and that the theorems are therefore offered as the precise shape the difficulty takes in a case where it can be made precise, in place of as a proof of the general claim.

The general claim is established independently, from within the framework, so that a reader who rejects every transfer retains the argument.

2.5 Positions declined in advance

Four positions are declined and the declinations hold throughout.

The paper asserts *no essence*. The non-exhaustion of a being by its articulation is obtained from the openness of relational becoming, and a reader who reads it as positing a hidden nature behind appearances has read it against §6.

The paper asserts *no mysticism about logic*. Logic, mathematics and formal representation are treated as real, powerful and productive, and the argument concerns what they presuppose in place of what they lack.

The paper asserts *no criterion of justice*, and no normative conclusion of any kind follows from it directly. The consequences at Part IV are consequences for the structure of conditions stated elsewhere.

The paper asserts *no priority of the practical over the theoretical*. That relational becoming grounds articulation is a claim about dependence and no claim about the relative worth of practice and theory.

3 Prior Formulations of the Priority of Relation

This section states the formulations already available and fixes for each what it settles and what it leaves open. The method is concession first, as in the companion papers of this series. Because this paper argues in a crowded field, the section is longer than its counterparts and the differentiations are correspondingly narrower. It closes with a statement of the residue.

3.1 Mediation in Hegel

Hegel's treatment of mediation [Hegel (1977)] holds that immediacy is never simply given, that what appears as an immediate presence is the result of a process which the appearance conceals, and that a determination is what it is through its relations to what it is not. The priority of relation over intrinsic determination is therefore not novel and the priority belongs here.

The concession is complete. The differentiation is that Hegel's mediation is teleological in its overall movement, and this framework holds no such movement, its companion work having declined every direction of travel. What is taken is the structural point that an articulation carries the process that produced it and that the process is not visible in the articulation.

3.2 Standing-reserve and the two-step reduction in Heidegger

The formulation that occasions this paper holds that a being should be let be as a being in place of as knowledge and thence as means. Read structurally, it identifies a two-step reduction in which a being is rendered as knowledge and the knowledge in turn renders it available as resource, and the danger identified is the composite [Heidegger (1977)].

The concession is complete and the two-step structure is used throughout, most directly at §9. The differentiation is stated at §2 and argued at §5: this framework cannot accept the opposition between being and knowledge in the form the injunction states, since knowledge is here one mode of a being's relational articulation in place of an imposition upon it from outside. What replaces the opposition is a distinction between an articulation and its closure, and the injunction survives the replacement in a form that no longer requires knowledge to be the adversary.

3.3 Neither one nor different in Madhyamaka

The formula of neither-one-nor-different holds that two terms may be neither identical nor separate, and that asserting either exhausts a possibility the case does not permit. Its classical statement is Nāgārjuna's, where it is applied to relations between cause and effect, part and whole, and self and aggregates [Nāgārjuna (1995)], and it is elaborated across the later commentarial literature.

The concession is that the formula is old and this paper adds no part of it. The differentiation is one of application: the terms placed in the relation here are a being and the knowledge of that being within a framework holding that knowledge emerges relationally, and §5 argues that the framework requires the formula and cannot make do with the weaker formula of non-duality. The traditional purposes of the formula are not shared and §2 says so.

3.4 Grounding in contemporary metaphysics

The literature on metaphysical grounding supplies exactly the relation this paper needs: an asymmetric, non-causal, non-temporal relation of dependence, under which one fact or entity holds in virtue of another [Fine (2012), Schaffer (2009)]. Grounding is irreflexive and asymmetric, it does not require temporal precedence, and it is distinguished from causation and from supervenience.

The concession is complete and the vocabulary is taken over without modification. §4 uses it to state that articulation is grounded in relational becoming, and the whole content of that section's negative argument is that a chain of stages is the wrong form and grounding is the right one. The differentiation is that the grounding literature is largely concerned with the relation between levels of fact in a static ontology, while the relata here are a becoming and its articulations, and §4 states what that requires of the relation.

3.5 Relational constitution in process metaphysics and structural realism

The claim that beings are constituted in relation has a developed metaphysical literature and this paper's founding commitment restates a position already held there. Whitehead's process metaphysics takes actual entities to be constituted by their prehensions of other entities, so that what a thing is is settled by how it takes up what is other than itself [Whitehead (1978)]. Cassirer traces the movement from substance concepts to function concepts and argues that the relational form is the more fundamental [Cassirer (1923)]. Ontic structural realism holds that structure is ontologically primary and that relata are derivative or dispensable, and Ladyman and Ross state the strong version [Ladyman & Ross (2007)].

The concession is complete and this paper adds no part of the position. What it adds concerns a question those accounts do not raise: given relational constitution, what follows for the completeness of a system's articulation of itself. Whitehead and Cassirer are concerned with the constitution of entities, and structural realism with what physical theory commits us to; neither asks after the standing of a relational system's representations of itself, which is the object of §8.

