

Terminology Adoption Authority

A Preliminary Study Of Institutional Vocabulary Decisions

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Abstract

Institutional adoption of a term can change which formulations receive recognition, assessment or practical effect. This preliminary study examines the authority to make that bounded decision and the conditions of subsequent challenge. It distinguishes useful coordination, relevant expertise and successful uptake from the further reasons needed to justify consequential adoption. Within the Generative Relational framework, an adoption arrangement is treated as a history-bearing configuration whose records and available operations can change through its own decisions. A finite review model establishes a conditional obstruction: operations that preserve a coarse record cannot recover a pertinent source distinction omitted by that record. An interpreted source-reading operation supplies a limited positive reopening witness. A nonlinear regional response model then compares pooling before assessment with pooling after assessment. It derives an exact three-site discrepancy, compatible block conditions and approximation bounds. An observable algebra clarifies the corresponding closure claims without linearizing the underlying dynamics. Literature on expertise, conceptual choice and language planning is compared with specified institutional naming procedures. The proposed normative implication is a proportionate route to substantive assessment, not a duty to accept every challenge or reverse an adopted term. The formal results concern declared representations; their institutional relevance requires separate interpretive, historical and normative warrants.

Keywords: terminology; institutional authority; adoption; contestation; nonlinear response; historical operators

Scope Note

This preliminary study concerns the authority to make a terminology decision consequential within a defined institutional activity. It examines the connection among a vocabulary's practical role, a decision-maker's mandate, the treatment of competing formulations and the conditions of subsequent challenge. The object is one adoption arrangement, rather than ownership of a language or a complete theory of legitimate standardization.

The Generative Relational framework supplies a language for historically formed configurations, selective manifestations, partial operations and changing conditions of further formation. Its earlier manuscripts already develop interpretive authority, normative closure, effective contestability and the distinction between a judgment and its implemented consequence. These are inherited arguments. The present study develops a bounded application and several conditional formal investigations.

The models examine which distinctions an institutional record retains, which operations can make a challenge assessable, and when local response followed by aggregation differs from prior normalization. A signed field coordinate represents a declared assessment channel. It is not a quantity of legitimate authority, linguistic competence or cultural worth. The mathematical results do not require an institution to accept every proposed term or give each participant a veto.

The literature and institutional examples retain their domain and version boundaries. A published procedure establishes an announced arrangement, not its successful implementation or normative adequacy. Constructed cases remain explicitly fictional. The source packet preserves reading scopes, verification records, reproducible calculations and the draft's unresolved research questions.

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Status. This discussion draft presents an evolving inquiry. The definitions, translations, formal constructions, empirical interpretations, and conclusions remain open to criticism and author review. It investigates the authority to make a terminology decision consequential within a defined institutional activity and the conditions of subsequent challenge. Its formal models are conditional representations. Institutional source documents establish specified procedures rather than causal effects or normative legitimacy.

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Statement On The Use Of Language Models. The author selected the research direction, supplied prior manuscripts and a reference exposition, and requested consistency with the Generative Relational research programme. AI-assisted research, source comparison, drafting, formal checking, and document preparation contributed substantially to this draft. These contributions include proposed arguments and interpretations that remain subject to the author's review. Preparation of a checked draft does not establish the author's approval of every claim. Authorship credit remains with the human author; the use of these tools is disclosed to support critical assessment of the manuscript and its limitations.

1 Institutional Vocabulary Decisions

An institution can adopt a term that becomes consequential for people who continue to understand the relevant practice differently. The decision may organize a report, establish a shared technical reference or specify the vocabulary through which a proposal is assessed. Its usefulness does not settle the institution's authority to impose its consequences, and its authority over one activity does not settle the meaning of the expression elsewhere. This paper investigates that bounded relation between terminology adoption and justified institutional action.

The primary analytical object is an adoption arrangement: a historically formed configuration of participants, expressions, purposes, decision roles, interpretive procedures and practical consequences. The arrangement can make a term easier to use while changing how alternatives become intelligible to its reviewers. A proposed alternative may remain publicly available yet lose the distinction through which it could challenge the adopted terminology. Conversely, a shared term can improve communication and provide a more reliable basis for correction. Neither direction follows from adoption alone.

