

Rethinking “Rethinking”: A Mechanism of Truth Emergence through Historical Evolution

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Abstract

Calls to rethink an established concept, theory or institution ordinarily proceed by criticising an inherited framework and offering a successor. The successor then occupies the position the predecessor vacated, and the historicity that grounded the criticism is quietly withheld from the criticising position. This paper treats that pattern as a structural feature of critique and offers an account of what makes rethinking recur.

The account has three parts. The conditions under which a relation can be observed, articulated, tested and contested are materially and institutionally produced, and they vary with instruments, infrastructures, forms of labour and the organisation of inquiry; the relation itself obtains independently of those conditions, so a failure of recognition is a fact about the situation of describers. The enlargement of what can be recognised carries no guarantee of direction, since recognition can be lost, suppressed, distorted and absorbed into institutional form. From these two together it follows that revisability belongs to the structure of any historically grounded claim, and that a course which irreversibly forecloses the conditions of future recognition carries a burden of justification that a revisable course does not carry.

The paper concedes its principal ancestors directly. That historical conditions introduce new candidates for truth and falsehood is owed to Hacking; that a lived relation can go unrecognised for want of collective interpretive resources is owed to Fricker; the distinction between the changing knowledge of an object and the object known is owed to Bhaskar. What the paper adds is a materialist account of the conditions of recognition, an insistence that the relation remains independent of them, and the forward-looking obligation that follows. On the question whether the historicity of the standards of appraisal collapses into relativism the paper declines to adjudicate, and states the material conditions under which each of the available resolutions became formulable, on the ground that a framework asserting the historicity of answers owes the same treatment to answers it would like to give itself.

Keywords. historical epistemology; historical materialism; conditions of recognition; revisability; irreversible foreclosure.

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Statement on the use of language models. Drafting, literature search and argumentative criticism for this paper were conducted in dialogue with large language models, specifically Claude (Anthropic) and ChatGPT (OpenAI). The claims, the structure, the selection of material and the position taken are the author’s. References cited have been checked; any that remain unverified are marked in the text.

Unverified references. Six entries in the bibliography give the original imprint of a work published before 1900, taken from standard reference works and not confirmed against a catalogue record: Kant (1790), Hegel (1812), Nietzsche (1887), Dilthey (1883), Husserl (1913) and Lenin (1909). Each is marked in the bibliography. The argument of §§3–4 uses the date of each work and never its imprint, so no claim in this paper depends on these details.

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Discussion Paper Note

This paper is a preliminary discussion paper intended to share an evolving idea and invite further dialogue, criticism, revision, and independent development.

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1 Introduction

Scholarship in philosophy, social science, law, economics, governance and the study of technology is at present full of calls to rethink. Concepts are to be rethought, institutions are to be rethought, disciplines are to be rethought. The form such calls take is stable enough to be written down. An inherited framework T_0 is exhibited as inadequate; the inadequacy is traced to the conditions under which T_0 was formed; a successor T_1 is offered which the inadequacy does not touch. The movement is presented as a release from dogmatism, and in the ordinary case it is one. What the movement seldom examines is the position T_1 comes to occupy. Having established that T_0 was shaped by conditions its authors could not survey, T_1 ordinarily proceeds as though its own conditions were transparent to it, or as though it had none. A critique addressed to rigidity thereby acquires a rigidity of its own, a critique that historicises its predecessor presents itself as historically final, and a framework built to expose contingency conceals the contingency of its own formation. Rethinking of this kind does not overcome dogmatism. It relocates dogmatism, and the relocation is difficult to see precisely because the vehicle is criticism.

The question this paper takes up follows from that observation. How can rethinking produce new understanding without converting the new understanding into a further ahistorical finality? The question is not rhetorical and admits a bad answer, namely that no understanding is better than any other and the sequence of frameworks records taste and power alone. A paper that arrived at that answer would have dissolved its own subject. The question is asked here in the expectation that the sequence of frameworks records something, that the something is worth naming truth, and that naming it requires an account of why the sequence has to continue.

The paper proceeds from a materialist premise about knowing. The conditions under which a relation can be observed, stated, tested and disputed are produced. They consist of instruments, laboratories, archives and networks; of institutions that train, employ and license inquirers; of infrastructures of measurement, transport and communication; of the division and organisation of labour that determines who has time to inquire and into what; and of the symbolic and conceptual apparatus that has been assembled and transmitted. These are historical products, they are unevenly distributed, and they change. What can be recognised at a given historical moment therefore changes with them. This is the paper's first commitment, and it is offered as a commitment about conditions of recognition and about nothing further.

The second commitment marks the paper off from a family of positions the first commitment would otherwise deliver it to. A relation may obtain while no party is positioned to recognise it. Recognition depends on conditions; obtaining does not. When a relation goes unrecognised, what has been established concerns the historical situation of describers, and the relation is untouched by their situation. The distinction is Bhaskar's [Bhaskar, 1975], between the changing knowledge of an object and the object of that knowledge, and the paper adopts it because without it the first commitment slides in one step into the doctrine that the world is made by description. That slide is the standard objection to every historicising epistemology, and the paper answers it with a commitment carried through the argument, in place

of a disclaimer attached to it.

The third commitment concerns direction. Historical development enlarges what can be recognised on many occasions, and on many occasions it does the reverse. Recognition is lost when the practices that supported it are dismantled; it is suppressed where suppression serves an interest; it is distorted in transmission; and it is absorbed into institutional forms that preserve the name of an insight while discarding the conditions that made the insight assessable. Ignorance in this sense has structure and is produced [Proctor and Schiebinger, 2008]. No monotone ordering of historical states of knowledge follows from the materialist premise, and the paper declines the developmental thesis that would supply one.

From the three commitments together the paper derives a consequence about present conduct. If the conditions under which relations become recognisable are historically produced and variable, then some of what obtains now will become recognisable only under conditions that do not yet exist. A course of action that irreversibly destroys the conditions under which that later recognition could occur destroys something whose value cannot be assessed at the moment of destruction, and destroys with it the occasion on which the assessment could have been made. A course that leaves those conditions in place preserves the occasion. The asymmetry between the two is the ground on which the paper allocates a burden of justification to the party adopting the foreclosing course. The allocation is a burden and no prohibition; it is discharged by argument, and it settles no question about which claim ought to prevail.

The paper's ancestors are numerous and are conceded at the point where each becomes relevant, with three named at the outset because they bear on the paper's central claims. That a historically situated style of reasoning introduces new candidates for truth and falsehood is Hacking's [Hacking, 1992], and the paper claims no priority over it. That a person may live a relation for which the collective interpretive resources supply no name, and suffer a distinctive wrong thereby, is Fricker's [Fricker, 2007], and it is the sharpest existing statement of the case this paper generalises. The transitive and intransitive dimensions are Bhaskar's, as noted. What the paper offers over these is a materialist specification of the conditions of recognition in place of a taxonomy of styles or an inventory of interpretive resources, an explicit commitment to the independence of the relation from the conditions of its recognition, and the forward-looking obligation, which none of the three derives. On the last of these the paper's claim is bounded by what a survey can establish: no work known to the author assembles this derivation, and the claim is offered in that form.

A paper of this kind owes an account of its own position. If the standards by which frameworks are appraised are themselves historically produced, the judgement that one framework is better supported than another is made by criteria that stand inside history, and the relativism the paper declines returns one level above the point where it was declined. Three resolutions of this difficulty are available in the literature and are examined in §10.2. The paper adjudicates among none of them. It states the material conditions under which each became formulable and the limitations each carries, on the ground that a framework asserting the historicity of answers owes that treatment to the answers it would like to give itself, and on the further ground that adjudicating here would perform precisely the movement described in the first paragraph. The refusal is a commitment of the paper and carries a cost, recorded

in §16.

What the paper supplies, then, is an account of how the conditions of recognition change, and the consequences of that account for the practice of criticism and for the institutions that carry criticism forward. What it does not supply should be stated at the same time. It offers no theory of the property truth and takes no position in the dispute between correspondence, coherence and deflationary accounts of that property; the level at which it works is the level of the production and assessment of candidates, and §3.4 argues that the two levels are compatible. It offers no criterion of demarcation, no theory of justification, and no procedure by which a party may determine whether a given structure remains sufficiently revisable. It offers no ranking over the claims that compete when the burden of §11 has been discharged. Declaring these at the outset converts a set of gaps into a statement of scope.

The paper is organised in five parts. Part I states the problem and fixes scope. Part II surveys the positions that own the ground the paper stands on, in three sections: the place of history in theories of truth, reflection in its reflexive and its materialist senses, and the positions that historicise the conditions of recognition directly. Part III develops the positive account, beginning with the dependence of recognition on historical conditions, proceeding through the material generation of epistemic objects and the enlargement and contraction of what is visible, and closing with the recursive form the movement takes. Part IV draws the consequences for the present: revisability as an internal requirement of any historically grounded claim, the preservation of the conditions of future recognition, and the difference between a revisable judgement and a revisable structure. Part V turns the account on the paper, declines four positions it might have been expected to take, states its limits, and closes.

The sentence that states the paper's thesis is used in the same form in §6 and §17, and is stated here first. History supplies repeated occasions of recognition produced under differing material conditions, and what we name truth is what holds across them.

2 Scope

2.1 The object of the argument

The paper's object is the situation of a party who proposes a revision to an inherited framework. Three features of that situation are treated. The party works with conceptual and material resources it did not assemble and cannot fully survey. The party's proposal will be assessed by criteria that are themselves historical products. And the party's proposal, if adopted, enters institutions that will carry it forward under conditions the party cannot anticipate. Everything the paper says concerns these three features and their consequences.

The object is therefore an epistemic and institutional situation, and no particular revision is at issue. The paper offers no verdict on any framework, supersession or dispute mentioned in the course of the argument. Historical episodes appear in the paper to exhibit a structure and are not adjudicated.

2.2 The historical materialism the paper commits to

Historical materialism is used here in a restricted sense, and the restriction is load-bearing. The paper commits to the conditioning thesis: the capacity to know is produced through material and social conditions, those conditions are historically variable, and what can be investigated at a given moment varies with them. It declines the developmental thesis: that the conditions improve, that they improve in a determinate sequence, or that the development of productive capacities carries a corresponding development of knowledge. The declination is forced by the paper's own third commitment, since a framework that admits the loss and suppression of recognition cannot also assert a monotone ordering of historical states of knowledge. Where the tradition supplies a directional guarantee, the paper does without it.

Two consequences follow and are stated here so that later sections may use them. Nothing in the paper licenses the inference from a later historical position to a better epistemic one. And the paper's obligation in §11 does not rest on any expectation that the future will know more; it rests on the weaker premise that the future's conditions of recognition will differ from the present's, which the conditioning thesis alone supplies.

2.3 The level at which truth is treated

The paper works at the level of the conditions under which candidates for truth and falsehood become available, assessable, contestable and revisable. It does not work at the level of the property predicated of a candidate once available. This division is what allows the argument to proceed without a theory of truth, and it is stated as a restriction and not as an evasion: a reader who holds a correspondence account, a coherence account or a deflationary account of the property may accept everything the paper argues, since none of the three speaks to the production of candidates. §3.4 discharges the objection that this division is unavailable.

The term *recognition* is used throughout for the composite capacity to observe, articulate, test and contest a relation. The composite is coarse and is used deliberately at that grain; §16 records the cost.

2.4 Restrictions

Four restrictions are carried through the paper.

Conditions of recognition, and no truth conditions. The paper's claims about historical variability apply to the conditions under which recognition becomes possible. No claim is made that the truth of any proposition varies with those conditions, and §6 argues that the two must be held apart.

Capacity, and no content. The paper concerns the capacity of a later inquiry to recognise and revise. It supplies no account of what any later inquiry will find, and no assertion in the paper depends on any expectation about the content of future knowledge.

Allocation, and no discharge. The obligation of §11 allocates a burden of justification. The paper says nothing about which arguments discharge that burden in any case, and it is compatible with a great many foreclosures being justified.

Structure, and no magnitude. The paper's argument concerns the structure of a decision and computes no quantity. It supplies no measure of how much recognition capacity a given course forecloses, and §15 declines a maximand over preserved capacity on grounds derived from that restriction.

2.5 Imports

Four positions are taken over and used as premises, each conceded where it is introduced. Bhaskar's distinction between the transitive and intransitive dimensions supplies the form in which the paper's first two commitments can be held together [Bhaskar, 1975], and §6.3 addresses the difficulty that Bhaskar himself raises for that distinction where the objects are social [Bhaskar, 1979]. Hacking's account of the historical introduction of candidates for truth and falsehood supplies the paper's central descriptive claim and is conceded in full [Hacking, 1992]. Fricker's account of hermeneutical injustice supplies the paradigm case of a relation obtaining while unrecognisable, and supplies with it the demonstration that the case is a real one [Fricker, 2007]. The literature on the production of ignorance supplies the evidence for the paper's third commitment [Proctor and Schiebinger, 2008, Tuana, 2006].

The materialist tradition's reflection theory is used differently, and the difference is stated in §4. The paper retains that tradition's thesis that knowing is materially conditioned and declines its image of knowledge as a copy of its object, on the ground that a copy account cannot state the paper's second commitment. Where no copy exists, a copy account has nothing to say about the relation, and the paper needs to say that the relation obtains.

2.6 Positions declined

Four positions are declined, argued in §15 and previewed here so that a reader knows early what the paper will refuse.

The paper declines a procedure for determining whether a structure remains sufficiently revisable. The declination follows from §10.2 and leaves a question of the paper's own posing unanswered.

The paper declines a demarcation between relations that emerge historically and relations that do not. Some relations may be recognisable under a very wide range of conditions, and the paper's argument requires nothing on the point.

The paper declines a maximand over preserved capacity for future recognition. A quantity defined over a field of many trajectories aggregates, and aggregation permits the substitution of one foreclosure for two enlargements, which the per-case form of the obligation withholds.

The paper declines a general requirement of reversibility. Historical openness understood as a bar on irreversible action would be unmeetable, and the obligation of §11 is stated as an allocation of argumentative burden for that reason.

3 The Place of History in Theories of Truth

The paper works at the level of the conditions under which candidates for truth and falsehood become available and assessable, and it declared in §2.3 that it takes no position on the property predicated of a candidate once available. That declaration owes a demonstration, since a reader may hold that the two levels cannot be separated, or that on some accounts of the property the paper's question does not arise at all. This section discharges the debt by surveying the principal accounts of truth in the order of how far each allows history to penetrate the truth-relation itself, and by asking of each whether it leaves the paper's level intact.