One differentiation must be recorded because it bears on §6. The strong structural realist position dispenses with relata, and this framework does not: it holds that beings are constituted in relation and that there are beings so constituted. The non-exhaustion result requires a bearer whose further relations are open, and an account with no relata at all

would state it differently.

3.6 Intra-action and the priority of phenomena in Barad

Barad's agential realism holds that the primary ontological unit is the phenomenon in place of independently existing objects, that what she terms intra-action produces the boundaries and properties of the components, and that an apparatus enacts an agential cut which resolves an indeterminacy in place of revealing a pre-existing separation [Barad (2007)]. The account is developed from the measurement situation in quantum mechanics and is explicitly a philosophical elaboration of it.

This is the closest available position to §7 and the concession must be unreserved. The argument that a characterisation of a party presupposes a division of the world which the characteriser performs, and that the division produces the parts in place of finding them, is Barad's. The formal case at §7.3 is the case her account is built from.

Two differentiations are available. Barad's account is developed toward an ethics and an account of scientific practice in which the cut is itself a site of responsibility; the present paper draws its two consequences at Part IV and takes no position on the wider programme. And the argument of §8 is independent of her account: it uses the asymmetry of grounding and the non-identity of an articulation with its object, neither of which is a commitment of agential realism.

3.7 Understanding as mediated in Gadamer

Gadamer's hermeneutics [Gadamer (2004)] holds that understanding is never unmediated, that an interpreter approaches a matter from within a tradition that is a condition of the approach in place of an obstacle to it, and that no interpretation reaches its object from nowhere.

The concession is complete and the framework's account of interpretation is consistent with it throughout. The differentiation is that the mediation Gadamer analyses is historical and linguistic, while the mediation at issue here is relational in a wider sense that includes the material and the pre-linguistic, and §4 requires the wider sense in order for the grounding claim to have the direction it has.

3.8 Autopoiesis and the observer in systems theory

The systems-theoretic tradition [Maturana & Varela (1980), Luhmann (1995)] holds that a system produces its own elements and its own criteria, that observation is an operation of a system and never a view from outside, and that a description of a system is produced by some system.

The concession is complete and the negative claim is shared without reservation. The differentiation appears at §8: the tradition establishes that there is no external position and stops there, while this paper asks what follows for the completeness of a system's self-representation and answers that a determinate limit follows.

3.9 Enaction and the constitution of a world

The enactive tradition in cognitive science [Varela, Thompson & Rosch (1991)] holds that a cognitive system and its world are brought forth together, that perception is a mode of activity in place of a reception of data, and that what counts as an environment is settled by the coupling in which a system stands.

The concession is complete and this is the closest naturalistic cousin of the framework's account of relational constitution. The differentiation is that the enactive account is addressed to cognition and its biological basis, while the argument here concerns articulation in the wider sense that includes institutional and formal representation, and §9 treats a form of closure that has no counterpart in the biological case.

3.10 Limitative results in logic

Tarski's result on the undefinability of truth establishes that a sufficiently expressive formal language cannot contain a predicate expressing truth for its own sentences, and Gödel's results establish limits on what a sufficiently strong consistent formal system can prove about itself [Tarski (1936), Gödel (1931)].

The concession is complete and no part of these results is claimed. §8 states carefully what they do and do not supply here: they establish the general shape of the difficulty in the case where the representing system is a formal language, and the articulations at issue in this paper are not formal languages, so the results are cited as the precise form the difficulty takes where it can be made precise and never as a proof of the paper's claim. That claim is established separately and from within the framework.

Claim 3.1. (The residue left by prior formulations). *Existing formulations supply the mediation of immediacy, the two-step reduction of a being to a resource, the formula of neither identity nor separation, an asymmetric non-temporal relation of dependence, the situated character of understanding, the absence of an external observer, the joint constitution of a system and its world, and limits on the self-description of formal languages. None states what follows, for the completeness of self-representation, from the conjunction of two claims: that beings are constituted in relation and that knowledge is itself one of the relational system's products. That conjunction, and the results it yields, are the object of this paper.*

Part II

The Form of the Dependence

4 Grounding Distinguished from a Sequence of Stages

This section fixes the form of the dependence between relational becoming and its articulation. Its objective is to establish that the dependence is grounding and that a formulation as a sequence of stages is unavailable to the framework, and its method is to state the se-

quence in its most natural form, to give the argument that defeats it, and then to state what survives. The section closes with what the grounding claim does not assert.

4.1 The sequence formulation and its appeal

The priority of relation is naturally expressed as an ordering. Relational dynamics occur; beings emerge within them; the beings are perceived; the perceptions are represented; the representations are interpreted; the interpretations are articulated logically. Each stage takes the previous as its material, and the last returns to the first, since a law changes conduct, a theory changes technique, and a narrative changes what is done.

The formulation is appealing for two reasons. It expresses the asymmetry directly, since nothing in the sequence runs backwards except by the return. And it locates the phenomena the companion papers analyse: loss occurs at the transition from perception to representation, and the causal efficacy of description is the return of the last stage to the first.

4.2 The argument that defeats the sequence

The sequence is unavailable to this framework, and the argument is internal.