1.1 A Bounded Adoption Problem

Consider a fictional assessment arrangement. Its declared task is to determine whether a participant can apply a written conditional instruction to a new case. It adopts the report category "assisted performance." One episode includes an enlarged presentation of the same instruction; another includes a prompt supplying part of the inference the participant was asked to make. Suppose both receive the same institutional record, even though a challenge to the category concerns precisely this difference.

The example does not establish that the two episodes ought to receive different final assessments. That requires an argument about the task and the relevant assistance. It identifies a prior question: can the adoption arrangement make the proposed distinction assessable? A procedure that returns every objection to the same undifferentiated record might be unable to answer that question, even while processing submissions correctly according to its existing rule.

The institution can have strong reasons for a common reporting vocabulary. Comparable records, reliable communication and assignable responsibility can benefit participants. The challenge therefore concerns the scope and operation of the decision, rather than a presumption that standardization is objectionable. An adequate argument must explain both what the shared term accomplishes and what would warrant its consequences for people whose concerns it handles imperfectly.

1.2 Inherited Analytical Distinctions

The Generative Relational account of normative formation already distinguishes constructive interpretive authority from control over the conditions through which alternatives become intelligible. It develops the possibility that a dominant vocabulary removes an important distinction during translation, and explains why formal permission to disagree need not establish effective contestability [5, pp. 23–25, 43–44]. The present paper inherits this mechanism; terminology does not make it a new discovery.

The prior convention-formation study also separates understanding, application assessment, practical standing and the justification of standing. Its account of local answerability explains how a useful convention can remain open to a challenge without requiring equal decision power for every participant [11, Section 10]. The adoption inquiry adds a more explicit institutional object: who may select a term for a particular activity, which consequences fall within that authority and which response conditions its justification requires.

The power framework further distinguishes a judgment from the enacted transformation conditioned by it [7, Section 6.6]. Selecting a preferred expression, announcing that selection and changing the operations available to users are different occurrences. A claim about authority needs to identify the consequence actually at issue. A vocabulary recommendation, a required reporting term and a condition for access to an activity can demand different justifications.

An earlier epistemic-authority manuscript proposes that governance should be generated within the relation that produces knowledge [4]. The present study retains its concern for answerability while treating its internal-only stability claim as an open proposal. Separately mandated review can sometimes provide the relevant knowledge, independence and practical consequence. The location of a reviewer's origin alone does not establish the review's adequacy or instability.

1.3 Argument And Method

The philosophical argument develops a positive account of limited adoption authority. A decision needs a defensible institutional purpose and mandate, relevant grounds for choosing the terminology, proportionate consequences and an account of affected participants' claims. Where the justification includes answerability to pertinent reasons, the adoption arrangement must preserve a practicable route for those reasons to receive substantive assessment.

That condition leaves room for a justified refusal. Making a challenge assessable does not make it correct. Nor does recognizing one pertinent distinction commit an institution to unlimited reopening. Expertise, existing reliance, urgency, finite attention and the interests of other users can support bounded procedures. The paper examines how these reasons constrain a proposal for continuing contestation.

The literature review compares primary arguments about authority, terminology and conceptual choice, then places selected institutional procedures beside them. Names, technical nomenclatures and ordinary conceptual vocabulary have different objects and practical consequences. Their comparison does not establish one universal kind of linguistic authority.

Three formal investigations make selected conditions explicit. A finite operation model examines whether repeated record-based review can recover a distinction the available record omits. A nonlinear regional field compares local response followed by aggregation with normalization before response. An observable algebra relates these comparisons to the conditions under which an institutional record supports closed response dynamics.

These are several possible representations. History-bearing spacetime precedes the finite coordinates; a labelled two-complex can retain selected occurrence and attachment relations. Neither the field nor the algebra establishes ultimate ontology or normative legitimacy. Their purpose is to expose a premise that an institutional argument might otherwise conceal.