Each position is given with the material and institutional conditions under which it was formulated. The practice is unusual in a survey of this kind and it is required here by the paper's own commitment: a framework asserting that the conditions of knowing are produced owes the same account of the positions it surveys, including the positions it accepts.

3.1 Formulations that hold history outside the truth relation

Correspondence accounts locate truth in a relation between what is said and what is the case. Aristotle's formulation at *Metaphysics* Γ.7 fixes the shape: to say of what is that it is, and of what is not that it is not, is true. Russell [Russell, 1912] states the modern version in terms of correspondence with facts, and Tarski [Tarski, 1956] supplies the semantic conception, in which a truth predicate for an object language is defined in a metalanguage satisfying the equivalence schema. On all three, history touches the relation nowhere. Tarski's construction admits one relativity, of the truth predicate to a language, and the relativity is formal and carries no historical content.

The conditions of these formulations differ sharply across the two millennia they span. Aristotle's is produced in a teaching institution supported by the leisure of a slave-holding polis, and takes predication in speech as the exemplary bearer of truth. Russell's and Tarski's belong to the formation of mathematical logic as a research field with its own instruments: the notation of *Principia Mathematica* at Cambridge, the metamathematical programme and the Lwów-Warsaw school in interwar Poland. What made the semantic conception formula-ble was the prior availability of formalised languages as objects that could be studied from outside, which is an artefact of a particular disciplinary infrastructure.

For this paper the family is permissive. If truth consists in a relation between statement and world, then the question of when a party comes to be positioned to form the statement, test it and dispute it is a separate question, and it is the paper's question. Nothing in the family obstructs it.

3.2 Formulations that locate truth within a system of belief

Coherence accounts make truth a matter of a proposition's relations to others within a system. Bradley [Bradley, 1914] develops the strong form, in which truth is membership in an absolute and comprehensive system; Rescher [Rescher, 1973] develops a form that separates coherence as a criterion of truth from coherence as its definition, and defends the first.

Bradley's position is produced within British Absolute Idealism at Oxford in the late nineteenth century, in a philosophical faculty organised around the teaching of a systematic metaphysics and reacting against empiricism. Rescher's belongs to mid-twentieth-century American systematic philosophy in an expanded and specialised university.

The family bears on this paper at one point and is otherwise permissive. Where coherence is offered as a criterion, the criterion is applied by inquirers whose access to the system is partial and historically conditioned, which is the paper's level. Where coherence is offered as constitutive of truth, the family and the paper part company, since the paper holds in §6 that a relation obtains independently of the conditions under which it becomes assessable.

3.3 Formulations that tie truth to the course of inquiry

With pragmatism, history begins to enter. Peirce [Peirce, 1878] identifies truth with the opinion fated to be ultimately agreed by all who investigate, which locates truth at the limit of a temporally extended process. James [James, 1907] identifies it with what proves expedient in the way of belief. Dewey [Dewey, 1938] replaces the term with warranted assertibility, a status conferred by the successful conduct of inquiry.

The conditions are legible in the doctrines. Peirce worked for three decades as a practitioner in the United States Coast Survey, on pendulum and geodetic measurement, and §10.2.3 returns to the material conditions of his formulation, where they carry an argument. James wrote in a Harvard reorganising itself around a functional psychology. Dewey's instrumentalism belongs to Progressive-era Chicago and Columbia, and to the reconstruction of schooling as an experimental practice.

Peirce is this paper's most important ancestor in this section and the one it must refuse most explicitly. The limit of inquiry supplies an ordering over historical states of knowledge, and the ordering is what the paper's third commitment denies. §8 states the refusal with its grounds. Two further observations belong here. The convergence formulation relocates finality into the future, and the relocation preserves the structure the paper's first paragraph described, moving it from the present to the end of inquiry. And Dewey's replacement of truth by warranted assertibility collapses the very distinction between levels that §2.3 draws, which makes his position incompatible with the paper's in a way that Peirce's is not.

3.4 Formulations that dissolve the question

Deflationary accounts present the sharpest objection this section has to answer, and the objection is not that the paper is wrong. It is that the paper's question does not arise.

Ramsey [Ramsey, 1927] argues that asserting that it is true that p adds nothing to asserting that p . Quine [Quine, 1970] treats the truth predicate as a device of disquotation and semantic ascent, useful for generalising over sentences. Horwich [Horwich, 1998] develops minimalism: our understanding of truth is exhausted by the uncontroversial instances of the equivalence schema, and those instances are conceptually basic and explanatorily fundamental. On such accounts truth has no nature. It is not a substantial property whose analysis could reveal a structure, and it carries no hidden dependence on epistemic conditions. A

question about how history conditions the truth relation therefore has no object, since there is no relation over and above the equivalences.

The conditions of the deflationary family are the conditions of a discipline that had acquired formal instruments and a strong preference for ontological economy: post-war analytic philosophy in the American research university, extensionalist in method, with logic as its standard of rigour and a professional structure rewarding the elimination of surplus entities.

The paper's answer proceeds in three steps and does not contest the deflationary thesis.

First, the equivalence schema is silent on the paper's subject. That the sentence stating a relation is true if and only if the relation obtains says nothing about when any party comes to be positioned to form that sentence, to possess the concepts it employs, to marshal the practices by which it could be tested, or to raise it in a forum where it could be contested. Those are the conditions of recognition, and a deflationist may hold everything the paper argues about them while holding that truth itself has no nature.

Second, silence is compatibility. The paper needs no substantive property of truth for any of its claims. C1 concerns the historical production of the conditions of recognition; C3 concerns the direction of their change; C4 concerns the burden attaching to their foreclosure. None quantifies over a property of truth, and none would be strengthened by an account of one.

Third, the paper's own topic is one the deflationist has independent reason to acknowledge. The generalisation problem and the challenge to the explanatory role of truth are live within the deflationary literature, and both concern what the truth predicate does in inquiry, which is a question about a practice conducted under conditions. The paper's level survives on the deflationist's own accounting.

Claim 3.1. *The distinction drawn in §2.3, between the conditions under which candidates for truth and falsehood become available and assessable and the property predicated of a candidate once available, is available on correspondence, coherence and deflationary accounts of the property alike. No argument of this paper is hostage to a theory of truth.*

Claim 3.1 is stated for the three families surveyed to this point. The next family is the one for which it fails, and the failure is instructive.

3.5 Formulations that build epistemic conditions into truth

Epistemic and anti-realist accounts of truth make warrant, or idealised warrant, partly constitutive of truth. This family stands closest to the paper and is the one from which the paper must be distinguished with the greatest care, since a reader who has followed §1 will suspect the paper of holding one of these positions without saying so.

Dummett [Dummett, 1978] argues from the requirement that understanding be manifestable in use: a grasp of verification-transcendent truth conditions could never be fully exhibited in any exercise of linguistic capacity, so meaning, and with it truth, must be given in terms of conditions of warranted assertion. Putnam [Putnam, 1981] identified truth with

idealised rational acceptability relative to a conceptual scheme, under the name of internal realism. Putnam subsequently retracted that position, returning to a form of commonsense realism in the Dewey Lectures of 1994 and in *The Threefold Cord* [Putnam, 1999]; citing internal realism as his settled view misstates the record. Wright [Wright, 1992] develops superassertibility: a statement is superassertible when it is assertible in some state of information and remains assertible under every enlargement or improvement of that state.

The conditions of the family are those of a philosophical formation in which intuitionistic mathematics supplied a working model of a discipline getting on without bivalence, in which the later Wittgenstein's account of meaning as use had become the ambient assumption of British philosophy, and in which the model-theoretic resources for arguments about reference had recently become available.

Wright's formulation is the sharpest foil this paper has, and the reason repays statement. Superassertibility quantifies over the epistemic future. It asks what survives every improvement of the state of information, which is formally parallel to this paper's interest in what holds across occasions of recognition produced under differing conditions. The two positions then diverge at the point that matters most. For Wright, stability under improvement is constitutive of the truth of the statement. For this paper, what holds across differently conditioned occasions of recognition is evidence about a relation that obtains independently of all of them. The paper historicises recognisability and leaves the relation alone; the epistemic family conditions the relation itself.

Two consequences follow for what the paper may say. Claim 3.1 fails for this family, since a position that makes idealised warrant constitutive of truth cannot separate the two levels the claim separates; the paper is therefore incompatible with the family and says so openly. And the paper cannot borrow the family's arguments for its own historicising, since those arguments purchase the historicity of truth at a price the paper declines to pay.

3.6 Formulations that treat truth in terms of disclosure

Heidegger [Heidegger, 1962] treats truth as unconcealment, a prior condition of the propositional correctness the correspondence accounts analyse, and holds that what can be disclosed varies with the historical sending of being. Gadamer [Gadamer, 1975] develops understanding as an event in which a historically effected consciousness meets a transmitted text, and rehabilitates the inherited prejudgement as the enabling condition of understanding.

Both are produced within the German university's philosophical faculty in the decades framing the two wars, a formation in which philology and the interpretation of transmitted texts were the paradigm scholarly labour, and in which the authority of the natural sciences was contested by a discipline defining itself against them.

The family is a genuine ancestor of the paper's first commitment and states it with a scope the paper does not claim. What it supplies is the thesis that the conditions of disclosure are historical; what it does not supply is any material specification of those conditions. The history in question is a history of being or of transmission, and the paper's is a history of instruments, institutions, infrastructures and labour. The difference is the paper's materialism, and it is a

difference of substance and not of emphasis: the two accounts pick out different things as the conditions that changed.

3.7 Formulations that ground truth in agreement

Habermas advanced a discourse theory of truth in the early 1970s, in which a statement is true when it would command the agreement of all participants under conditions of an ideal speech situation, and Apel [Apel, 1973] developed a transcendental pragmatics with the ideal communication community as its regulative reference. *Habermas abandoned the consensus theory of truth* in *Truth and Justification* [Habermas, 2003], moving to a weak naturalism and a form of epistemological realism in which the connection between truth and justification is epistemically and not conceptually necessary. Attributing the consensus theory to him as a settled position misstates his development, and the misattribution is common enough to be worth the correction.

The conditions of the family are those of post-war German critical theory: a discipline reconstituting itself after catastrophe around the normative conditions of public communication, in a state committed to democratic legitimation, at a moment when the linguistic turn had made the conditions of speech a philosophical object.

Rorty [Rorty, 1979] declines the family's premise altogether, holding that inquiry has no privileged terminus and that calling a sentence true pays it a compliment and names no goal; the paper's divergence from him is Claim 6.1, which supplies the object that his account does without.

For this paper the family is instructive precisely in its author's revision. A theory that made agreement constitutive of truth was found by its own author to require correction toward the independence of the object, and the correction is the distinction this paper takes from Bhaskar. The paper's position on agreement is accordingly narrow: agreement under favourable conditions is evidence about a relation and constitutes nothing.

3.8 Formulations that treat truth through position and power

Nietzsche [Nietzsche, 1887] treats knowing as perspectival throughout, and treats the will to truth as a phenomenon with a history and an interest behind it. Foucault [Foucault, 1980] develops the regime of truth: each society has procedures, techniques and authorities by which statements are made to count as true, and these have a political economy.

Nietzsche's position is produced by a classical philologist working on the transmission and corruption of texts, at a moment when the historical criticism of scripture had made the contingency of authoritative texts a public fact. Foucault's conditions are given in §5.3, where the archival infrastructure his method presupposes bears on the paper's own argument.

The family owns a strong version of the paper's first commitment and states it in terms of power, which the paper's account of conditions must accommodate. Where the family and the paper part is on the second commitment. A regime of truth explains how statements come to count as true; the paper needs, in addition, a relation that obtains whether or not any regime counts it, since without it §11 has nothing to preserve the conditions of recognising.

The paper accordingly takes the regime analysis as an account of the conditions of recognition and declines its extension to the relation.

3.9 Formulations that make historicity internal to understanding

The historicist lineage is the paper's own, and its debts here are the largest.

Vico [Vico, 1744] holds that we know in the strict sense what we have made, and derives from it the intelligibility of the human world to human inquiry. Dilthey [Dilthey, 1883] constitutes the human sciences around understanding and makes the historical situation of the knower internal to what is known. Croce [Croce, 1921] holds that all history is contemporary history, since the historian's present question organises the past addressed.

Collingwood is the closest of these and the concession is direct. On his account [Collingwood, 1939, 1940], a proposition has meaning and truth only relative to the question it answers, and the questions available to an inquirer rest on absolute presuppositions that vary historically and are not themselves propositions with truth values. Two theses this paper needs are already his: that what can be asked is historically conditioned, and that a change in the conditions changes what a later inquirer is even able to consider. The recursive form set out in §9 stands in his line.

Their conditions of production are worth recording, since they show a pattern. Vico wrote as a professor of rhetoric on the margins of a Naples in which the Cartesian programme carried institutional prestige he lacked. Dilthey wrote as the human sciences were being professionalised in the German university and needed a charter distinguishing them from the natural sciences that were then acquiring laboratories and budgets. Croce worked outside the university altogether, on private means, in an Italy whose idealist philosophy was a public and political matter. Collingwood held a chair in metaphysical philosophy at Oxford and conducted excavations of Roman Britain, and his account of question and answer is legible as a generalisation of the practice of an archaeologist, for whom the evidence answers the question put to it and nothing else.

What the paper adds to this lineage is stated in three parts. The lineage historicises the question and the presupposition, and the paper historicises the material conditions of recognition, which is a different and more specific claim. The lineage is largely silent on whether what goes unrecognised nonetheless obtains, and the paper commits on the point. And the lineage draws no consequence for present conduct, which is what Part IV supplies.

3.10 What this section leaves to the paper

Three results are carried forward. Claim 3.1 establishes that the paper's argument may proceed without a theory of truth, and holds for every family surveyed apart from the epistemic and anti-realist one, from which the paper distinguishes itself openly in §3.5. The convergence formulations of §3.3 supply the ordering that §8 will deny, and the denial is the paper's sharpest divergence from an ancestor it otherwise resembles. And the historicist lineage of §3.9 owns the historicity of the question, which the paper concedes and specifies materially.