Perception is a relation. On the framework's founding commitment, beings are constituted in relation; so a being's standing as a perceived being is constituted in the relation of perception and no antecedent constitution supplies it. Perception therefore cannot be a stage that takes an already constituted being as its material, since what it would take as material is partly its own product.

The same argument reaches further up the sequence. Representation is a relation, and an institution's representation of a person constitutes that person as an occupant of a category which the person did not occupy before the representation, as the companion paper on transformation establishes at length. Interpretation is a relation, and a community's interpretation of an act constitutes it as an act of a kind.

The general form is this. A sequence of stages requires that each stage have material antecedently available to it. Where the stages are relations, and where being is constituted in relation, no stage has material antecedently available in the sense the sequence requires. The sequence therefore reinstates the two-stage picture, first the being and then the knowledge of it, that the framework's account of relational constitution was introduced to replace.

4.3 The dependence that survives the argument

What survives is an asymmetric dependence carrying no temporal order.

Claim 4.1. (The grounding of articulation). *Articulation is grounded in relational becoming: an articulation holds in virtue of the relational configuration that produces it, and no relational*

configuration holds in virtue of an articulation of it. The relation is asymmetric, irreflexive, and carries no claim that the ground is temporally prior to what it grounds.

The asymmetry is established by an availability argument in each direction. Relational becoming occurs where nothing articulates it, and the framework requires this, since otherwise the emergence of articulating beings within a relational world would be unaccountable. Articulation does not occur where nothing relational produces it, since an articulation is performed by some party standing in some relation, and a performance from no position is what the framework denies.

The non-temporality is what makes the claim consistent with §4.2. An articulation may be simultaneous with what it articulates, may constitute its object as an object of that kind, and may enter the further becoming of that object, and the grounding claim is untouched by all three. Grounding is a relation of dependence and not a relation of succession [Fine (2012), Schaffer (2009)].

4.4 Positions the grounding claim excludes

The claim does not say that articulation is less real. Grounded facts are facts, and the literature the claim borrows from is explicit that grounding carries no deflation of what it grounds.

The claim does not say that articulation is inert. That an articulation is grounded in a relational configuration is consistent with its entering the next configuration and altering it, and the companion papers depend on its doing so.

The claim does not settle what grounds what within relational becoming. It states the direction of dependence between becoming and articulation, and it supplies no ordering among relations.

5 The Position between Separation and Identity

This section states the relation between a being and the knowledge of that being. Its objective is to establish that two errors are available and that both are fatal, and its method is to state each error with the consequence that defeats it, then to fix the formula that avoids both and to argue for that formula against a weaker one. The section closes with what the formula licenses.

5.1 The error of separation

To hold that knowledge is separate from being is to hold that an articulation stands outside what it articulates. Two consequences defeat this.

It requires an exterior position. A knowledge separate from being is produced from somewhere, and on the framework's commitments the somewhere is within the relational world. A separate knowledge would therefore have to be produced within the world and stand outside it at once.

It renders the causal efficacy of description unintelligible. Descriptions alter what they describe, which the companion papers establish and which is not in dispute. A separate knowledge could not do this without acting on a domain it does not belong to.

5.2 The error of identity

To hold that knowledge is identical with being is the opposite error and it is equally fatal, and this is worth stating at length because the framework's own commitments make it the more tempting of the two.

It removes misrepresentation. A representation that is what it represents cannot fail to correspond to it, so no description could be wrong, and the ordinary business of correcting a record would be unintelligible.

It removes contestation. The companion paper on representational transformation defines its condition in terms of a person's capacity to reach and dispute the description made of him. Where the description is the person, there is nothing to dispute and no gap across which a dispute could be conducted.

It removes revision. A description that is its object changes only as its object changes, and the historical record of assessment criteria changing while their objects did not is then unaccountable.

The three consequences are one consequence in three registers. The framework's entire account of representation requires a gap, and identity closes it.

5.3 The formula that avoids both

Claim 5.1. (Neither one nor different). *A being and the knowledge of that being are neither identical nor separate. They are not identical, since an articulation is partial, revisable, and capable of misrepresenting its object. They are not separate, since the articulation is produced within the same relational becoming that constitutes the being, and enters that becoming thereafter.*

The formula is stated in the traditional form of neither-one-nor-different in preference to the more familiar formula of non-duality, and the preference is argued and not stylistic. Non-duality states one half. It denies separation and is silent about identity, and a substantial body of readers takes it to assert identity, which is the error of §5.2. The formula used here asserts both halves and therefore cannot be read as either error.

A weaker reading of the formula must also be excluded. It does not say merely that being and knowledge arise by similar mechanisms, or that both are relational in character. That reading leaves two things which happen to resemble one another, and the claim is stronger: the distinction between what is and what is known of it is itself drawn within relational becoming, so the two are distinguishable moments of one process and no two processes with a common form.

5.4 Consequences the formula licenses

The formula licenses the treatment of an articulation as a real event with real effects, since it is not separate from the becoming it articulates.