1.4 Contribution And Boundaries

The proposed contribution is a bounded investigation of adoption authority and its response conditions. It does not claim a new general theory of authority, conceptual engineering or normative closure. Its formal comparisons are conditional, and the relevance of their variables requires an interpreted application.

The inquiry also remains distinct from adjacent papers. The grant-allocation study concerns support and later eligibility evidence [10]. Here the question is the authority to make an expression institutionally consequential and the treatment of a challenge to that choice. A curriculum's substantive priorities and a terminology registry's engineering require further investigations.

The resulting claim is deliberately limited. When a bounded authority justifies its terminology partly by its capacity to receive and assess pertinent reasons, the practical organization of that assessment belongs within the justification. Stable uptake and a formal right to submit an objection do not alone establish that capacity. The paper develops the additional conditions and the reasons for their limits.

2 Terminology Authority Research

Terminology adoption connects several questions that receive different treatments in research on representation, disagreement, language planning and political authority. A proposed expression can improve a classification, communicate a disputed distinction, acquire regular use, or become a requirement of an institutional activity. Each accomplishment has its own conditions. This section compares a selected

primary literature to identify the transitions that require further justification. Its method is conceptual comparison supported by scoped textual reading. The institutional documents examined in Section 12 supply procedures against which the distinctions can be tested; they supply neither a representative sample of institutions nor causal estimates of adoption effects.

The review distinguishes the evaluation of a vocabulary from the allocation of authority to make that vocabulary consequential. A useful proposal can be offered by someone who lacks the relevant mandate. A properly appointed body can choose a poor expression. An adopted expression can become familiar while its justification remains contested. Conversely, a defensible decision can encounter resistance without thereby losing its justification. These possibilities identify a relational problem: the reasons supporting a proposal, the standing of its proposer, the operation that enacts it and the subsequent opportunities for challenge belong to one arrangement, while remaining separately assessable.

2.1 Representational Choice

Burgess and Plunkett describe conceptual ethics as normative and evaluative inquiry into the representational resources people should use. Their use of ethics includes considerations beyond narrowly moral assessment. They also distinguish selecting a conceptual resource from selecting its linguistic expression: retaining an existing word and introducing a new one present further practical questions. Their account permits disagreement about the metaphysics of concepts while retaining a shared inquiry into representational choice [1, pp. 1094–1097]. This supplies an established basis for treating terminology evaluation as substantive inquiry. The possibility that representational choices affect practical life is an antecedent of the present investigation.

For an institutional adoption problem, the relevant evaluation needs a specified purpose and consequence. Consider a constructed system for recording teaching encounters. One proposed category groups every occasion involving another person's contribution. Another distinguishes a contribution that supplies the answer from a contribution that makes the question accessible. Either category could serve a purpose: the broad category might organize scheduling, whereas the narrower distinction might matter to an assessment of a particular inference. Assessing a label requires an account of the operation that uses it. Its practical adequacy cannot be read from its grammatical elegance or the number of cases it groups together.

The example also separates several possible recommendations. A researcher can propose that a distinction is useful. A teacher can request permission to record it. An administrator can require one field in an assessment form. A governing body can decide what consequences attach to that field. These acts can employ the same expression while changing different relationships among participants. A case for the first act therefore leaves open the authority required for the others. The additional issue is especially important when a proposal moves from optional analysis into assessment, certification or exclusion from an activity.

The present argument retains a modest understanding of improvement. A term may become better suited to one activity while becoming less convenient for another. Its adoption may reduce recurrent explanation for experienced participants and increase learning demands for newcomers. Neither circumstance alone settles the decision. An adequate justification specifies whose activity is coordinated, which benefits matter, what burdens are acceptable and how those judgments may be challenged. This does not require a complete comparison of every possible vocabulary. It requires a sufficiently determinate account of the decision being authorized.