What no family surveyed here supplies is any consequence for present conduct. A position on the historicity of understanding has been taken by many of these authors; a duty following from it has been derived by none. §5 establishes the same result for the literature that historicises the conditions of recognition directly, and §11 draws the consequence.

4 Reflection in Its Two Senses

Two bodies of work carry the name of reflection and are ordinarily kept apart. One concerns the turning of thought upon its own operations, and runs from Kant's reflective judgement through Hegel, Husserl and critical theory into the reflexive programmes of twentieth-century social science. The other is the materialist doctrine in which knowledge reflects a mind-independent world, developed in the Marxist tradition and contested within it. This paper uses both and must therefore treat them together. From the first it inherits the demand that its own account apply to itself, which §13 discharges. From the second it inherits the thesis that knowing is materially conditioned, which it retains, together with an image of knowledge as a copy, which it declines. The declination is argued at §4.8 and is required by the paper's second commitment.

4.1 The turning of thought upon its own determinations

Kant [Kant, 1790] distinguishes the determinative judgement, which subsumes a given particular under a given universal, from the reflective judgement, which seeks a universal for a particular when none is given. The reflective judgement supplies the form of an inquiry that must find its own principle. Hegel [Hegel, 1812] develops reflection in the Doctrine of Essence, where the determinations of thought are exhibited as generating one another, and thought is shown working on what it has itself posited. Husserl [Husserl, 1913] makes reflection the method of transcendental phenomenology, in which the constituting acts of consciousness are brought to view by an act of the same consciousness.

The conditions of these formulations belong to the German university's philosophical faculty across a century of its transformation: a professoriate charged with the systematic instruction of the state's officials, an examination culture organised around comprehensive doctrine, and a discipline whose prestige rested on its claim to ground the other faculties. What such an institution rewards is the demonstration that thought can secure its own foundations, and that is what these accounts of reflection undertake.

For this paper the family supplies the form of the problem in §13 and none of its solution. The self-application of a doctrine is here a transcendental matter, addressed by exhibiting the conditions of the possibility of thought; the paper's self-application is a historical matter, addressed by exhibiting the material conditions under which its own position became formulable.

4.2 Self-reflection in critical theory

Habermas [Habermas, 1972] argues that knowledge is constituted through interests: a technical interest in prediction and control organising the empirical-analytic sciences, a practical interest in understanding organising the historical-hermeneutic sciences, and an emancipatory interest organising the critical sciences. Self-reflection is the operation by which an inquiry brings its own constitutive interest to consciousness, and it is on this operation that the possibility of critique rests.

The position is produced in the post-war reconstruction of German critical theory, within a university financed by a state committed to democratic legitimation, and in the course of a public dispute with positivist social science over the standing of value-free inquiry. The tripartite scheme is legible as a settlement among the disciplinary formations then competing for the definition of social science.

The paper's debt is the thesis that an inquiry can be examined for the interest it serves, and that the examination is part of the inquiry. Its divergence is that the interests in the scheme are anthropologically deep and quasi-transcendental, while the conditions this paper points to are instruments, institutions and infrastructures that a historian can date.

4.3 Reflexivity in the social sciences

Three positions carry the reflexive demand into the study of society. Bourdieu [Bourdieu and Wacquant, 1992] requires that the analyst objectify the position from which the analysis is conducted, including the specific distortions imposed by the scholastic situation of one who observes a practice without the urgency of practising it. Luhmann [Luhmann, 1990] formalises the difficulty: every observation employs a distinction which it cannot itself observe in the act of employing it, so the blind spot is structural, and it becomes visible only to a second observer, whose own observing carries a blind spot in turn. Giddens [Giddens, 1984] states the double hermeneutic: the concepts of social science are taken up by the subjects it studies and alter the conduct described, so the object is reconstituted by its description.

The conditions differ and each is legible in the doctrine. Bourdieu's reflexivity develops out of ethnographic fieldwork conducted in colonial Algeria and in his own rural region of origin, which is to say from a position in which the observer's difference from the observed was a daily material fact. Luhmann's formalism belongs to a German sociology that had absorbed cybernetics and had access to a calculus of distinctions, and to an author working outside the empirical research apparatus. Giddens writes within a British sociology closely coupled to policy formation, where the uptake of social-scientific categories by administration and public alike was directly observable.

Luhmann's result bears hardest on this paper. If every observation carries a blind spot in principle, then the paper's own account of the conditions of recognition employs distinctions whose conditions it does not survey, and no amount of care removes this. §13 accepts the result and states what follows from it.

4.4 The reflexive demand in the sociology of scientific knowledge

Bloor [Bloor, 1976] states four requirements for a sociology of knowledge: that it be causal, impartial between true and false beliefs, symmetrical in the types of cause it invokes for both, and reflexive, in that its patterns of explanation apply to sociology itself. The fourth requirement is the strongest institutionalised statement of the demand this paper is under. Woolgar [Woolgar, 1988] and Ashmore [Ashmore, 1989] pursue it to its difficulty: a study that explains belief by social cause and applies the same explanation to itself generates a regress, and the literature's responses run from textual experiment to the acceptance of the regress as a condition of the enterprise.

The programme's conditions are specific and recent: the establishment of science studies as a funded field with its own posts and journals in Britain in the 1970s, at a moment when the authority of science had become a political question and when historians of science had produced case material detailed enough to support sociological analysis.

The consequence for this paper is a limit on what it may claim. The demand that an account of historically conditioned knowing be applied to itself is fully developed here, and the paper claims no originality in raising it. What §13 offers is a particular way of surviving it, resting on the paper's second commitment.

4.5 The materialist doctrine of reflection

Within the Marxist tradition, reflection names a relation between consciousness and a world that exists independently of it. Lenin [Lenin, 1909] states the doctrine at its most forceful: objects exist outside the mind, sensations and ideas are images or copies of them, truth consists in the correspondence of the copy to the object, absolute truth is approached through a sequence of relative truths, and practice is the criterion by which the correspondence is tested.

The conditions of production are unusually well documented and unusually determining. The book was written in 1908 and published in 1909, in the political reaction following the defeat of the 1905 revolution, as an intervention in a factional dispute within Russian Social Democracy over the empirio-criticism of Bogdanov and others. It was researched in exile, in the libraries of Geneva and London. The target was a position that a philosophical faction had adopted, and the argument's force is calibrated to that dispute, which accounts for its polemical form.

The attribution of a crude copy theory to Lenin is contested. Bakhurst [Bakhurst, 1991] argues that the Soviet tradition contains resources for a dialectical reading in which reflection is an active and mediated relation, and that the copy image is the polemic's instrument more than the doctrine's core. This paper's argument does not depend on the crude reading, and §4.8 is framed so that it does not.

Lukács [Lukács, 1971] and Ilyenkov [Ilyenkov, 1982] develop the tradition away from the image of passive registration. Ilyenkov's account of the ideal is the furthest development: the ideal is the form of social human activity, embodied in the objects and practices through which a culture reproduces itself, and it is therefore located neither in the head of the individual nor in nature. Ilyenkov wrote in the post-Stalin recovery of Hegel and the early Marx, within

an academy where the boundaries of permissible philosophical argument were a material condition of the work.

4.6 The spiral of practice and knowledge

Mao's *On Practice* [Mao, 1937] states a recursive form close enough to this paper's that the paper concedes it directly. The text was delivered as lectures in July 1937 at the Anti-Japanese Military and Political College at Yan'an, to an audience of cadres in a base area that had recently completed the Long March, and it was written to settle a practical dispute about the standing of experience against received doctrine within a party at war. Its material conditions are therefore those of an institution that had to train people quickly to act under conditions no manual described.

The argument holds that knowledge arises from practice in production, in social struggle and in scientific experiment; that it proceeds from perceptual to conceptual knowledge; and that it returns to practice, which tests it. The recursion is stated explicitly: practice, knowledge, again practice, again knowledge, the form repeating without end, with the content of each rising to a higher level at each cycle.

Two features of the paper's §9 are already present here. Knowledge is treated as arising through a cycle with no terminus, and each pass through the cycle is conditioned by what the previous pass produced. The paper claims no priority over either.

The divergence is exact and lies in a single word of the formulation. Mao's spiral ascends: each cycle raises the content to a higher level, and the sequence approaches correspondence. §8 denies both properties, on the grounds that recognition is lost, suppressed and absorbed as well as gained, and that no ordering over historical states of knowledge follows from the materialist premise alone. What the paper retains from the text is the primacy of practice among the conditions of recognition; what it declines is the guarantee of ascent.

4.7 The break with reflection

Althusser [Althusser, 1969, Althusser and Balibar, 1970] rejects the image of knowledge as a reflection of its object and replaces it with an account of knowledge as production. Theoretical practice works on a raw material of existing concepts and ideological notions, by means of a conceptual apparatus, to produce knowledge as its product; the three moments are named Generalities I, II and III. The critique of empiricism is the core of the position: empiricism construes knowledge as the extraction of an essence already present in the real object, which conceals the labour by which knowledge is made and the apparatus that performs it.

The conditions are those of the École Normale Supérieure and of a French Communist Party undergoing a doctrinal crisis, at a moment when structural linguistics had made the analysis of systems without subjects intellectually available, and when the publication of Marx's early writings had reopened the question of what Marxism was.

Althusser is the paper's closest ally in this section on one point and its opponent on another. The account of knowledge as produced through an apparatus, and the refusal of the image of extraction, are what the paper's materialism amounts to at the level of theory. The

distinction Althusser draws between the object of knowledge and the real object is a step the paper declines to follow to its conclusion, since the paper requires that what is eventually recognised be the same relation that obtained while unrecognised. Where Althusser secures the autonomy of theoretical practice by severing its object from the real, the paper secures it by locating the historicity in the conditions of recognition and leaving the relation alone.

4.8 The position this paper takes

The two senses of reflection converge on a single decision for the paper, and it is stated here because §6 will rely on it.

Claim 4.1. *A doctrine construing knowledge as a copy of its object has no resources to assert that a relation obtains where no copy has been formed. The materialist thesis that knowing is materially conditioned is separable from the image of knowledge as a copy, and this paper retains the first while declining the second.*

The argument for Claim 4.1 is short. On a copy account, what makes it the case that a relation is known is the existence of a copy standing in the appropriate relation to it. Absence of the copy is therefore the whole of what can be said about an unrecognised relation, and the account has nothing further with which to characterise the relation's standing. The paper's second commitment requires exactly that further characterisation: that the relation obtains, that its obtaining is independent of the state of any describer, and that the describer's failure is a fact about the describer. Ilyenkov's relocation of the ideal into the forms of social activity, and Althusser's account of knowledge as produced, both loosen the copy image; neither supplies the independence claim, since both are concerned with the constitution of knowledge and not with the standing of what has yet to be known.

Two consequences are carried forward. The paper is materialist in the conditioning sense throughout, and it takes the primacy of practice from §4.6 as one of the conditions of recognition. And the paper's account of what obtains while unrecognised is taken from §3 and §5 and not from the reflection tradition, which does not supply it.

The reflexive demand is carried forward as an obligation. §13 returns to Bloor's fourth requirement, to Luhmann's blind spot and to Ashmore's regress, and states what the paper can and cannot do about them.

5 Positions That Historicise the Conditions of Recognition

The positions surveyed in this section hold, in one form or another, the paper's first commitment. They are its closest ancestors, and how much of the paper is new is settled here. Three are conceded first-class, in the sense that the paper takes over a claim of theirs without qualification and claims no priority: Hacking on the historical introduction of candidates for truth and falsehood, Fricker on the real relation lacking the resources for its own articulation, and Bhaskar on the distinction between the changing knowledge of an object and the object known. The section closes by stating what remains.

5.1 Thought style and thought collective

Fleck [Fleck, 1979] holds that a scientific fact is generated within a thought collective possessing a thought style, that the style directs what can be perceived as a fact, and that the collective's internal structure of esoteric and exoteric circles governs how a candidate hardens into a fact. The case worked through is the Wassermann reaction and the modern concept of syphilis.

The conditions of the position are those of the author's own labour. Fleck practised as a microbiologist in serological laboratories in Lwów, performing the very reaction he analyses, and wrote from the position of someone who watched a fact stabilise while participating in the collective that stabilised it. The book appeared in Basel in 1935 with a Polish-Jewish author outside the German academic system, and it went unread for four decades, until a changed field of philosophy of science supplied readers for it. Its own reception exhibits the thesis it argues.

The family owns the claim that what counts as an observable fact is collectively and stylistically conditioned. What it does not treat is the standing of a relation for a collective that has no style capable of registering it, which is where this paper's second commitment operates.

5.2 The obstacle and the recurrent history

Bachelard [Bachelard, 1938] holds that scientific advance proceeds through breaks with epistemological obstacles, which are formed by common sense and by prior science alike, so that what blocks recognition is itself a product of earlier knowing. Canguilhem [Canguilhem, 1966, 1968] develops a recurrent history, written from the present state of a science to identify which of its predecessors belong to its formation, and shows in the case of the normal and the pathological that the categories organising a field of medical recognition are historically constituted.

Both work within a French institutional formation with no counterpart elsewhere: a chair and an institute for the history of science attached to the philosophical faculty, which made the technical history of the sciences a philosophical qualification. Bachelard came to it after a career teaching physics and chemistry in a provincial lycée, and Canguilhem trained in medicine.

What the family adds to Fleck is that obstruction is produced by prior knowledge, so that a period's capacity to recognise is limited by what it has already established. §7 takes this over as one of the mechanisms by which inherited categories become inadequate.

5.3 The historical conditions of statement

Foucault [Foucault, 1970, 1972] develops the historical a priori: at a given period a field of conditions governs what may count as a serious statement, which objects may be spoken of, and from what positions. The conditions are not the beliefs of the period's inhabitants and are ordinarily invisible to them.

The archaeological method presupposes an infrastructure. It requires archives of administrative and clinical documents preserved at scale, catalogued and accessible to a scholar with

the time to work through them, and it belongs to a French system that supported exactly that. The political conjuncture after 1968 supplied the audience.

This is the strongest general statement of the paper's first commitment and the paper concedes it as such. Two differences bear on later sections. The historical *a priori* is described and not explained by the material conditions that produce it, which is the work §7 undertakes. And the field of the sayable is treated as the limit of what can be investigated, where §6 treats it as the limit of what a party is positioned to recognise, which leaves the relation outside it in a different standing.