It licenses the treatment of an articulation as defeasible, since it is not identical with what it articulates.

And it licenses the distinction on which §9 turns, between an articulation and the closure of a being under that articulation. Only a position holding both halves can draw that distinction, since separation makes closure impossible to state and identity makes it universal.

6 The Non-Exhaustion of a Being by Its Articulation

This section states the result the framework needs against the difficulty of §1. Its objective is to establish that no articulation exhausts what it articulates, and to establish it without positing anything hidden, and its method is to derive the result from the openness of relational becoming alone. The section closes by distinguishing the result from a superficially similar one.

6.1 The result and its derivation

Claim 6.1. **(Non-exhaustion).** *For any articulation of a being at a time, the being admits relational configurations under which further articulation of it would differ from the given one. No articulation therefore exhausts what it articulates, and this holds however powerful the articulating apparatus.*

The derivation requires two premises and both belong to the framework. A being is constituted in relation, so what a being is is settled in part by the relations it stands in. And the relations a being stands in are not closed, since new relations are formed and the framework's whole account of generativity concerns their formation.

From these it follows immediately that an articulation at a time is an articulation of a being under the relations then obtaining. A further relation yields a further articulation, and the further articulation may differ. The being is therefore not exhausted by the given articulation, and nothing in the argument turns on the power of the apparatus, since the limitation lies in the openness of the relations and never in the resolution of the instrument.

6.2 The claim distinguished from the positing of an essence

The result is easily misread as the claim that something lies behind the articulation which the articulation fails to reach, and the framework asserts no such thing.

What exceeds an articulation is not a hidden property of the being. It is a set of relations not yet formed, and the being's participation in those relations is not a fact about the being now that the articulation missed. Before the relation is formed there is nothing there to

be missed, which is why the result is compatible with an articulation that is complete in respect of everything obtaining at the time it is made.

The difference is testable in the ordinary way. On an essence view, a better instrument would eventually reach what the articulation misses. On the present view no instrument reaches it, since what is at issue does not yet obtain, and the improvement of instruments is beside the point.

6.3 The answer to the difficulty that occasioned this paper

The difficulty stated at §1 was that a sufficiently powerful formalism appears able to exhaust what it articulates, which the framework's own commitments seemed to permit. Claim 6.1 answers it directly and from those same commitments. The framework's commitment to relational constitution, taken together with its commitment to the openness of relational formation, entails that no articulation exhausts its object. The appearance of a contradiction arose from treating relational becoming as a completed object of which a sufficiently good description could be given, and the framework holds no such object.

The formulation that an understanding of being precedes its logical articulation therefore survives, and it survives with a determinate reading. The precedence is grounding and not succession, by §4; and what is prior is not a mute apprehension resisting logic but the relational becoming in virtue of which any articulation, logical or otherwise, is made. Part III

The Partiality of Knowledge

7 Decomposition and the Partiality of Every Characterisation

This section establishes that the partiality of knowledge is produced by the operation that makes a subsystem available for characterisation at all. Its objective is to show that partiality is constitutive in place of accidental, and its method is to state the decomposition an assessment requires, to identify what the decomposition does, and to give a formal case in which the point is exact. The section closes with the restrictions on the formal case.

7.1 The decomposition an assessment requires

To characterise a party is to treat that party as a subsystem. A characterisation says how things stand with this party, which presupposes a division of the world into the party and everything else, and the division is performed by whoever characterises. Nothing in the world announces where a party ends.

The division is an operation and it has a result. What is obtained is a description of the party *under that division*, and a different division yields a different description of what is nominally the same party. A worker described as an occupant of a role, as a member of a household, and as a participant in a friendship is described three times, and the three

descriptions are not portions of one larger description that a more diligent observer would assemble.

7.2 The effect of the decomposition on relational holdings

Where a property of a party is constituted in a relation between that party and another, the division separates the relata, and the description obtained is a description of one side of a relation whose other side has been placed outside the boundary. The companion paper on the legibility of contribution states the consequence for evaluation: what a distant observer receives is a marginal of a joint characterisation and never an incomplete report of something the party possesses.

This is where the partiality becomes constitutive. An incomplete report may be completed by further effort. A marginal cannot be completed by effort directed at the party alone, because what is missing is not held by the party. It is held by the relation, which the division placed outside.

7.3 The formal case in which the point is exact

There is a setting in which this is exact in place of analogical, and it is worth stating because it shows that the structure is coherent and not merely evocative.

Take a composite of two subsystems in a determinate joint condition. To characterise the first subsystem alone, one performs an operation that marginalises the second. Where the composite is in a correlated condition of the appropriate kind, the result carries strictly less determination than the composite: the joint condition may be maximally determinate while the condition assigned to the first subsystem alone is maximally indeterminate. Complete knowledge of the whole is therefore compatible with no knowledge whatever of the part, and the deficit is not repaired by any further examination of the part.

This is the sharpest available statement of the point at issue. The partiality is not a shortfall of the examination. It is produced by the decomposition without which no characterisation of a part could be made.