2.2 Metalinguistic Disagreement

Plunkett and Sundell argue that genuine disagreement can occur even when speakers employ an expression with different semantic contents. Their account of metalinguistic negotiation concerns disputes about how an expression should be deployed, conveyed partly through the speakers' competing uses. The importance of the disagreement need not depend on its being expressed as an explicit statement about language. They present the account as a resource for analyzing normative and evaluative disputes,

while declining to make its application mandatory for every particular domain [16, pp. 3–4, 15–16]. Their analysis explains a possible structure of disagreement; it does not determine a disputant’s institutional right to settle that disagreement.

This distinction matters when an institution receives a contribution whose intended role differs from the role assigned by its current vocabulary. A participant might contest whether a designation should trigger a consequence. A response that checks only whether the designation was correctly applied under the existing rule can miss the proposal. The participant’s intervention concerns the deployment of the rule, whereas the response addresses an application within it. Both parties may produce intelligible sentences, and the institution may retain a complete transcript, while the operation needed to assess the proposed change remains absent.

The diagnosis requires care. Some disagreements genuinely concern mistaken facts or inconsistent application of an accepted definition. Others concern evidence, consequences, jurisdiction or the desirability of the term itself. An institution has reason to distinguish these matters because different responders and remedies may be appropriate. The relevant safeguard is a capacity to identify the kind of intervention being attempted and to preserve its pertinent distinction while routing it. A demand that every objection be treated as a proposal to reconstruct the entire vocabulary would introduce its own interpretive error.

The difference can be developed through a constructed correction. Suppose a participant says that a recorded designation misrepresents the role of a helper. One response corrects an inaccurate description of what the helper did. A second changes the category into which that accurately described act is placed. A third leaves the category intact but revises the consequence attached to it. A fourth concludes that the institution lacks the mandate to attach that consequence. These replies concern different objects. An effective review arrangement can distinguish them even when its final decision preserves the original word.

Metalinguistic sensitivity therefore supplies an interpretive requirement rather than a presumption in favor of lexical change. A challenger can be understood and reasonably rejected. The proposed distinction may be immaterial to the authorized task, may duplicate an existing distinction, or may impose costs that the arrangement cannot justify. The review must reach those conclusions through an assessment of the relevant proposal. Treating the proposal as a defective attempt to repeat established usage would settle a different matter.

2.3 Classification Procedures

Nado proposes classification procedures as targets of conceptual engineering, distinguishing an abstract method from its linguistic expression and particular implementation. Multiple procedures can produce the same classification, and the account allows discussion of incomplete or open-textured procedures. She also distinguishes formulating a proposed improvement from securing its implementation, assigning the central engineering work to formulation [15, Secs. 2.3, 3.1–3.2]. Her proposal helps specify what an institution might ask participants to use without settling disputed theories of concepts or meaning. Its separation of formulation and implementation also marks a boundary of inquiry. The present paper investigates institutional relations that become salient when a proposed resource is enacted; it does not infer a defect in a project deliberately focused on designing that resource.

A procedure can be useful before anyone has authority to require it. Suppose two assessment methods classify the institution’s existing examples identically. One method asks the assessor to inspect the source encounter, whereas another applies a summary code. Their agreement on the examples leaves open the practical work each method requires and the kinds of future objection it can receive. If the source encounter contains a distinction absent from the code, the methods may diverge precisely when a participant challenges a recorded decision. Extensional agreement on a selected set consequently supplies limited evidence about their institutional interchangeability.

The implementation question includes more than persuasion. A procedure can be taught, embedded in a form, attached to a funding decision, or made a prerequisite of participation. These are constructed possibilities, each with a different consequence and demand for justification. The model developed later

selects some such operations rather than reducing implementation to the number of users who repeat a definition. The distinction between adoption and regular use remains important even when the two reinforce one another.

The relation also operates in the other direction. Implementation can expose features that a proposal's initial evaluation did not consider. A rule might be clear when used by its designer but ambiguous when a different group has to apply it. A distinction might be formally expressible yet costly to document. Such possibilities motivate a continuing response route, but they do not show that initial design is futile or that only unrestricted revision can be justified. The appropriate response depends on the activity's stakes, the distribution of interpretive work and the availability of another way to preserve the pertinent distinction.