5.4 Styles of reasoning and the introduction of candidates

Hacking's position is the closest ancestor of the paper's central descriptive claim and is conceded without reservation. On his account [Hacking, 1982, 1992, 2002], a style of reasoning introduces new candidates for truth and falsehood: sentences that had no truth value available to them become assessable when a style capable of assessing them comes into being. He is careful about the scope of the thesis. The style fixes what is a candidate, and settles no question about which candidates are true; there is a space between being assessable and being definitely true or false; and the position is offered as a middle course between an objectivism that makes the historical development irrelevant and a subjectivism that makes truth a matter of decision. The list of styles is taken over from Crombie's history [Crombie, 1994].

The conditions of Hacking's position are those of a philosophy of science that had absorbed Kuhn, that had access to a large body of technical history of science produced by a now-professional discipline, and that was situated in a North American and British academy where interdisciplinary appointments spanning philosophy and history had become available.

The paper claims no priority over the thesis that historical conditions introduce new candidates for truth and falsehood. Three differences define what remains. Hacking's conditions are styles of reasoning, and the paper's are material and institutional: instruments, infrastructures, forms of labour and the organisation of inquiry, each datable and locatable. Hacking brackets the standing of the relation, holding that there is no truth of the matter expressed by such sentences independently of their embedding in a style, and the paper commits to the opposite in §6. And Hacking draws no consequence for present conduct, which is Part IV.

The principal criticism of the position bears on the paper and is recorded. Kusch [Kusch, 2010] objects that the reliance on Crombie yields a dated historiography, that the account fails to secure distance from epistemic relativism, and that no convincing criterion individuates one style from another. The third objection transfers to this paper in modified form, since the paper must say what individuates one configuration of the conditions of recognition from another. The paper's answer is partial and is stated where it is used: its conditions are material entities and arrangements with dates and locations, so individuation is a historical question with historical evidence bearing on it, and §16 records that this falls short of a criterion.

5.5 The historical formation of epistemic virtues

Daston and Galison [Daston and Galison, 2007] establish that objectivity itself has a history. Through the study of scientific atlases they exhibit a succession of epistemic virtues, from truth-to-nature in the eighteenth century, through mechanical objectivity in the nineteenth, to trained judgement in the twentieth, each bound to a form of scientific selfhood and to particular practices of image-making; the virtues accumulate and coexist as much as they replace one another.

The work depends on a material archive of a specific kind, namely the printed atlas as an artefact whose production technique is legible in the object, and on the availability of image reproduction adequate to the argument. It belongs to a history of science with the resources for large comparative projects across national collections.

The result matters to this paper at §10.2, since it establishes that the standards by which candidates are appraised are themselves historical products. That is the difficulty §10.2 confronts, and it arrives here with historical evidence behind it.

5.6 Social position and what can be seen from it

Standpoint theory holds that social position bears on epistemic access. Hartsock [Hartsock, 1983] argues that the position of the dominated affords a view of a social totality unavailable from the position of the dominant. Harding [Harding, 1991] develops strong objectivity: beginning inquiry from marginalised lives exposes background assumptions that inquiry starting from dominant positions leaves unexamined, so the procedure increases objectivity by the discipline's own standard. Collins [Collins, 1990] develops the outsider-within position and treats subjugated knowledge as knowledge.

The conditions are legible and recent. The positions were formulated as women and, in Collins's case, Black women entered academic employment in numbers sufficient to constitute a research programme, in a period when a social movement outside the university supplied both the questions and an audience. The material change in who was employed to inquire is part of the argument's content and part of its condition.

The family owns the claim that what can be recognised depends on the position from which recognition is attempted, which the paper's first commitment requires. Harding's strong objectivity additionally supplies a model the paper follows in form: a procedure justified by the discipline's own epistemic standard and not against it.

5.7 Communities and the assessment of evidence

Longino [Longino, 1990] holds that objectivity is a property of communities and not of individuals, secured to the degree that a community sustains venues for criticism, uptake of criticism, public standards, and a distribution of intellectual authority that permits dissent to be heard. Background assumptions mediate the evidential relation, so what a body of data supports depends on assumptions that criticism must be able to reach.

The position belongs to a philosophy of science in which feminist criticism of scientific

practice had produced case material, and to an institutional setting where the social organisation of inquiry was becoming a philosophical object.

The result carried forward is that the conditions of recognition include the conditions of criticism, which §12 uses when it turns from revisable judgements to revisable structures.

5.8 Relations lived without the resources to articulate them

Fricker's account of hermeneutical injustice [Fricker, 2007] is the sharpest existing statement of the case this paper generalises, and it is conceded first-class. A gap in the collective interpretive resources may leave a person unable to make sense of a significant area of their own experience, and the disadvantage falls unequally, since the gap is produced by the exclusion of the affected group from the practices through which interpretive resources are made. The paradigm case is the experience of a woman subjected to what was later named sexual harassment, at a time when no such name existed and the experience could be neither articulated by its subject nor recognised by an institution.

The conditions of the position include the prior existence of the movements that closed the gap Fricker analyses, without which the case would not be available as a case, and an academic social epistemology that had turned toward the ethical dimensions of knowing.

Three elements the paper needs are already here. The relation is real while unrecognised: the conduct occurred, the cost was borne, and the absence lay in the interpretive resources. The absence is socially produced and unequally distributed. And its remedy consisted in a change to the collective resources, which is a change in the conditions of recognition. The paper claims no priority over any of the three.

What the paper adds is stated in two parts. Fricker's conditions of recognition are hermeneutical, and consist of the concepts and interpretive resources that a collective holds; the paper's are material and institutional, and the hermeneutical resources are one component among instruments, infrastructures, employment and the organisation of inquiry. And Fricker's account is addressed to a wrong already done, while the paper's Part IV is addressed to conditions not yet foreclosed.

5.9 The production of ignorance

Work on the production of ignorance establishes that non-recognition has causes and is sometimes made. Proctor and Schiebinger [Proctor and Schiebinger, 2008] treat ignorance as structured and produced, with the manufacture of doubt about tobacco as the exemplary case. Tuana [Tuana, 2006] distinguishes forms of ignorance by the mechanism producing them and shows a body of knowledge about women's bodies being lost, suppressed and later reconstituted. Mills [Mills, 1997] treats a structured pattern of not-knowing as a condition of a political order.

The conditions of the field include the availability of litigation discovery documents, which converted the deliberate production of doubt from a suspicion into a documented fact, and a period in which the political stakes of scientific credibility were high enough to fund the work.

This is the evidential basis for the paper's third commitment and it is used in §8. What the family establishes is that the trajectory of recognition includes losses, that the losses are caused, and that some of them are intended.

5.10 The self-application of the sociology of knowledge

Mannheim [Mannheim, 1936] holds that thought is bound to a social location, and faces directly the objection that the doctrine binds itself. His answer has two parts: relationism, on which a body of thought is bound to a position and yet valid within it, distinguished from a relativism that would make all thought equally arbitrary; and the relatively unattached intelligentsia, whose members are recruited across classes and are therefore positioned to synthesise perspectives.

The position was formed in the Weimar university, among a stratum of academics whose own class position had been destabilised by inflation and political collapse, and whose situation the second part of the answer describes.

Both parts bear on this paper. Relationism is the distinction that §10 must draw, and the ancestor of that attempt is the version given here. The unattached intelligentsia is the part later criticism has found unsustainable, since it exempts a class by describing it, and §13 states why the paper does not follow it.

5.11 The changing knowledge and the object known

Bhaskar [Bhaskar, 1975] distinguishes the transitive dimension, consisting of the theories, instruments and trained capacities with which inquiry is conducted and which change constantly, from the intransitive dimension, consisting of the structures and mechanisms that inquiry is about and that do not change when knowledge of them does. The epistemic fallacy is the reduction of questions about what exists to questions about what is known. Judgemental rationality is the third element: that criteria of appraisal are historically formed does not preclude rational preference among competing accounts.

The position is produced within a British philosophy of science reacting against positivism, at a moment when the practice of experiment had become the standard example of scientific knowing and when the failure of positivist reconstructions of that practice had become a common starting point.

The distinction is the paper's principal borrowed tool. It supplies the form in which the paper's first two commitments are held together, and without it the paper's historicising would collapse into the doctrine it declines.

Bhaskar himself limits the distinction where the objects are social. In *The Possibility of Naturalism* [Bhaskar, 1979] he holds that social structures depend on the activities they govern and on the conceptions the agents have of those activities, so that they exist only in virtue of activities that are themselves concept-laden, and are more dependent on their spatial and temporal location than natural structures are. This is a direct difficulty for the paper, since the paper's cases are largely social and §2.1 said so. §6.3 addresses it, and the difficulty is recorded here so that a reader meets it in the survey and not in the objection.

5.12 The historicity of the standards of appraisal

Kuhn [Kuhn, 1962] establishes that the standards by which a claim is appraised belong to the paradigm within which appraisal occurs, so that appraisal across a revolution has no neutral ground. Lakatos [Lakatos, 1970] reconstructs appraisal over time, with research programmes assessed as progressive or degenerating by the novel predictions they yield. Laudan [Laudan, 1984] goes furthest, holding that the aims of inquiry and the methods for pursuing them are themselves revisable and adjust to one another together with theories.

A common grouping of these three requires correction. Lakatos intended his own methodology of appraisal to stand outside the historical variation it describes, which distinguishes his position sharply from Kuhn's and from Laudan's. For the historicity of standards and aims themselves, Laudan is the closer ancestor.

The conditions of the group are those of a philosophy of science with a professionalised history of science to draw on, and of a Cold War academy in which the rationality of science was a matter of public and political interest.

The result carried forward is the one that generates the paper's own difficulty. If the standards of appraisal are historical products, the paper's claim that one account is better supported than another is made by criteria standing inside history. §10.2 confronts this and declines to resolve it.

5.13 What remains

The concessions of this section are large. That historical conditions introduce new candidates for truth and falsehood is Hacking's. That a real relation may be lived without the collective resources to articulate it is Fricker's. That the changing knowledge of an object must be distinguished from the object known is Bhaskar's, together with the qualification he places on it for social objects. That the conditions of statement are historical is Foucault's, that facts stabilise within collectives is Fleck's, that prior knowledge obstructs is Bachelard's, that epistemic virtues have a history is Daston and Galison's, that position governs visibility is standpoint theory's, that objectivity is a property of communities is Longino's, that ignorance is produced is agnotology's, and that standards of appraisal are historical is Kuhn's and Laudan's.

Claim 5.1. *Granting the historicity of the conditions of statement, the historical introduction of candidates for truth and falsehood, the reality of relations lacking the resources for their articulation, the historical formation of epistemic virtues and standards of appraisal, the dependence of visibility on position, and the produced character of ignorance, no position surveyed in §3 or §5 derives from any of these an obligation on present actors concerning the conditions under which future recognition could occur.*

Claim 5.1 is the paper's residue and its scope should be stated exactly. It is a claim about the literature surveyed, bounded by what a survey can establish, and it is offered in that form; no work known to the author assembles the derivation, and a counter-example would narrow the paper's contribution to a synthesis. §11 draws the derivation, and §11.5 compares it with the positions that come nearest to it from other premises.

6 The Dependence of Recognition on Historical Conditions

Part II established what the paper owes and what remains. This section states the claim on which the remainder rests.

6.1 The claim

Claim 6.1. *The conditions under which a relation can be observed, articulated, tested and contested are materially and institutionally produced and historically variable. The obtaining of the relation is independent of those conditions. A failure of recognition at a given historical moment is therefore a fact about the situation of the parties attempting it, and is no fact about the relation.*

The claim has two clauses and they do different work. The dependence clause concerns recognition and is the paper's inheritance from §5. The independence clause concerns the relation and is what separates the paper from the epistemic accounts of §3.5, from Hacking's bracketing in §5.4, and from the copy doctrine refused in §4.8. Each clause is argued separately, since a reader may accept one and refuse the other, and the pairing is what the paper needs.

The dependence clause is stated over a composite capacity. To recognise a relation, in the sense used here, is to be able to observe it, to state it in available terms, to subject the statement to a test that could go either way, and to raise the statement where it can be disputed. The four come apart. A relation may be observable and unstatable, statable and untestable, testable and unraisable in any forum whose judgement carries consequence. The conditions of each are material: instruments and the labour trained to use them; archives, records and the infrastructures that carry them; the conceptual apparatus assembled and transmitted through education; the institutions that employ inquirers and determine what they inquire into; and the forums in which a claim can be contested with effect. All of these are produced, all are unevenly distributed, and all change.

6.2 The independence clause and its ground

The independence clause asserts that the obtaining of a relation does not wait on the conditions of its recognition. Three considerations support it, and none of them is a metaphysical postulate.

The first concerns what the evidence for a limitation is evidence about. When a period is found to have been unable to recognise something, the finding is established by examining that period's instruments, categories, institutions and positions. The evidence concerns describers. To convert such evidence into a claim about the relation, to the effect that there was nothing there until the conditions arrived, requires a further premise that the evidence does not supply. The paper declines to add it. This makes the paper's position perspectival in its ground and structural in its force: the limitation is a limitation of situated parties, and the situatedness of parties is a permanent feature of inquiry, so improvements in instruments move the boundary of what is recognisable and leave the structure in place.

The second concerns what a later recognition is a recognition of. When collective resources change and a relation becomes articulable, the parties who articulate it ordinarily hold that the relation obtained before they could name it, and their practice depends on holding so. Claims are made about the past, harms suffered earlier are counted as harms, and records made under the old conditions are read as evidence of the relation now named. Fricker's case in §5.8 is of this form: the conduct occurred, the costs were borne, and the change consisted in the arrival of resources adequate to state what had occurred. An account that denied the independence clause would have to reconstrue all of this as the retrospective creation of a past, and would leave unexplained why the newly available resources fit some stretches of the record and fail against others.

An objection meets the second consideration and should be met in turn. The objection holds that the fit is manufactured, since the record is itself read through the new resources, so its resistance to a poor fit is not independent evidence. The objection has force and the paper does not claim to defeat it. What it claims is weaker: the practice of inquiry proceeds throughout on the assumption the objection denies, the objection supplies no alternative account of the differential fit, and the burden of the further premise remains where the first consideration placed it.