7.4 Restrictions placed on the formal case

Three restrictions apply and they are the disciplines fixed at §2.

No physical claim is made. Nothing here asserts that social, cognitive or institutional systems exhibit the phenomenon described, or that any physical law applies to them. What the case establishes is that a structure in which the whole is determinate and the parts are not is coherent, which removes the objection that the framework's talk of relational holdings is confused.

The classical version is weaker and is what the argument uses generally. Where a joint characterisation does not factorise, a description of one relatum is a marginal, and the information carried by the correlation appears in no marginal. This is available without any appeal beyond ordinary probability, and §7.2 requires nothing more.

The case supplies no measure. Nothing here quantifies how much is lost in any actual decomposition, and the companion papers' declinations of any such quantity hold here too.

8 The Limits of Self-Representation

This section establishes the paper's third result. Its objective is to show that a system producing its own means of representation cannot represent itself completely, and to establish it from within the framework, and its method is to give the internal argument first and then to state what the limitative results in logic do and do not add. The section closes with the reading the result licenses.

8.1 The internal argument

Claim 8.1. (Unavailability of complete self-representation). *Let a relational system produce, among its other products, the representations made of it. No such representation is complete with respect to the system, where completeness requires that every item belonging to the system be articulated in it.*

The argument has three steps and each uses a commitment already established.

A representation produced within the system belongs to the system. This follows from Claim 4.1 together with the stipulation of the claim: the representation is grounded in a relational configuration, and that configuration and its product belong to the system.

A complete representation therefore articulates itself. Completeness requires the articulation of every item belonging to the system, and by the previous step the representation is such an item.

A representation cannot articulate itself completely, and this is where Claim 5.1 does the work. By that claim an articulation is never identical with what it articulates. The articulation of the representation within the representation is therefore a distinct item, belonging to the system by the first step, and completeness requires that it too be articulated. Each application produces a further distinct item requiring articulation, and the series terminates at no point. So no representation satisfies the completeness condition.

The argument uses no limitative theorem and no claim about formal languages. It uses the non-identity of an articulation with its object, established at Claim 5.1, and the closure of the system under its own products, and a reader who grants those two grants the result.

One escape must be closed. The regress would terminate if some articulation of the representation were identical with the representation, since the series would then repeat in place of extending. That is precisely the identity Claim 5.1 forbids, and a reader who allows it inherits the three consequences recorded at §5.2: nothing could misrepresent, nothing could be contested, and nothing could be revised.

8.2 The contribution of the limitative results in logic

Where the representing system is a formal language of sufficient strength, the difficulty takes a precise and proved form. Tarski's result establishes that such a language cannot contain a predicate expressing truth for its own sentences [Tarski (1936)], and Gödel's results establish limits on what such a system can prove about itself [Gödel (1931)].

Three things must be said about the relation between those results and Claim 8.1.

They are not the ground of the claim. Claim 8.1 is established at §8.1 by an argument that mentions no formal language, and it stands whether or not the theorems are thought to transfer.

They do not transfer as theorems. The articulations at issue in this paper are perceptual, institutional, narrative and legal as well as formal, and the theorems govern formal languages meeting stated conditions. Applying them to the general case would be an equivocation and §2 forbids it.

What they supply is a demonstration that the difficulty is real where it can be made exact. A reader who suspects that Claim 8.1 trades on vagueness may observe that in the one setting where every term is precise, the corresponding claim is a theorem. That is evidence about the shape of the difficulty and no proof of the general claim.

8.3 The result distinguished from scepticism

The result is not a claim that representation fails, that knowledge is unreliable, or that a system cannot know itself substantially.

A system may represent itself extensively, accurately and usefully, and the framework holds that it does. What is unavailable is completeness with respect to itself, and the unavailability concerns one property of a representation among many.

The result also carries no recommendation of modesty as a mood. What follows from it is stated at §9 and is a determinate structural point about the standing of a representation, not a counsel of humility.

8.4 The reading the result licenses

The result licenses the claim that a system's account of itself is always an account produced within it, and therefore always an account whose production is not fully within its own account.

It licenses the framework's refusal of an exterior position, at the level of representation in place of the level of observation. The companion papers deny that a party may assess a relational system from outside it; this result denies that the system may represent itself from outside itself, and the second denial is the stronger of the two.

And it licenses the treatment of any representation as provisional in a specific and defensible sense: provisional not because a better one may come, though one may, but because completeness with respect to the system is not the kind of thing a representation produced within the system can have. PART IV

CONSEQUENCES FOR THE COMPANION PAPERS

9 ONTOLOGICAL CLOSURE AND THE DEFECT IN A REPRESENTATION

This section draws the first of the two consequences. Its objective is to establish that the defect in a representation is closure and never loss, and to show that this is the ontological statement of a condition already defended in the companion paper on representational transformation. Its method is to define closure, to distinguish it from loss, and to exhibit the correspondence. The section closes with what the correspondence does not establish.