This limited translation avoids identifying a classification procedure with a GR historical object. An abstract method can be one retained component of an adoption arrangement. The arrangement additionally includes occasions of interpretation, available supports, responsibility and changing consequences. Those additions answer a different question: what makes the method institutionally executable, and what becomes possible after its execution. Preserving this difference permits conceptual engineering and historical relational analysis to inform one another without an asserted identity between their objects.

2.4 Standardization Stages

Haugen's analysis of standardization distinguishes selection of a norm, codification, elaboration of function and acceptance. He examines tensions between stabilizing linguistic form and extending its uses, and between choosing a norm and establishing its social acceptance [3, pp. 931–933]. These distinctions provide a historical antecedent for separating an issued standard from its continuing use. Their original discussion concerns language and nation formation, a larger object than a bounded terminology decision. The present paper adopts neither a universal developmental sequence nor a ranking of linguistic communities from that historical framing. It uses the distinctions to identify different questions about institutional vocabulary.

For the selected inquiry, a proposal can fail at several different points. Participants may understand a rule yet lack the equipment or records needed to apply it. They may use it consistently within one activity and retain other terms elsewhere. They may accept its coordinating role while disputing its extension to a new domain. These possibilities call for a history of operations rather than a single declaration that adoption has either succeeded or failed. The relevant unit includes the activity and consequence to which the decision applies.

The distinction is important for assessing apparent consensus. In a constructed organization, everyone may use the required field because another format cannot be submitted. Identical usage would then be compatible with several attitudes toward the rule. In a second organization, participants may have independently compared alternatives and reached the same usage. The present paper does not infer either history from a uniform record. It asks what additional evidence would identify the route by which the rule became consequential and the means by which its scope can now be reconsidered.

Standardization can nevertheless preserve valuable options. A common term may make it easier to locate earlier decisions, learn an unfamiliar practice or identify a recurring ambiguity. A stable designation can support a challenge by giving the participant an addressable rule and a responsible office. The source of possible closure is therefore more specific than common usage. It concerns the relation between the established vocabulary and the operations available for presenting a pertinent alternative. A useful shared term and a usable route for questioning its deployment can belong to the same arrangement.

The analysis consequently avoids measuring authority by the degree of linguistic uniformity. A tightly specified technical activity may justify a common record format. An advisory setting may appropriately preserve several established expressions. The difference turns partly on what the arrangement is empowered to do and what coordination requires there. A justified decision within one domain supplies no automatic authorization to regulate expression in another.

2.5 Expertise And Political Justification

Estlund separates several claims that can be combined in an argument for political rule by the knowledgeable: normative political judgments can be true, some people can know more, and their knowledge might support holding power. His further concern is the public identification of the relevant knowers and the reasons owed to those subject to their rule. He distinguishes gaining power and obtaining practical allegiance from moral legitimacy. This argument permits objective truth and differences of competence; it challenges their sufficiency for the proposed political authority [2, pp. 72–73, 84–89]. Its political domain matters. A scientific naming committee and a political sovereign have different mandates, consequences and grounds of accountability. The comparison identifies a justificatory question without importing the chapter’s political requirements unchanged into every specialist body.

For terminology adoption, expertise can justify a substantial division of labor. A reviewer may possess knowledge that other participants cannot reasonably reproduce for each decision. Requiring equal technical competence before anyone may be bound by a record convention would undermine the purpose of coordinated expertise. A defensible arrangement can therefore assign an expert a distinctive role while requiring that the role remain intelligible, bounded and answerable. Equal standing to raise a relevant concern does not imply equal competence to resolve every component of it.

The remaining issue concerns the connection between expertise and the particular consequence authorized. Knowledge of a word’s historical formation may support advice about a name. Expertise in chemical classification may support a technical recommendation. Neither example, by itself, establishes authority over every social use of the expression. The institution needs an account of the activity it governs and of the relation between its competence and the burden it places on participants. A mandate may also divide these responsibilities among several bodies rather than locating them in one expert.