The third consideration is that the paper's own argument requires the clause. Part IV concerns the preservation of conditions under which relations presently unrecognised could later be recognised. Where nothing obtains until recognition arrives, there is nothing that later conditions would allow to be recognised, and the preservation argument loses its object. The clause is therefore load-bearing, and §16 records that a reader who refuses it may still accept §§3–5 and must abandon Part IV.

6.3 Concept dependence in social relations

§2.1 declared that the paper's cases are largely social, and §5.11 recorded the difficulty this creates. Bhaskar [Bhaskar, 1979] holds that social structures exist only in virtue of the activities they govern, and that those activities are performed under the conceptions the agents have of them. A structure so described appears to depend on the conceptions of the agents, and the independence clause appears to fail exactly where the paper needs it.

The difficulty dissolves once two claims are separated. The first is that the activities composing a social structure are concept-laden, so that the description of what the agents are doing runs through what they take themselves to be doing. The second is that the structure composed by those activities is available to the agents under a concept naming it. The first is Bhaskar's thesis and the paper accepts it. The second is a much stronger claim, and Bhaskar's own position requires its denial.

The reason is that critical social science, on his account and on any account of the same family, consists in the exhibition of structures that agents reproduce without an adequate conception of them. Where the agents' conceptions were sufficient for the structure, the structure would be transparent to its participants and the inquiry would have nothing to establish. The gap between what agents take themselves to be doing and the structure their activities com-

pose is therefore the condition of the possibility of the enterprise, and not an embarrassment to it.

The paradigm case exhibits the separation. The conduct at issue in Fricker's case was performed by agents holding conceptions adequate to their own actions, of employment, of supervision, of complaint, of resignation. Those conceptions were sufficient for the activities to be the activities they were. The pattern composed by the activities, consisting in a distribution of conduct, of sanction, of cost and of available exit, obtained in full while no party held a concept naming it. What arrived later was a concept of the pattern, and what it made possible was the pattern's articulation, its testing and its contestation. The material relations composing the pattern, of employment, of dependence, of the capacity to impose cost, were in place throughout and did not wait on their own description.

This yields the paper's position on the difficulty. Social structures depend on concept-laden activities, and this dependence is compatible with the independence clause, since the concepts required for the activities are distinct from the concept under which the structure would be recognised. The independence clause is therefore stated for the relation composed and not for the activities composing it.

The cost is stated. The argument holds where the concepts required for the activities and the concept naming the pattern come apart, and there will be structures for which they do not, in which the naming concept is among those the agents must hold for the activities to occur. For such cases the paper's claim is weaker, and §16 records the restricted form the paper would fall back to, in which the independence clause is asserted without qualification for relations that are not constituted by their participants' conceptions, and asserted as a defeasible extension elsewhere.

6.4 A notation for the conditions of recognition

It is convenient to have a way of naming the argument places of the dependence clause. Write

$$\mathcal{T}_t = \Phi(W_t, M_t, R_t, L_t, P_t, H_{\leq t}),$$

where $\mathcal{T}_t$ denotes what is recognisable at t ; W_t the observable conditions of the world at t ; M_t the material and technical capacities available; R_t the relations among inquirers and among the institutions employing them; L_t the symbolic and conceptual systems assembled and transmitted; P_t the practices through which a claim can be tested or undergone; and $H_{\leq t}$ the accumulated history that produced the other five.

The expression is notation and no model. No functional form is proposed for Φ , no solution is sought, no argument in this paper depends on the expression, and every claim stated with it could be stated without it. Its use is to keep the six argument places distinct, since arguments about the historicity of knowing frequently slide between the availability of instruments and the availability of concepts, and between either and the organisation of inquiry.

Two features of the notation misrepresent the account and are recorded here. Writing $\mathcal{T}_t$ as a function of its arguments suggests that the arguments determine the value, and §8 holds that the same material conditions support very different states of recognition depending on

how inquiry is organised and on what has been suppressed. And writing $H_{\leq t}$ as an argument alongside the others suggests that accumulated history acts separately from the conditions it produced, where the account holds that it acts through them.

6.5 Boundaries of the claim

Four positions are excluded by Claim 6.1 and are stated here so that later sections may rely on the exclusions.

The claim does not assert that the world is unknowable. The limitation it describes attaches to parties at moments, and the boundary of what is recognisable moves as their conditions change.

The claim does not assert that truth varies with the conditions of recognition. §3 established that the paper's level of analysis is available on correspondence, coherence and deflationary accounts of the truth property alike, and Claim 6.1 is stated at that level throughout.

The claim does not assert that recognition improves. §2.2 declined the developmental thesis and §8 argues the point directly.

The claim does not assert anything about how much goes unrecognised at any moment. No census of unrecognised relations is available to a party inside the conditions it describes, and the paper's arguments in Part IV are constructed so that none of them requires one. What Part IV requires is the weaker premise that the conditions of recognition will differ, and §2.2 established that the conditioning thesis alone supplies it.

With Claim 6.1 in place the paper's thesis can be stated in the form used in §1 and repeated in §17. History supplies repeated occasions of recognition produced under differing material conditions, and what we name truth is what holds across them.

7 Material Conditions and the Generation of Epistemic Objects

Claim 6.1 asserts that the conditions of recognition are materially and institutionally produced. This section says what that production consists in, and it does so at the level of detail the claim requires. A framework asserting that instruments, institutions and infrastructures govern what can be recognised owes an account of how each does so, and the account must be specific enough that a historian could contest it.

7.1 Instruments and the enlargement of the observable

The most direct route by which material conditions govern recognition runs through the instrument. An instrument makes available a class of observations that were unavailable before it, and with them a class of objects about which questions can be asked and disagreements settled. The point is not that the instrument reveals what was hidden, which would understate the transformation. An instrument establishes a practice: it must be built, maintained, calibrated and trusted; the persons who operate it must be trained; the readings must be interpreted through a body of theory about the instrument itself; and disputes about the readings

must be adjudicable by procedures the field accepts. The observable class exists once all of this holds, and the instrument alone is a piece of apparatus.

Two consequences follow for the paper. Instrumental capacity is unevenly distributed and its distribution is a matter of expenditure, so the boundary of the observable falls differently for differently resourced parties at the same historical moment. And the maintenance of an observable class is continuous work: where the trained personnel disperse or the calibration practice lapses, the class contracts, which §8.3 takes up.

7.2 Institutions, labour and the direction of inquiry

Recognition requires that somebody inquire, and inquiry is labour performed under conditions of employment. Who is employed to inquire, into what, for how long and under whose direction determines which relations are attended to. The determination operates at several scales at once. A funding regime selects fields; a disciplinary formation selects problems within a field and supplies the criteria by which a problem counts as well posed; a career structure selects the timescale on which a problem must yield; and the composition of the inquiring population selects, through the experience its members bring, which phenomena are salient enough to be taken as problems at all. §5.6 recorded the last of these as standpoint theory's result, and the material fact underlying it is a fact about employment.

Two things follow. The direction of inquiry is a distributional matter with no neutral setting, since any allocation of inquiring labour attends to some relations and leaves others unattended. And a relation may go unrecognised for want of any party whose situation makes it worth the labour, which is a form of non-recognition that no improvement in instruments corrects.

7.3 Infrastructures of record and transmission

Recognition extends over time and requires that the products of earlier inquiry remain available. Archives, libraries, catalogues, publication systems, standards of citation, translation and the technical means of copying constitute the infrastructure through which a later inquirer can encounter an earlier result. The infrastructure is material, is expensive, and decays without maintenance.

The infrastructure governs recognition in a way easy to overlook. A result that has been established and then rendered unfindable is unavailable to inquiry in the same way as a result never established, with the difference that the labour of establishing it has been spent. The conditions of recognition therefore include the conditions of retrieval, and §12 draws the institutional consequence.

7.4 Contradiction and the exhaustion of inherited categories

Inherited categories are formed under conditions and carry those conditions in their structure. When the conditions change, the categories may cease to sort the phenomena, and the failure appears in a determinate form: cases that the categories place on both sides at once, or on

neither; distinctions that no longer track any difference that matters to practice; procedures that yield conflicting results applied to what the categories count as the same case.

This is the mechanism by which the materialist tradition explains conceptual change, and the paper takes it over. A contradiction of this kind is an event in a practice: parties applying inherited categories in the ordinary course encounter cases the categories cannot handle, and the encounter is what makes the inadequacy visible. It requires no external vantage point, which is why it can occur to parties who hold the categories in question.

Two features of the mechanism matter for later sections. The contradiction arises in application, so the conditions under which it becomes visible are the conditions under which the practice is conducted; a category that is never applied to a hard case is never found wanting. And the contradiction establishes the inadequacy of the inherited categories and supplies no successor, so the generation of a successor is a separate matter, treated in §9.

7.5 What selects among contradictions

The mechanism of §7.4 is incomplete in a way that should be stated plainly, since the incompleteness bears on how much the paper's account explains.

Practices generate contradictions of the kind described constantly, and the overwhelming majority are absorbed. The anomalous case is set aside as unrepresentative, the conflicting result is attributed to an error of execution, the distinction that no longer tracks a difference is retained for convenience, and the practice continues. Only a small proportion of contradictions discharge into a revision of the categories. An account that treats contradiction as the generator of conceptual change therefore owes a further account of what distinguishes the contradiction that discharges from the very many that are absorbed, and this paper does not supply one.

Something can be said about what such an account would require. It would have to be stated over the condition of the practice at the moment of the encounter, since the same contradiction, identical in content, is absorbed at one moment and decisive at another; the difference lies in how much has already accumulated. It would therefore be a claim about proximity to a threshold, and the parties within the practice are ordinarily unable to observe that proximity, which is why the significance of a contradiction is assigned in retrospect.

The consequence for this paper is a restriction on what §7 claims. The section establishes that material conditions generate the occasions on which inherited categories are found wanting, and it does not establish which occasions produce revision. §16 records the gap among the paper's limits, and no argument in Part IV depends on closing it.

8 The Enlargement and Contraction of What Can Be Recognised

§7 treated the production of the conditions of recognition. This section treats the trajectory of what those conditions make recognisable, and argues the paper's third commitment.

8.1 A notation for what is recognisable

Let $\mathcal{R}$ denote the relations that obtain, and let $\mathcal{V}_t \subseteq \mathcal{R}$ denote those recognisable at t by parties in a given situation. The subscript carries a party as well as a time, since §7.1 established that the boundary falls differently for differently resourced parties at the same moment; where the party is not at issue the subscript is written for the time alone. As in §6.4, the notation names distinctions and models nothing.

Two features of the notation should be stated. It is written from outside, and no party occupies the position from which $\mathcal{R} \setminus \mathcal{V}_t$ could be surveyed; §6.5 declined any census of the unrecognised for this reason. And membership in $\mathcal{V}_t$ is a matter of degree along four dimensions, since §6.1 defined recognition as a composite of observing, articulating, testing and contesting, and a relation may be inside on some and outside on others.

8.2 Enlargement through encounter

One route of enlargement is the encounter between traditions, practices or bodies of experience formed under different conditions. Where two situations have different instruments, different institutional positions and different accumulated histories, their boundaries of recognisability differ, and each is positioned to raise questions the other has no occasion to raise.

The encounter enlarges by two distinguishable operations. The first is transfer: a relation recognisable in one situation becomes recognisable in the other through the transmission of an instrument, a technique or a concept. The second is generation: the confrontation of two bodies of practice yields questions that neither situation would have generated on its own, ordinarily because each contains cases the other's categories mishandle, which is the mechanism of §7.4 arriving through a route other than the passage of time.

Two qualifications belong here. Encounter under conditions of gross asymmetry ordinarily proceeds by the displacement of one body of practice, which produces contraction on one side while producing enlargement on the other, and the aggregate result is not settled by the fact that an encounter occurred. And the transfer of an instrument transfers an observable class only where the practice sustaining it transfers with it, which §7.1 established requires trained labour, maintenance and adjudicative procedure.

8.3 Contraction

The trajectory of $\mathcal{V}_t$ includes losses, and the mechanisms are as material as those of enlargement.

Practices lapse. Where the personnel trained in a technique disperse and the training is not reproduced, the observable class that the technique sustained contracts, whatever remains written down about it. Records become unavailable. An archive that is destroyed, dispersed, left uncatalogued or held in a form no longer readable removes results from the reach of inquiry as effectively as their never having been established. Recognition is suppressed. §5.9 recorded the literature establishing that non-recognition is produced, that the production is sometimes deliberate, and that the manufacture of doubt about an established result is an

available and effective technique [Proctor and Schiebinger, 2008, Tuana, 2006]. Categories are absorbed. A distinction that arose from a contradiction may be taken into an institution as a term of art, retained in name while the practice that made it assessable is discarded, so that the institution reproduces the vocabulary of a recognition it can no longer perform. And a body of knowledge may be lost through the disappearance of the group that carried it, which is the case Tuana documents for knowledge of women's bodies and which recurs wherever a knowing practice is tied to a population that is dispersed or destroyed.

These are not aberrations from a normal course of accumulation. They are the ordinary operation of the same conditions that produce enlargement, since the conditions of recognition require continuous maintenance and any interruption of the maintenance is a loss.

8.4 The absence of a guaranteed direction

Claim 8.1. *No ordering over historical states of recognition follows from the material conditioning of recognition. The conditions that enlarge what is recognisable are the same conditions whose interruption contracts it, and both operations proceed continuously.*

Claim 8.1 is the paper's third commitment and it is asserted at exactly this strength. It denies a guarantee and asserts no counter-guarantee: nothing in the paper holds that recognition characteristically contracts, or that any particular period was worse positioned than its predecessor. The claim is that the materialist premise supports neither direction, and that a direction must be established by historical evidence in each case.

The claim requires the paper to refuse three positions it otherwise resembles, and the three refusals share a single ground.

Peirce's final opinion [Peirce, 1878] supplies an ordering by identifying truth with the terminus of inquiry. The identification requires that inquiry, pursued long enough, converge. §8.3 supplies the reason for doubting it: the conditions that would have to persist for convergence are maintained conditions, and their maintenance is contingent on arrangements that fail regularly.

Mao's spiral [Mao, 1937] supplies an ordering by holding that each cycle of practice and knowledge raises the content to a higher level. §4.6 conceded the recursive form and declines the ascent, on the same ground: the cycle's continuation depends on the reproduction of the practice, and the practice can be interrupted, redirected or destroyed by the same forces that constituted it.