9.1 The definition of closure

An articulation is *closed* with respect to a being when the articulation is treated as the being it articulates, so that no further relational configuration is admitted as bearing on what that being is. Closure is therefore not a property of the articulation taken by itself. It is a property of the standing accorded to the articulation within the relational system that produced it.

Two features of the definition are load-bearing. Closure concerns admission and not accuracy, so an articulation may be closed and correct in every particular obtaining at the time it was made. And closure is a relation between an articulation and a system's practice, so the same articulation may be closed in one setting and open in another with nothing in its content differing.

9.2 Closure distinguished from loss

An articulation loses when distinctions present in what it articulates are absent from it. Loss is unavoidable, by §7, and it is the condition of intelligibility in the ordinary case, since an articulation retaining every distinction would be the situation itself.

Closure is a different property and the two vary independently. An articulation that discards almost everything may be held open, revised on the next occasion and treated as one description among others. An articulation that discards nothing may be closed, treated as settling what the being is and admitting no further configuration as relevant. The companion paper on transformation establishes the same independence for its own pair of properties and supplies the counterexamples; the present section supplies the reason for the independence, which is that loss is a property of the articulation and closure is a property of its standing.

9.3 The correspondence with the admissibility condition

The companion paper on transformation holds that a transformation is inadmissible when the distinction it destroys cannot be restored at the instance of the person it concerns. Set beside the definition above, the correspondence is exact and it runs in one direction.

The distinction whose restoration is required is, at the level of this paper, the distinction between the being and the articulation made of it. Where that distinction cannot be restored at the instance of the person concerned, the articulation has been accorded the standing of the being, since nothing the person can do brings any further configuration to bear on what he is taken to be. That is closure.

The route of restoration is therefore not an administrative amenity attached to a representational practice. It is the mechanism by which an articulation is held open, and holding open is what §6 shows to be required of any articulation whatever, since no articulation exhausts its object.

9.4 The revision this forces on Heidegger's injunction

The injunction to let a being be as a being in place of as knowledge and thence as means can now be restated in a form this framework can hold.

The framework cannot accept the injunction as it stands, since knowledge is here one mode of a being's relational articulation and no imposition upon it from outside, and an injunction against rendering a being as knowledge would be an injunction against a mode of its own becoming. What the framework can hold is an injunction against closure: an articulation may be made, and must be, and what may not be done is to accord it the standing of the being it articulates.

The second step of the original injunction is thereby explained in place of merely being repeated. A being rendered as knowledge is not yet available as a means, since an articulation held open supports no settled disposition of its object. It is the closure of the articulation that makes the object available for use, since only a being taken to be settled can be treated as a standing supply. The two-step reduction therefore has a joint at the point this framework identifies, and the danger the injunction names arises at the joint.

9.5 Positions the correspondence does not establish

The correspondence does not show that the companion paper's condition is correct. It shows what that condition amounts to at this level, and a reader who rejects the condition on the grounds given there is not answered here.

The correspondence supplies no procedure. What arrangements hold an articulation open is a question about arrangements, and both papers decline to specify machinery for the reasons the companion paper gives.

The correspondence does not make closure a moral category. Closure is a structural property of the standing of an articulation, and whether a given instance wrongs anyone requires the further argument the companion paper supplies and this paper does not.

10 The Absence of a Locus for a Generative Event

This section draws the second consequence. Its objective is to establish that a generative event admits no locus among its participants, and to state what follows for the treatment of invisible contribution. Its method is to state the result, derive it, and then distinguish it carefully from three claims it resembles. The section closes with the consequence for the companion paper on legibility.

10.1 The result

Claim 10.1. (No locus for a generative event). *Where a possibility is generated in a relation among parties, there is no fact of the matter about which party generated it. The generative event is a property of the relational configuration, and the question of how much of it each participant produced has no answer, since it presupposes a decomposition of the configuration that the configuration does not support.*

The derivation is short and uses results already established. By the framework's founding commitment a generated possibility is constituted in a relation. By §7, a decomposition of a relational configuration into contributions of its relata is an operation performed by whoever performs it, and where the configuration does not factorise the resulting parts do not carry what the configuration carries. A share of a generative event is therefore a quantity defined only relative to a decomposition, and the decomposition is supplied by the party asking and answers to nothing in the configuration.

10.2 The result distinguished from three claims it resembles

It is not the claim that participants are interchangeable. Two configurations differing in their participants are different configurations and may generate differently, and the result is consistent with a participant being indispensable to what was generated.

It is not the claim that causal statements about relations are false. That a relation with a given participant generated something, and that a relation without that participant would not have, are statements about configurations and may be true. What has no truth value is the apportionment of the generated possibility among the participants.

It is not the claim that nothing can be recorded. Participation is a fact about a party and is recordable in the ordinary way. What is not recordable is a share, since there is no share to record.

10.3 The consequence for the treatment of invisible contribution

The companion paper on the legibility of contribution establishes that generative holdings are systematically absent from the evidence available to distant evaluators, and it proposes that devices leaving durable traces improve the composition of that evidence. Claim 10.1 constrains what such a device may record and the constraint is not incidental.