There is a strong positive case for bounded authoritative decisions. Participants can have reasons to prefer one stable convention even while accepting that several alternatives would be adequate. Repeatedly reopening the choice can consume resources needed for the activity itself. The authority to settle an operative convention can then serve shared purposes. Its justification should identify the settlement’s range and duration and the kinds of new consideration that warrant renewed attention. A continuing challenge route can support stable cooperation by making the conditions of reconsideration explicit.

The opposite mistake is to make the mere existence of disagreement defeat authority. A participant can object strategically, misunderstand the rule, or request an outcome inconsistent with the arrangement’s defensible purpose. Assessing such an objection may properly produce a reasoned refusal. What requires preservation is the possibility of presenting and assessing pertinent grounds, not an entitlement to success or an unlimited opportunity to delay. The paper’s later formal constructions address selected conditions of that possibility; normative justification exceeds what their reachability results establish.

2.6 Institutional Comparison Scope

Three primary documents concern chemical recommendations, zoological nomenclature and advisory place-name standardization [14, 13, 17]. Section 12 examines their distinct mandates and specific versions. The comparison concerns proposal, competence and review; it does not treat these domains as interchangeable exercises of authority over meaning.

The comparison is deliberately asymmetric. One document may specify a public comment stage; another may provide a mechanism for reviewing a decision; another may primarily guide expert advice. The absence of a mechanism from a short guide does not establish its absence from the wider institution. Nor does an explicit mechanism establish that every affected participant can use it. These limits shape the analysis rather than appearing as qualifications added after a general judgment about institutional openness.

The GR contribution is equally bounded. The prior normative-formation manuscript already distinguishes constructive interpretive authority from closure and examines how established categories can influence the intelligibility of later alternatives [5, pp. 23–25]. The present inquiry inherits that problem. Its task is to specify selected adoption and challenge operations closely enough to distinguish retaining

an expression from retaining the participant's route to consequential assessment. The literature supplies several necessary distinctions; the models investigate a restricted arrangement assembled from them. Neither their conjunction nor their mathematical representation establishes a new general theory of authority.

3 Historical Terminology Arrangements

An institution adopts more than a sequence of characters when it makes a term consequential. It selects a way of connecting descriptions to actions, teaches that connection, and relies on people to recognize when the description applies. This section specifies that historical arrangement before the authority argument begins. It distinguishes the expression, the interpreted distinction, the institutional operation and the continuing practice that makes the operation usable. A constructed assessment case then identifies the particular dependence examined throughout the paper: implementation of the adopted vocabulary can alter what a later challenge is able to communicate.

3.1 The Consequential Vocabulary

Consider a fictional institution responsible for a bounded practical assessment. Its selected task requires a participant to apply a written conditional instruction to a new case. Assessors must record whether the observed performance supplies evidence of the participant's ability to make the required inference. The institution introduces the label *assisted performance* to organize reports containing some contribution from another person or an altered presentation. A shared label could help assessors identify observations that need further examination. The arrangement becomes problematic only after its interpretation and consequences are specified.

Suppose that the label is entered both when an instruction is enlarged for reading and when another person supplies a content-bearing prompt identifying how the instruction applies. For the constructed comparison, enlargement leaves the selected inferential demand unchanged, whereas the prompt supplies a part of the inference being assessed. These are stipulations about this task, not general claims about assistance, accessibility or the independence of real human performances. The institution may have other legitimate reasons to record both events. The pertinent question is whether its later operation retains the difference when deciding what the observed performance supports.

The expression itself settles little. It might name a broad preliminary category followed by a differentiated review, or it might be the only category available to the final decision maker. A record with the same words can therefore participate in quite different arrangements. In one, the label alerts a reviewer to examine the type of support. In another, it substitutes for that examination and produces a fixed consequence. Whether the terminology is adequate depends on this use, including the inferential demands of the assessment and the authority of the institution to attach that consequence.

The analytical object is consequently the *adoption arrangement*: the historically connected proposals, interpretations, responsibilities, records, decisions and practical responses through which the term acquires its selected institutional role. The object can include several offices and many participants without becoming a theory of their entire language. Its boundary follows the consequential operation being investigated. A wider history becomes relevant when it explains a current interpretation, enables a challenge, or supports a claim about the institution's responsibility.