Wright's superassertibility [Wright, 1992] supplies an ordering by asking what remains assertible under every enlargement or improvement of the state of information. The formulation presupposes that states of information can be ordered by improvement, and §8.3 denies that historical states of information stand in any such order.

The common ground of the three refusals is that each requires the maintenance of conditions as a background assumption, and the paper's materialism makes maintenance a historical achievement with costs, which some periods pay and others do not.

8.5 What survives variation in the conditions

A question arises immediately from Claim 8.1 and is the sharpest one the paper faces. If the sequence of historical states of recognition converges on nothing, what does the recurrence of rethinking yield? An account that answered nothing would have made the sequence a record of successive rearrangements, which §1 declined at the outset.

The answer this paper gives is the following. Occasions of recognition produced under differing material conditions constitute differing tests. A relation registered by one configuration of instruments, institutions, concepts and practices, and registered again by a configuration differing in each of these, has survived a variation that a relation registered twice under the same configuration has not. What holds across differently conditioned occasions of recognition is therefore supported by evidence of a kind that no single occasion supplies, however refined that occasion is.

Claim 8.2. *Invariance across occasions of recognition produced under differing material conditions is evidence bearing on the obtaining of a relation, and the evidence is unavailable within any single configuration of those conditions. The recurrence of inquiry under changing conditions is therefore an epistemic requirement and no mere concession to human fallibility.*

Three features of Claim 8.2 bound it, and each corresponds to a position the paper has already declined.

The invariance is evidential and constitutes nothing. §3.5 distinguished the paper from Wright on exactly this point, and the distinction is what keeps Claim 8.2 from becoming a definition of truth by another route. What holds across differently conditioned occasions is evidence about a relation that obtains independently of every one of them.

The invariance supplies no guarantee and no ordering. A relation may survive many variations and fail against a configuration not yet available, and Claim 8.1 forbids treating the record of survivals as a converging sequence. What Claim 8.2 supplies is evidence of differing strength, and no terminus.

The variation must be genuine. Occasions differing only in date, conducted with the same instruments by the same institutions under the same categories, supply repetition and no variation. The evidential value of the recurrence depends on the conditions actually differing, which makes the plurality of inquiring situations an epistemic condition and not a courtesy. §12 and §14 draw the institutional consequence, and §11 draws the consequence for what a present actor may destroy.

This is what the paper's thesis states. History supplies repeated occasions of recognition produced under differing material conditions, and what we name truth is what holds across them.

9 The Recursive Form of the Movement

The materials are now in place to reconstruct what §1 described. Rethinking, on the account developed here, is a movement with a determinate form, and the form is recursive.

9.1 The sequence

Write the movement as

inherit → encounter → contradiction → generate → test → revise,

with the product of the last moment supplying the inheritance of the next pass, so that the form of the movement at $t + 1$ depends on the movement at t together with the conditions that have arrived in between.

The sequence is a reconstruction of a process and no procedure. Nothing here tells a party how to rethink, and §9.4 states why no such instruction follows.

9.2 The moments

Inheritance. Every act of rethinking begins from concepts, distinctions, problems and standards that the party did not produce. The inheritance is not an obstacle to be cleared before thought begins; it is the equipment with which the encounter is registered, and a party stripped of it would have no means of finding anything wanting. §3.9 and §4.1 recorded the ancestry of this point.

Encounter. The inherited equipment is brought to bear on material it was not formed to handle. §7 supplied the routes: new instruments producing observations the categories did not anticipate; changed conditions of employment bringing new phenomena within the scope of paid attention; changed practices generating cases the procedures mishandle; and, by way of §8.2, the confrontation of bodies of practice formed under different conditions.

Contradiction. The encounter yields the determinate failures described in §7.4: cases sorted both ways or neither, distinctions tracking no difference that matters, procedures conflicting on what the categories count as one case. §7.5 recorded that most such failures are absorbed and that the paper supplies no account of which discharge.

Generation. New conceptual relations are proposed. The moment is underdetermined by what precedes it: the contradiction establishes that the inherited categories fail and supplies no successor, and several incompatible successors are ordinarily consistent with the same failure. This paper offers no theory of the generation and treats it as the point at which the account is thinnest.

Testing. The proposal enters practice, scholarship, adjudication and administration, where it is applied to cases its author did not select, by parties whose situations differ from the author's. §8.5 established what this moment supplies epistemically: application under conditions that differ is the variation across which invariance becomes evidence.

Revision. The proposal's own limitations become visible under conditions that arrive later, and the movement recurs. §8.3 established that the recurrence is not guaranteed to improve matters, since the same conditions that carry a proposal to a wider test can also dismantle the practices through which it was assessable.

9.3 Ancestors of the form

The recursive form is not this paper's discovery and the debts are stated together.

Mao's *On Practice* [Mao, 1937] states the cycle and its endlessness, and §4.6 conceded it. Dewey's inquiry [Dewey, 1938] makes warranted assertibility the product of a process that resumes whenever the situation it settled becomes unsettled again. Collingwood [Collingwood, 1940] supplies the inheritance moment with the greatest precision, since on his account what an inquirer can consider is fixed by the questions available, and the questions rest on presuppositions taken over from a predecessor. Gadamer [Gadamer, 1975] makes the same point for the transmission of texts and treats the inherited prejudgement as the condition of understanding. Lakatos [Lakatos, 1970] and Laudan [Laudan, 1984] reconstruct the sequence over programmes and traditions, and §5.12 recorded that Laudan alone extends the historicity to the standards and aims themselves.

What this paper adds to the form is stated in two parts. The moments are given material conditions, so that each is a claim a historian could contest, and §7 supplied them. And the paper declines the ascent that Mao's and Dewey's versions carry, on the grounds of §8.4.

9.4 What the recursion does not supply

Three things are withheld, and withholding them is what keeps the reconstruction honest.

The sequence supplies no method. A party who knows the form is no better placed to perform it, since the encounter must be undergone and cannot be arranged by a party who does not yet possess the conditions under which it would occur.

The sequence supplies no criterion for when a revision is due. §7.5 established that the contradiction which discharges is not distinguished from the many absorbed, and no vantage point inside the practice reveals which case is in hand.

The sequence supplies no guarantee that it continues. The recurrence depends on the maintenance of the conditions under which encounter, testing and revision can occur, and §8.3 established that such maintenance fails regularly and is sometimes made to fail. This is the observation Part IV takes up.

10 Revisability and the Standards by Which It Is Judged

10.1 The requirement

Claim 10.1. *A framework holding that the conditions of recognition are historically produced cannot exempt its own position from that condition. Revisability belongs to the structure of any claim so grounded, and is no optional supplement to it.*

The argument is short and old. A framework asserting that inherited categories were formed under conditions their holders could not survey asserts something that applies to categories formed under present conditions, since nothing in the assertion turns on the date. To claim the exemption would require a reason for treating the present's conditions as transparent to those inside them, and §6 supplied the ground for denying that any party is so placed.

§5.10 recorded Mannheim [Mannheim, 1936] as the ancestor of the difficulty in the form it takes here, and this paper claims no priority over the observation.

What Claim 10.1 asserts is a structural feature and no attitude. A party may be confident of a claim, may act on it, and may resist objections to it, while holding that the claim is subject to revision under conditions that do not yet obtain. Revisability in this sense is compatible with conviction, and §10.3 distinguishes the forms revision can take.

10.2 The standards of appraisal and their own historicity

10.2.1 The objection

Claim 10.1 generates a difficulty that the paper must state at full strength before saying anything about it.

The paper holds that the conditions of recognition are historically produced, and §6.4 included among those conditions the conceptual apparatus and the practices of testing. §5.5 recorded that the epistemic virtues governing appraisal have themselves a documented history [Daston and Galison, 2007], and §5.12 recorded the same result for standards and aims [Laudan, 1984]. The paper nonetheless holds that some accounts are better supported than others; it holds, for instance, that its own account of the conditions of recognition is better supported than an account denying that conditions matter.

That judgement is made by criteria standing inside history. The relativism the paper declined in §1 therefore returns one level above the point of declination: what was excluded at the level of first-order claims reappears at the level of the standards by which first-order claims are appraised. Saying that a claim is better supported now says that it meets standards which are themselves products of a configuration of conditions, and supplies no reason to prefer those standards to others.

Three resolutions of this difficulty are available. The paper adjudicates among none of them, and §10.2.5 states why the refusal is a commitment.

10.2.2 Comparison secured through the object

The first resolution holds that comparison is secured by the object of inquiry. Because the structures inquiry is about do not change when knowledge of them changes, competing accounts are accounts of the same thing, and their comparison has a subject matter. Judgemental rationality follows: that criteria are historically formed leaves rational preference among accounts available, since what the accounts are answerable to lies outside the criteria [Bhaskar, 1975].

The material conditions of this resolution are specific. It was formulated in a philosophy of science whose paradigm act of knowing was experimental intervention on a mechanism, in a period when state-funded laboratory science had made such intervention an ordinary and well-financed practice, and when the failure of positivist reconstructions of that practice had created a demand for an alternative account of what experimenters do. Where the exemplary case of knowing is the manipulation of a mechanism that operates whether or not anyone

describes it, distinguishing the object from the knowledge of it is the natural repair, and the apparatus supplies the intuition that the argument then formalises.

Its limitations are two. The transcendental argument establishes that the object must be independent, and it yields no ranking among competing accounts of that object; the resolution secures that comparison is possible and supplies no criterion of comparison. And its paradigm case is furthest from the objects at issue in this paper, a difficulty its own author records for social objects [Bhaskar, 1979] and which §6.3 addressed at length.

10.2.3 Comparison secured through convergence

The second resolution holds that the ordering is supplied by the destination. Accounts are better or worse according to their position on a path whose terminus is the opinion inquiry would reach if pursued without limit [Peirce, 1878], so the historicity of present criteria is consistent with a real ordering among present positions.

Its material conditions are those of the nineteenth-century organisation of science: the industrial and state laboratory, the geodetic and statistical survey as large collective undertakings, the journal and the learned society, and the salaried scientific career. Where inquiry has visibly become a collective institution that corrects itself across generations, the limit of that process is a natural object of appeal, and the resolution generalises a directly observable feature of the author's own working life. The paper in which the formulation appears carries his position in the Coast Survey on its byline.

Its limitations are two, and one of them this paper has already argued. Claim 8.1 denies the convergence the resolution requires, on the ground that the conditions sustaining inquiry are maintained conditions whose maintenance fails. And the resolution relocates finality into the future, preserving the structure that §1 diagnosed and moving it from the present to the end of inquiry.

10.2.4 Comparison protected through inexpressibility

The third resolution holds that the criterion of adequacy resists the reduction that the objection requires. The objection treats standards as a specifiable set against which candidates are scored, and infers that a set formed under conditions has no claim over a set formed under others. Where the criterion of adequacy cannot be exhaustively stated, the inference fails at its first step, since there is no set to relativise.

Its material conditions are recent and are the conditions of this paper's own moment. In a period when audit, ranking, indexing and management by declared objective have become the ordinary form of institutional life, the degradation of a stated criterion into a measurable proxy is a matter of common experience, and what cannot be stated as a criterion becomes visible as a distinct category. A resolution of this shape is formulable where optimisation against stated criteria is materially widespread, and is difficult to formulate where it is not.

Its limitations are three and they are severe. Immunity from relativisation is purchased with the loss of operational content, so a criterion that cannot be stated cannot be shown to have been misapplied, which is a charge of unfalsifiability the resolution cannot answer on

its own terms. It offers no account of how parties who disagree about a case are to proceed. And it is itself a position formulated under determinate conditions, so it is a candidate for supersession on exactly the terms it uses against its rivals.

10.2.5 *What the joint analysis yields*

Three results follow from treating the resolutions together, and no fourth result adjudicates among them.

The first is that each resolution is intelligible as the answer available under its conditions. The account of §6 predicts that answers to a difficulty are formed with the materials a period supplies, and the three resolutions exhibit it: an experimental science produced the argument from the independence of the object, an institutionalised collective inquiry produced the argument from convergence, and a regime of measurement produced the argument from what measurement cannot capture. The paper's thesis is here applied to the paper's own difficulty, which is the strongest form in which such a thesis can be advanced.

The second is that the three are not competitors at the level of function. The first establishes that comparison has a subject matter, the second supplies a direction, and the third protects a criterion from capture by the very standards it is meant to govern. A future resolution adequate to the difficulty may require all three roles filled, and would then stand to the present three as a successor and not as a victor.

The third concerns the refusal itself.

Claim 10.2. *Where several resolutions of a difficulty are each intelligible under the conditions that produced them, a framework committed to the historicity of answers states those conditions and declines the ranking. The declination is a commitment of the framework and no suspension of judgement.*

The ground of Claim 10.2 is the observation with which the paper began. To adjudicate here would be to select one resolution, formed under conditions the paper has just described, and to install it in the position from which the others are assessed, which is the movement of §1 performed by a paper written against it. The difficulty of §10.2.1 is a difficulty about the historicity of standards; a paper that settled it by an exercise of the standards under examination would have answered nothing.

10.2.6 *What remains undefeated*

The paper's position on relativism should be stated without overstatement. The objection of §10.2.1 is historicised and is not answered. What the paper asserts is that comparative judgements are unavoidable in the conduct of inquiry, that their warrant is historically formed, and that the demand for a warrant standing outside history is itself a demand formed under particular conditions and answerable to the same treatment.

A reader may find this insufficient, and the paper records the finding as a limit in §16 in place of concealing it. One consequence is stated here because §15 will use it: a paper that

declines to adjudicate among resolutions of the difficulty cannot supply a procedure for determining whether a structure remains sufficiently revisable, since any such procedure would embed one of the resolutions.

10.3 Error and incompleteness

Revision takes at least two forms and the difference matters for what §12 asks of institutions.

An earlier claim may be revised because it was false. The relation asserted did not obtain, and the later position replaces it.

An earlier claim may also be revised because it was incomplete. The relation asserted obtained, and obtained under conditions the earlier party could not specify, or as one case of a wider relation the earlier party had no occasion to consider. Here the later position stands to the earlier as an extension, and the earlier claim survives within it with its scope made explicit.

The distinction is not always available at the moment of revision, and the paper claims no criterion for drawing it. What it claims is that the second form is common enough that a practice treating every supersession as a demonstration of error will discard material it needs. §8.5 supplies the reason: an earlier recognition produced under conditions differing from the present ones is precisely an occasion of the kind whose invariance carries evidential weight, and its record retains that value whether or not the claim made from it was complete.