A device recording that a party generated a determinate portion of an outcome would record something for which no fact of the matter exists. A device recording that a party participated in a determinate relation, and performed a determinate act within it, records something that obtains. The companion paper is restricted accordingly, and the restriction is now derived in place of being stipulated there.

A further consequence follows for the shape of any remedy. Programmes that would answer the invisibility of ordinary contribution by improving the attribution of credit are attempting the apportionment this section denies. What is available is the recording of participation and the maintenance of circulation among participants, which is the structure the companion papers borrow from generative justice, and that structure requires identification of the participants and no apportionment among them.

10.4 The symmetry with the treatment of responsibility

The result has a counterpart on the negative side which is worth stating, since the two together suggest that the phenomenon is general.

Where an outcome is produced through the acts of many parties within a relational structure, the question of how much of it each produced meets the same difficulty, and the analysis of distributed responsibility in this framework records it. There an outcome is produced and no participant is the locus of its production. Here a possibility is generated and no participant is the locus of its generation.

The two are one result about relational events under two signs. Neither is repaired by finer measurement, since the difficulty lies in the decomposition and not in the resolution of the instrument, which is the same conclusion §6 reached about articulation generally.

Part V

The Boundaries of the Account

11 Positions Declined and the Grounds for Declining Them

This section argues the four declinations announced at §2. Its objective is to show that each rests on a result established in the body of the paper or on a stated feature of its position, and its method is to give for each what the account would have to establish in order to assert the contrary. The section closes with the declination that readers of this framework are most likely to press.

11.1 Grounds for declining an essence

To assert that something lies behind an articulation which the articulation fails to reach, the account would need a bearer for that something at the time the articulation is made. §6 shows that no such bearer is required and that none is available. What exceeds an ar-

ticulation is a set of relations not yet formed, and a relation not yet formed has no bearer now.

The declination is consequential. It removes the standard objection to any doctrine of non-exhaustion, which is that the doctrine posits an unknowable remainder and thereby makes itself untestable. On the present account the remainder is not unknowable; it does not yet obtain, and the difference is stated at §6.2 in a form that distinguishes the two positions empirically.

11.2 Grounds for declining a mysticism about logic

The account treats logic, mathematics and formal representation as real, powerful and productive, and every negative result in this paper concerns what they presuppose in place of what they lack.

Two features of the argument enforce this. Claim 8.1 concerns completeness with respect to a system and no other property of a representation, so a representation may be extensive, accurate and useful and the claim is untouched. And §8.2 declines to derive the general result from the limitative theorems, which prevents the argument from taking the form of a general lesson drawn from logic's supposed failures.

11.3 Grounds for declining a criterion of justice

Nothing normative follows from this paper directly. The consequences at Part IV are consequences for the structure of conditions stated elsewhere: they establish what those conditions amount to at this level and what constrains their formulation, and they establish nothing about whether any arrangement is just.

The division of labour is deliberate and is the reason this paper was written after the companion papers. A normative claim entering here would arrive without the case material and the objections that make a normative claim assessable, and it would arrive in a paper whose premises are the framework's founding commitments in place of anything a reader outside the framework has granted.

11.4 Grounds for declining a priority of the practical over the theoretical

That articulation is grounded in relational becoming is a claim about dependence. It carries no claim that practice is more valuable than theory, that action precedes reflection in any order of worth, or that theoretical work is derivative in any sense beyond the one Claim 4.1 states.

This is the declination most likely to be pressed, since the grounding vocabulary invites the reading. §4.4 records that grounding carries no deflation of what it grounds and that the literature the claim borrows from is explicit on the point. A grounded fact is a fact, and an articulation grounded in a relational configuration is not thereby a lesser thing than the configuration.

12 Limits of the Account and Directions for Further Work

This section states what remains unsettled. Its objective is to place the account's weaknesses on the record in a form a critic can use, and its method is to separate the limits of its standing from the limits of its arguments and the limits it shares with its companions. The section closes with the directions left open.

12.1 The limit on the account's standing

The paper argues within a framework and does not defend the framework. Its two founding commitments, that beings are constituted in relation and that knowledge emerges from relational dynamics, are premises here and are argued elsewhere. Every result in this paper is therefore conditional, and a reader who rejects either commitment is not answered by anything written here.

This is a substantial limitation and it should be read as one. The results are of the form "given these commitments, this follows", and their interest depends on whether the commitments are worth holding, which is a question this paper does not address.

12.2 The exposure created by the borrowings

Three traditions are drawn on and each is drawn on partially.

The Heidegger material is used for a structure and revised in the course of use, and a specialist will observe that the revision abandons what is distinctive in the original position. §2.2 concedes this in advance and the argument does not depend on the reading being faithful.

The Buddhist material is used for a formula whose traditional employment differs from the one made of it here, and the departure is stated at §2.3. A reader for whom the formula is inseparable from its traditional purposes will hold the borrowing improper, and the argument of §5 can be restated without the formula at the cost of some economy.