11 Preserving the Conditions of Future Recognition

11.1 The object of the argument

The paper now turns from what has been established to what follows for a party acting in the present.

The materials are three. Claim 6.1 holds that relations obtain which present conditions do not permit any party to recognise, and §6.5 holds that no party can survey how many or which. Claim 8.1 holds that the conditions of recognition are maintained conditions whose maintenance fails, so that the trajectory of what can be recognised includes losses as well as gains. Claim 8.2 holds that evidence bearing on a relation accrues from occasions of recognition produced under conditions that differ, so that the plurality of inquiring situations is an epistemic condition and no courtesy.

Consider a party choosing between two courses. The first would destroy, irreversibly and within any horizon the parties concerned can act on, some part of the conditions under which recognition could later occur: an archive, a body of trained practice, a population carrying a body of knowledge, an ecosystem that constitutes the only instance of what it instantiates, an institution through which a claim could be contested, a language, a line of inquiry with no other pursuer. The second leaves those conditions in place. Neither course is assumed to be otherwise superior, and the party is assumed to have ordinary reasons for the first.

11.2 The asymmetry

Claim 11.1. *A course that leaves the conditions of future recognition in place retains the availability of the foreclosing course; a course that forecloses them does not retain the availability of preservation. The two courses therefore stand in an asymmetry that holds whatever value is assigned to what would be foreclosed.*

The argument proceeds in four steps and computes no quantity.

First, the party cannot assess what the foreclosure costs. What is foreclosed is the capacity for a recognition that present conditions do not support, and §6.5 established that no census of the unrecognised is available from inside the conditions being described. The cost is therefore unassessable at the moment of decision, and the unassessability follows from the paper's own account and is no appeal to general uncertainty.

Second, the foreclosure destroys the occasion on which the assessment could have been made. This is the feature that distinguishes the case from ordinary decision under ignorance. Ordinarily a party acts without knowing the value of what it forgoes, and the value becomes apparent later. Here the course removes the conditions under which the later apparency could arise, so the party will not learn what it destroyed, and neither will anyone else. The absence of subsequent evidence of loss carries no evidential weight whatever, since the same course removed the means of producing such evidence.

Third, the courses differ in what they leave available. A party that preserves may foreclose later, under conditions that may include a better understanding of what the foreclosure costs. A party that forecloses cannot preserve later. The set of courses available at $t + 1$ is therefore larger under preservation, and the difference is a structural feature of the pair and no assessment of either.

Fourth, the asymmetry survives disagreement about value. Nothing in the three steps assigns a magnitude to what would be foreclosed, and the argument therefore runs identically for parties who differ about how much any of it matters. This is what makes the claim available where the affected parties are heterogeneous, which is the ordinary case.

Two boundaries belong with the claim. It concerns irreversibility relative to available means and to a horizon fixed by the parties concerned, so irreversibility is a factual matter admitting dispute and no metaphysical property, and the horizon must be stated whenever the claim is applied. And the reversibility of an act is distinct from the reversibility of the foreclosure it produces: a decision to defund an institution can be reversed while the dispersal of the trained population it employed cannot.

11.3 The claim

Claim 11.2. *Where a course available to a party would irreversibly foreclose conditions under which relations presently unrecognised could later be recognised, the burden of justification for adopting that course lies with the party adopting it. Where no available course would produce such a foreclosure, the competing claims remain plural and fall to ordinary settlement.*

Four features of Claim 11.2 are load-bearing.

The claim allocates a burden and imposes no bar. The party may proceed, and proceeds having given reasons. This is what answers the objection that a principle triggered under conditions of ignorance speaks against every available option [Sunstein, 2005]: a burden leaves the question decidable even where it falls on more than one course, since burdens can be discharged and prohibitions cannot both be obeyed.

The claim is triggered by a structural property and by no measure of value. §11.2 established that the asymmetry holds whatever value is assigned, which keeps the claim non-circular within a framework whose whole subject is the historicity of assessment.

The claim is stated over courses, and a course includes declining to act. This follows from the asymmetry and departs from the shape such principles ordinarily take. Where a party's continued inaction is itself destroying the conditions of future recognition, the second step of §11.2 applies to the inaction in exactly the same terms, and the burden falls on the party declining to act.

The claim is per foreclosure. An arrangement that satisfies it for many conditions of recognition and fails for one has failed, and no surplus elsewhere repairs it. §15 derives the refusal of a maximand from this feature.

11.4 The burden and its discharge

The burden is argumentative. A party subject to it states what would be foreclosed, states the horizon over which the foreclosure is irreversible, and gives reasons sufficient to warrant proceeding. The paper supplies no account of which reasons suffice, and §2.4 recorded the restriction: the claim allocates and does not discharge, and it is compatible with a great many foreclosures being justified.

One difficulty attaches to the discharge and should be stated where it arises. The reasons for proceeding are ordinarily supported by evidence that can be produced, since comparable courses carried out elsewhere leave inspectable products. The reasons against are supported by evidence about what a preserved capacity would have yielded, and that evidence concerns a course of events which the successful discharge of the burden prevents. The asymmetry of available evidence therefore runs in the same direction on every occasion, and a burden discharged on most occasions becomes a formality. The paper records this as the principal practical weakness of Claim 11.2, and §12 asks what an institution would have to be like for the burden to remain live.

11.5 The inquiry preserving its own conditions

Claim 11.2 has a feature that distinguishes it from structurally similar principles and that follows from what is being preserved.

Where the foreclosed capacity belongs to a third party, the party bearing the burden and the party benefiting are distinct, and the claim allocates across an interested divide. Here the foreclosed capacity is the capacity of inquiry to recognise, and the party bearing the burden ordinarily belongs to the same inquiry whose future capacity is at stake. What is preserved is

not another's interest; it is the condition under which the preserving party's own successors, and the preserving party itself at a later date, could find out whether the preserving party was right.

Two consequences follow. The claim is available to a party as a reason of its own and not solely as a duty owed outward, which is a different and ordinarily stronger position from which to ask for compliance. And the claim's failure has a distinctive shape: a party that forecloses the conditions of its own correction retains every appearance of being correct, since the evidence that would have told against it is what the foreclosure removed. This is the structure of §11.4's difficulty stated at the level of a whole inquiry, and it is why §12 turns from judgements to structures.

11.6 Positions reaching this neighbourhood from other premises

Several positions come close to Claim 11.2 from premises this paper does not use, and the differences are what §5.13 left the paper to establish.

Jonas [Jonas, 1984] formulates an imperative requiring that the effects of present action be compatible with the permanence of genuine human life, and defends a heuristic giving the adverse prognosis precedence over the favourable one, on the ground that technological power has become cumulative and irreversible in a way earlier ethics never had to address. The three elements are conceded without qualification. The difference lies in what is preserved and in the ground. Jonas preserves the existence and the authenticity of future human life, and grounds the imperative in an account of value which he acknowledges he posits. Claim 11.2 preserves the conditions of recognition, and grounds the allocation in an asymmetry that assigns no value to what is preserved and holds for parties who disagree about its worth.

A second route to the same ground runs through the longtermist literature. Bostrom [Bostrom, 2002] defines an existential risk in terms of the permanent curtailment of potential; Ord [Ord, 2020] and MacAskill [MacAskill, 2022] argue against premature and irreversible settlement of questions whose answers we are poorly placed to give, and for a period of reflection before such settlement. The structural resemblance is real and the ground differs. Their premise is moral uncertainty, that we do not yet know what is of value; the premise here is the historicity of recognisability, that the conditions under which relations become recognisable are produced and variable. The two premises are independent: a party certain of its values may still lack the conditions under which some relations could be recognised, and Claim 11.2 applies to it unchanged.

The literature on the division of cognitive labour supplies a partial epistemic precedent, and its caveat is as important as its support. Kitcher [Kitcher, 1990] shows that a community gains from distributing effort across rival approaches, and Zollman [Zollman, 2010] shows that structures preserving diversity can outperform structures that transmit efficiently, because they delay premature convergence. *That literature treats indefinitely maintained diversity as a failure mode*, on the ground that a community which never converges never arrives, and the benefit it identifies is the benefit of transience. The support it lends is therefore conditional on the convergence Claim 8.1 denies. Where no convergence is guaranteed, the argument for

transience loses its ground, and preserved plurality is valued on the different footing supplied by Claim 8.2, as the source of the variation across which invariance becomes evidence.

Two further neighbours are noted for completeness. The economic treatment of option value under irreversibility [Arrow and Fisher, 1974] establishes the formal core of §11.2's third step for a decision maker choosing on its own account, and does so for an asset priced in the units of the decision, which supplies no allocation of burden between parties. And intergenerational equity [Brown Weiss, 1989] requires that patrimony be transmitted undiminished, while Parfit's non-identity problem [Parfit, 1984] complicates any duty owed to determinate future persons; Claim 11.2 avoids that complication, since it is stated over the conditions of an inquiry and requires no determinate future beneficiary.

11.7 What the claim does not settle

Three difficulties remain and are recorded here in place of being deferred.

The claim fires on a property whose instantiation is contestable exactly where the stakes are highest, so a party wishing to avoid the burden may contest whether the foreclosure is irreversible in place of discharging it. The paper supplies no method for determining irreversibility, and §16 records the omission.

The claim addresses a party facing a course, and foreclosures frequently proceed by accumulation, through many small courses no one of which forecloses anything. Where that is the structure, the claim is silent on every individual decision while the aggregate forecloses, and the paper offers no repair.

The claim allocates a burden and, by §11.4, the burden may be discharged as a formality. §12 asks what would have to be true of an institution for it to remain live, and reaches a conditional answer.

12 From Revisable Judgements to Revisable Structures

12.1 The distance between a judgement and its institution

Claim 10.1 established that revisability belongs to the structure of a historically grounded claim. The requirement is ordinarily read as a requirement on persons: that an inquirer hold claims open to correction. Read that way it is insufficient, and the insufficiency is structural.

A judgement made at t is ordinarily embodied. It becomes a rule, a classification, a standard of admissible evidence, a schedule of what is funded, a category in a record system, a criterion of professional competence. The embodiment outlasts the judgement. The party who formed it may abandon it, the community may abandon it, and the institution continues to apply what was embodied, since applying it requires no one to hold the judgement and abandoning it requires a further act that nobody is charged with performing. The judgement disappears and the structure reproduces its effects.

This is the ordinary case and no pathology. An institution that reconsidered its rules whenever a member's mind changed would perform no institutional work at all, and the durability that produces the difficulty is the same durability that makes the institution use-

ful. What follows is that the requirement of Claim 10.1 must be stated over structures, since stating it over persons leaves the difficulty untouched.

12.2 How a structure detaches from what justified it

The mechanism is the one §8.3 described under the heading of absorption, applied to an institution's own rules.

A rule is adopted because a judgement warranted it under conditions that made the judgement assessable. The rule is then administered by parties who apply it competently without needing to reconstruct the warrant, which is precisely the efficiency the rule was adopted for. Over time the practices through which the warrant could be assessed fall away, since nobody's work requires them: the cases that would test the rule are handled by the rule, the records that would support reconstruction cease to be maintained because no live use is made of them, and the personnel trained in the antecedent practice disperse. The rule survives in force with its warrant no longer recoverable, and a later party seeking to revise it faces a structure that can be criticised and cannot be assessed.

Two features of this process matter for what follows. It requires no interest in preserving the rule, and proceeds through the ordinary economies of administration. And it is a foreclosure of the kind Claim 11.2 is stated over, since what is lost is the condition under which the rule's adequacy could be recognised.

12.3 What a structure would have to maintain

§10.2.6 established that this paper cannot supply a procedure for determining whether a structure remains sufficiently revisable, since any such procedure would embed one of the resolutions the paper declined to rank. What can be stated is weaker and follows from Claim 8.2: the conditions under which a structure's own adequacy could be recognised are the conditions under which occasions of recognition differing from the structure's own could be produced and brought to bear on it.

Three such conditions can be named.

Differing inquiring situations. Claim 8.2 requires that the variation be genuine. A structure assessed repeatedly by parties trained in the same practices, employed on the same terms, applying the same criteria, has been assessed once and recorded the result several times. What supplies evidential variation is the presence of parties whose situations differ materially, which §7.2 established is a matter of who is employed to inquire and on what terms.

Retrievable records, including superseded ones. §7.3 established that a result rendered unfindable is unavailable in the same way as one never established, and §10.3 established that a superseded claim retains evidential value, since it is an occasion of recognition produced under conditions differing from the present ones. A structure that discards the record of what it has superseded destroys exactly the material Claim 8.2 identifies as evidentially load-bearing.

Forums in which the structure can be contested with consequence. §6.1 counted contestation among the four capacities composing recognition, and a criticism that reaches no forum whose judgement carries effect leaves the structure unassessed. Longino's result [Longino, 1990] is

the developed form of this condition, and it is a condition on the distribution of authority within a community and no exhortation to open-mindedness.

12.4 Why the familiar mechanisms are insufficient

Institutions that take revisability seriously ordinarily adopt mechanisms for it: periodic review, sunset provisions, amendment procedures, version histories, standing bodies charged with reconsideration. Each addresses part of the difficulty and none addresses it fully, and the reason is worth stating precisely, since it is the same reason that made §11.4's difficulty severe.

A mechanism of review is administered by the institution under review, at intervals it sets, according to criteria it holds, using the records it has maintained. Where §12.2 has already operated, the review is conducted by parties for whom the rule's warrant is unrecoverable, and its ordinary output is the finding that the rule remains in force. The mechanism produces the form of an assessment and the substance of a ratification, and it does so without anyone acting in bad faith.

This is the point at which the difficulty turns on the paper's own thesis, and the reflexive application should be stated openly. A requirement of revisability, adopted as an institutional criterion, becomes a stated criterion administered against a measure. §10.2.4 recorded what happens to stated criteria under conditions of measurement, and nothing exempts this one. An institution can satisfy a revisability requirement completely, by holding reviews, publishing versions and maintaining an amendment procedure, while the three conditions of §12.3 fail throughout, since none of the three is what the requirement measures.

The paper draws no procedural conclusion from this, in keeping with §10.2.6. What it draws is a diagnostic one: where the three conditions of §12.3 hold, the mechanisms of this subsection do useful work, and where those conditions have lapsed, the mechanisms document their own lapse. The mechanisms are therefore worth adopting and supply no evidence about the thing they were adopted to secure.

12.5 The formality difficulty, answered conditionally

§11.4 recorded that the burden allocated by Claim 11.2 may be discharged as a formality, since the evidence for proceeding can be produced and the evidence against concerns what the successful discharge prevents. This section supplies as much of an answer as the paper has.

The asymmetry of available evidence is a feature of any single occasion of discharge, and it is not a feature of a field in which the three conditions of §12.3 hold. Where parties whose situations differ materially can raise the question, where the record of what was foreclosed and what was said at the time is retrievable, and where a forum exists whose judgement carries effect, the reasons against a foreclosure can be supported by the accumulated record of comparable foreclosures whose consequences did become apparent. This does not equalise the evidence, and it removes the guarantee that the asymmetry runs the same direction on every occasion.

The answer is conditional in the strict sense: it holds where those conditions hold, and Claim 11.2 was stated in part because they often do not. §16 records that this leaves the difficulty of §11.4 substantially in place.

13 The Position of the Party Proposing a Revision

13.1 The authority acquired through criticism

A party that criticises an inherited framework acquires a position, and the position carries powers. It permits the classification of prior work as naive, dated or insufficiently reflective; it establishes the terms in which successors must situate themselves; and it converts the labour of predecessors into material for a narrative in which the critic supplies the turning point. Foucault's account of the procedures by which statements are made to count [Foucault, 1980] applies to critical statements with no modification, and the critical register carries no exemption.

The paper is subject to this and its own procedure has been to concede as much as possible: Part II states what each of the paper's central claims owes to a prior owner, and Claims 5.1 and 11.2 are the residue that remained. Concession is a partial protection and no answer, since the selection of whom to concede and in what terms is itself an exercise of the position.

13.2 The demand that the account apply to itself

§4.4 recorded that the reflexive demand is fully developed elsewhere and that the paper claims no originality in raising it. Three of its forms bear here.

Bloor's fourth requirement [Bloor, 1976] holds that a sociology of knowledge must apply its patterns of explanation to itself. The requirement transfers directly: an account holding that positions are formed under material conditions must give the material conditions of its own formation, and §13.5 does so.

Ashmore's result [Ashmore, 1989] holds that self-application generates a regress, since the account of the account is itself an account requiring the same treatment. The paper accepts the regress and declines to arrest it. What follows practically is that the paper's self-application in §13.5 is one step and no foundation, and that the step is worth taking because it is informative about this paper and not because it terminates anything.

Luhmann's blind spot [Luhmann, 1990] is the form that bears hardest. Every observation employs a distinction it cannot observe while employing it, so this paper's account of the conditions of recognition is conducted with distinctions whose own conditions the paper does not survey. The result is structural and no amount of care removes it. The paper accepts it and notes the one consolation available: the result is a further instance of Claim 6.1, applied to the paper, and its truth is therefore consistent with the paper's own thesis in a way that would not hold for a framework claiming a surveying position.

13.3 Why the exemption is not taken

§5.10 recorded Mannheim's two answers to the difficulty. Relationism, on which a body of thought is bound to a position and valid within it, is the distinction §10 attempted, and §10.2.6 recorded that the attempt leaves the objection historicised and unanswered. The second answer, which locates a stratum whose social position is sufficiently unattached to permit synthesis, this paper declines.

The ground for declining is internal to the paper. §7.2 established that the direction of inquiry is governed by employment, funding and disciplinary formation, and that the composition of the inquiring population governs what is salient. A stratum described as unattached is a stratum whose attachments have gone unexamined, and the description exempts by stipulation what the paper's own account says must be exhibited. The paper therefore claims no position of reduced attachment, and §13.5 states its attachments so far as it can identify them.

13.4 What separates this position from relativism

The hostile statement of the objection is that a position holding knowledge to be conditioned by its circumstances of production undercuts itself, since the holding is so conditioned; the case is put in that form by Boghossian [Boghossian, 2006], who argues that constructivist accounts of truth and justification either refute themselves or collapse into regress.

The paper's separation from the position under attack is Claim 6.1, and it is worth stating in one sentence. The paper historicises the conditions under which relations become recognisable, and holds that the relations obtain independently of those conditions; it therefore asserts nothing that makes truth a product of circumstance, and the self-undercutting argument has no purchase on the claim it would need to attack. What is conditioned, on this account, is which relations a party is positioned to recognise, and that thesis applied to itself yields the consequence that this paper is positioned to recognise some things and not others, which is a limitation and no contradiction.

Two things this does not accomplish are recorded. It does not answer the difficulty of §10.2.1, which concerns the standards of appraisal and not the truth of first-order claims, and §10.2.6 stated the paper's position there. And it does not establish that the paper's account of the conditions of recognition is correct; it establishes that the account's being historically conditioned supplies no argument against it.

13.5 The conditions of this paper

The paper owes an account of its own conditions of production, on the same terms it has applied to every position in Part II. Four are identifiable, and the identification is made from inside and is therefore partial in the way §13.2 described.

Foreclosure at a scale that makes the question practical. The paper's central normative claim concerns the irreversible destruction of conditions of recognition. Such a claim is formulable at any date and becomes pressing when foreclosures of that kind are numerous, large and dated: extinctions that remove the only instance of what they instantiate, languages that pass

out of use with their last speakers, archives destroyed in war, bodies of practice dispersed when the institutions employing them are closed. A period in which these are ordinary supplies both the occasion for the claim and the examples by which it is made intelligible.

Infrastructures that make revision visible. Versioning, revision histories, distributed repositories and the technical cheapness of preserving superseded material have made the difference between a finished product and a development history an ordinary feature of working life. §10.3's distinction between error and incompleteness, and §12.3's condition on retrievable records, are formulable with a clarity that a period whose scholarly product was the printed final version would have found harder to reach.

Measurement as the ambient form of institutional life. §10.2.4 recorded that a resolution appealing to what cannot be stated as a criterion is formulable where optimisation against stated criteria is materially widespread. The same condition supplies §12.4's argument that a revisability requirement is satisfiable while the conditions it was meant to secure fail. Both belong to a period of audit, ranking and management by declared objective.

A distributed and partly anonymous production of knowledge. The paper's insistence that recognition is a capacity of a field and not of a person, and its treatment of inquiring situations as the unit that must differ, belong to a period in which the production of knowledge visibly involves many parties whose contributions are unequally recorded.

What follows from stating these is limited and should not be overstated. The statement does not establish that the paper's claims are true, and it does not establish that they are false. It establishes that the claims were formulable under these conditions and that a reader may ask what a differently conditioned party would have been positioned to see, which is the question the paper asks of everyone else and has no ground for refusing about itself.

14 Consequences for Scholarly Practice

The account has consequences for the conduct of scholarship, and they are stated here compactly. Each follows from a result already established, and the design of the infrastructure that would carry them is a separate undertaking which this paper does not attempt; what the paper supplies is the warrant such a design would presuppose.

Work may be presented as a historically situated contribution. Claim 10.1 holds that revisability belongs to the structure of a historically grounded claim, and a form of publication that marks a contribution as preliminary states in its form what the claim states in its content. The practice costs a paper some authority and buys the accuracy of its self-description.

Priority may be recorded without conferring ownership over what follows. A record that a party first stated something is a historical fact about the sequence, and §9 established that the sequence continues through parties whose conditions differ. Attribution registers the first; it settles nothing about who may develop it, and §8.5 supplies the reason for wanting development by parties whose situations differ materially.

Development may be preserved in place of being concealed behind a finished product. §10.3 established that a superseded claim retains evidential value, since it is an occasion of recognition produced under conditions differing from the present ones, and §12.3 established

that a structure discarding such records destroys what Claim 8.2 identifies as load-bearing. Version histories and retained drafts are the ordinary technical form of this.

Failures may be recorded. Abandoned frameworks, negative results and corrections are occasions of recognition, and the argument of §10.3 applies to them without modification. A field that publishes only what succeeded has an incomplete record of the conditions under which its successes were produced.

Communities may be organised so that independent development, disagreement, branching and recombination remain possible. §12.3 gives the condition and §8.5 gives the reason: the plurality of inquiring situations is what supplies the variation across which invariance becomes evidence, and it is an epistemic requirement and no courtesy extended to dissenters.

15 Positions Declined

Four positions the paper might have been expected to take are declined. Each declination follows from an established result, and each carries a cost that is stated with it.

A procedure for determining sufficient revisability. §10.2.6 established that a paper declining to rank the three resolutions of §10.2 cannot supply such a procedure, since any procedure would embed one of them. The cost is that §12 reaches a diagnostic conclusion where an institutional designer needs an operational one, and that a question the paper itself raises goes unanswered.

A demarcation between relations that emerge historically and relations that do not. Some relations may be recognisable under a very wide range of conditions, and nothing in the paper's argument requires a boundary to be drawn. The cost is that the scope of Claim 6.1's practical significance is left open, and a reader who believes the recognisable-under-most-conditions class is very large will judge the paper's consequences correspondingly small.

A maximand over preserved capacity for future recognition. A quantity defined over a field containing many conditions of recognition takes a single value, therefore aggregates, therefore permits substitution: one foreclosure accepted for two preservations elsewhere. Claim 11.2 is stated per foreclosure and withholds exactly that trade. The result holds under every substitution, including a quantity defined over foreclosures themselves, since minimising their number recommends one in place of two and the claim declines to recommend it. The cost is that the paper offers a party facing several courses no way of ordering them, and §11.7 recorded the related silence on accumulation.

A general requirement of reversibility. Historical openness understood as a bar on irreversible action would be unmeetable, since §11.3 established that a course includes declining to act and that inaction forecloses on many occasions. Claim 11.2 allocates a burden and imposes no bar for this reason. The cost is that the paper's normative content is thinner than its premises might have supported, and a reader wanting a prohibition will find an allocation of argumentative burden a weak result.

16 Limits

16.1 Defects internal to the account

The paper's conditions of recognition are individuated by no criterion. §5.4 recorded that Kusch's objection to Hacking transfers here in modified form, and the paper's answer is partial: its conditions are material entities and arrangements with dates and locations, so their individuation is a historical question with historical evidence bearing on it. This falls short of a criterion, and a reader may hold that without one the account's claims about a configuration changing are unfalsifiable.

The paper supplies no method for determining irreversibility, and Claim 11.2 fires on that property. §11.7 recorded the consequence: a party wishing to avoid the burden may contest the determination in place of discharging it.

Recognition is treated as a composite of four capacities at a coarse grain. §6.1 stated the four and §2.3 recorded the coarseness. The capacities have different conditions and different dynamics, and an account distinguishing them would say more than this one does.

The generation of new conceptual relations receives no treatment. §9.2 named it as the point at which the account is thinnest: a contradiction establishes that inherited categories fail and supplies no successor, and this paper offers no account of where successors come from.

The selection among contradictions receives no treatment. §7.5 stated the gap in full and named what an account would require. No argument in Part IV depends on closing it, and §7's explanatory reach is correspondingly limited.

16.2 Positions the paper would fall back to

Two retreats are recorded so that a reader can locate what survives if a contested step fails.

If the argument of §6.3 fails for social relations, the paper falls back to a restricted form of Claim 6.1: the independence clause asserted without qualification for relations that are not constituted by their participants' conceptions, and asserted as a defeasible extension elsewhere. Part IV then applies with the same restriction, and the paper's reach narrows without its structure changing.

If a reader refuses the independence clause altogether, §§3–5 and the whole of §§7–9 survive as an account of the historical production of the conditions of recognition, and Part IV does not. §6.2 recorded that the clause is load-bearing for the normative argument, and the dependency is stated here so that the refusal can be made cleanly.

16.3 Objections that remain unanswered

The relativism objection is historicised and not answered. §10.2.6 stated the paper's position, and a reader may hold that a framework which declines to rank the resolutions of its central difficulty has left that difficulty where it found it.

Foreclosure by accumulation is untreated. Claim 11.2 addresses a party facing a course, and where many small courses foreclose in aggregate while none forecloses alone, the claim

is silent on every decision and the aggregate proceeds. The paper offers no repair.

The discharge of the burden may become a formality. §11.4 established the evidential asymmetry that produces this, and §12.5 answered it conditionally on three conditions that frequently fail. The difficulty stands substantially where §11.4 left it.

The paper's own observation carries a blind spot. §13.2 accepted Luhmann's result as structural. The paper's distinctions have conditions that the paper does not survey, and the acceptance is not a repair.

The claim of originality is bounded by a survey. Claim 5.1 is a claim about the literature examined in §§3 and 5, and §5.13 recorded that a counter-example would narrow the paper's contribution to a synthesis. The claim is offered in that form and invites the counter-example.

17 Closing

The account can be gathered in a few sentences.

The conditions under which a relation can be observed, articulated, tested and contested are produced through instruments, institutions, infrastructures and the organisation of inquiring labour. Those conditions vary historically and are unevenly distributed at any moment. The relation obtains independently of them, so that a failure of recognition is a fact about the parties attempting it. The trajectory of what can be recognised includes losses as well as gains, since the conditions require maintenance and the maintenance fails and is sometimes made to fail. Rethinking recurs because encounters under changed conditions exhaust inherited categories, and it must recur because a single configuration of conditions supplies evidence of only one kind.

From this the paper drew a consequence for present conduct. A party whose course would irreversibly foreclose the conditions of a future recognition destroys something whose value it cannot assess, and destroys with it the occasion on which the assessment could have been made. The burden of justification lies with that party. The burden may be discharged, and the paper says nothing about which reasons discharge it.

The responsibility that follows for a party proposing a revision is therefore twofold. It is to generate the best understanding the present conditions permit, and to leave in place the conditions under which that understanding can later be found wanting. The two are not in tension: §8.5 established that a claim which has survived assessment under conditions differing from those of its formation is supported by evidence that no single configuration could have supplied, so the party who preserves the conditions of its own correction is the party whose claims can come to be well supported.

This is what the paper has meant throughout by truth emerging historically. Truth is not made by the sequence and is not waiting at its end. History supplies repeated occasions of recognition produced under differing material conditions, and what we name truth is what holds across them.

Rethinking, on this account, is neither the announcement of a final answer nor the exchange of one framework for another. It is participation in a process that has not finished, conducted by parties who will be superseded, and its discipline consists in leaving that pro-

cess able to continue.

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