The formal and physical material is the most exposed. §7.3 and §8.2 state what is and is not claimed, and both sections were written so that the surrounding argument survives their removal. Whether that containment is successful is for a reader to judge, and it is the first thing a hostile reader should test.

12.3 Limits internal to the arguments

Claim 4.1 states a direction of dependence and no more. It does not say what within relational becoming grounds what, it supplies no account of how a particular articulation arises from a particular configuration, and a framework wanting either must obtain it elsewhere.

Claim 8.1 concerns completeness and supplies no measure of incompleteness. Nothing here indicates how far a given self-representation falls short, whether some fall shorter than

others, or whether the shortfall can be reduced, and the companion papers' declinations of any such quantity apply here with the same force.

Claim 10.1 denies a locus and supplies no replacement notion of contribution. It states that apportionment among participants has no answer and it does not state what, if anything, takes the place of apportionment in an account that needs to say something about who did what. The companion paper's restriction to records of participation is a partial answer and it is not a complete one.

12.4 The limit this account shares with its companions

The observer problem is unresolved here as it is in the other three papers, and this paper makes it sharper in one respect. Claim 8.1 establishes that a system's self-representation is never complete with respect to the system. It follows that no party within a system is positioned to establish, of that system, that its representations are held open in the sense §9 requires, since establishing that would itself require a representation whose completeness the claim denies.

This is not a defect peculiar to the framework. Any account denying an exterior position inherits it. But it means that the conditions the companion papers state, and the property this paper identifies as their ground, are conditions no party is fully positioned to verify, and the series records this in common and answers it nowhere.

12.5 Directions the account leaves open

Three directions follow.

The first is the account of how particular articulations arise from particular configurations, which Claim 4.1 leaves open and which any application of the framework will need.

The second is the replacement for apportionment identified at §12.3. An account that denies shares and stops there has left the practical question standing, and the practical question is asked constantly.

The third is the observer problem of §12.4, which the four papers of this series record in common. It is the question on which the applicability of the whole body of work depends, and none of the four supplies an answer.

References

[Barad (2007)] Barad, Karen. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC: Duke University Press, 2007.

[Cassirer (1923)] Cassirer, Ernst. *Substance and Function, and Einstein's Theory of Relativity*. Translated by William Curtis Swabey and Marie Collins Swabey. Chicago: Open Court, 1923.

[Fine (2012)] Fine, Kit. "Guide to Ground." In Fabrice Correia and Benjamin Schnieder (eds), *Metaphysical Grounding: Understanding the Structure of Reality*. Cambridge: Cambridge University Press, 2012, 37–80.

[Gödel (1931)] Gödel, Kurt. "Über formal unentscheidbare Sätze der Principia Mathematica und verwandter Systeme I." *Monatshefte für Mathematik und Physik* 38, 1931, 173–198.

[Gadamer (2004)] Gadamer, Hans-Georg. *Truth and Method*, 2nd revised edn. Translated by Joel Weinsheimer and Donald G. Marshall. London: Continuum, 2004.

[Hegel (1977)] Hegel, G. W. F. *Phenomenology of Spirit*. Translated by A. V. Miller. Oxford: Oxford University Press, 1977.

[Heidegger (1977)] Heidegger, Martin. *The Question Concerning Technology and Other Essays*. Translated by William Lovitt. New York: Harper & Row, 1977.

[Ladyman & Ross (2007)] Ladyman, James, and Don Ross, with David Spurrett and John Collier. *Every Thing Must Go: Metaphysics Naturalized*. Oxford: Oxford University Press, 2007.

[Luhmann (1995)] Luhmann, Niklas. *Social Systems*. Translated by John Bednarz Jr. with Dirk Baecker. Stanford: Stanford University Press, 1995.

[Maturana & Varela (1980)] Maturana, Humberto R., and Francisco J. Varela. *Autopoiesis and Cognition: The Realization of the Living*. Dordrecht: D. Reidel, 1980.

[Nāgārjuna (1995)] Nāgārjuna. *The Fundamental Wisdom of the Middle Way: Nāgārjuna's Mūlamadhyamakakārikā*. Translated by Jay L. Garfield. New York: Oxford University Press, 1995.

[Schaffer (2009)] Schaffer, Jonathan. "On What Grounds What." In David Chalmers, David Manley and Ryan Wasserman (eds), *Metametaphysics: New Essays on the Foundations of Ontology*. Oxford: Oxford University Press, 2009, 347–383.

[Tarski (1936)] Tarski, Alfred. "Der Wahrheitsbegriff in den formalisierten Sprachen." *Studia Philosophica* 1, 1936, 261–405.

[Varela, Thompson & Rosch (1991)] Varela, Francisco J., Evan Thompson, and Eleanor Rosch. *The Embodied Mind: Cognitive Science and Human Experience*. Cambridge, MA: MIT Press, 1991.

[Whitehead (1978)] Whitehead, Alfred North. *Process and Reality: An Essay in Cosmology*, corrected edn, edited by David Ray Griffin and Donald W. Sherburne. New York: Free Press, 1978.