3.2 The Historical Carrier

Generative Relational analysis treats this arrangement as historically extended. Earlier reports, assessor training, participant explanations and revisions can remain operative in its present organization. The institution at the moment of adoption is thus not an isolated chooser confronting an ahistorical list of synonyms. Its ability to make any choice usable depends on previously formed capacities for interpreting instructions, recording performances and distinguishing evidence from decision. Adoption can reorganize those capacities while drawing on them.

A history-bearing spacetime provides the general object language for the formal development. A labelled two-complex can represent selected occurrences and their relations; additional spin-foam structure would require a further instantiation. These representational possibilities do not establish that an institution is ultimately a geometrical or physical object. Their present value is that they make historical connection explicit and permit different interfaces of one arrangement to retain different information. The participant's account, the assessor's record and the committee's summary need not be identical descriptions of an episode.

Historical extension also prevents a misleading account of replacement. Installing a new term does not erase older explanations from the participants' histories. It can nevertheless make those explanations harder to submit or connect to current decisions. An old record may survive while no current reviewer can interpret its categories; conversely, a new interface may translate the relevant distinction successfully without preserving the old wording. The preservation question therefore concerns a declared relation between the older contribution and the later operation, rather than either verbatim retention or historical erasure.

The taxonomy's judgment architecture supplies an important inherited constraint here. Structural preservation, contextual identification and normative valuation are distinct inquiries; historically formed criteria can remain epistemically adequate or normatively objectionable for different reasons [8, Section 13]. A representation that retains an objection's selected content gives one fact relevant to appraisal. It does not establish the institution's right to decide, the correctness of its answer, or a duty to retain every distinction carried by the source history.

3.3 Differentiated Contributions

Several participants can contribute indispensable elements to the same adoption without possessing the same standing in every question. Experienced assessors may know which prompts supply the answer. Participants may know which presentation change enabled them to read an instruction without changing its content. Administrators may understand the consequences of inconsistent record categories. A review body may be responsible for resolving disputes after considering these contributions. Treating the arrangement relationally preserves these differences instead of locating complete knowledge or authority in one point.

The dependence is also temporal. Participants can discover an ambiguity through use that no proposer anticipated. An initially serviceable category may cease to support the intended inference when assessment materials change. A distinction that previously required extensive explanation can become teachable through a revised example. These developments give the adoption a continuing history rather than a single moment of authorization followed by passive application. They do not imply that every user becomes an equal decision maker. They explain why authoritative use can depend on contributions that authority did not itself produce.

Actual uptake remains a separate consideration. A term can enter informal use without institutional adoption, while an official label can produce consequences even when users continue to prefer competing expressions. In the case, participants may repeat *assisted performance* because the form requires it. Such repetition supplies evidence of an interaction with the form. Whether it also expresses endorsement, conceptual convergence or confidence in the assessment requires further evidence. The institution can obtain orderly records without thereby settling the reasons for its policy.

The prior account of normative formation already explains this distinction through the difference between generative capacity and realized influence. It also shows how established vocabulary, documentation and training can change the conditions under which later contributions acquire significance [5, Sections 6–7]. This paper inherits that mechanism. Its narrower task is to specify the authority relation created when one adoption makes a selected vocabulary consequential for people whose relevant descriptions may not fit it.

3.4 The Interpretation Sequence

A contribution changes its practical role as it passes through the arrangement. A participant first describes an episode. An assessor or intermediary interprets the description. A record then makes some interpreted features available to a body that can act. Each transition can preserve the distinction relevant to the dispute, revise it through clarification, or discard it. The existence of all the offices and all the forms does not establish that their operations compose into one adequate route.

For example, a participant explains that the enlarged instruction contained no additional information. The receiving office accepts the account but classifies every altered presentation as assistance. A review form permits challenges to an assistance finding only by showing that no assistance occurred. If the institution reads the broad category as evidence of inferential prompting, the participant cannot challenge the inference merely by accepting or denying the entry. The objection concerns the relation between the category and the consequence. A process limited to correcting category membership addresses a different question.

There are several possible repairs at the conceptual level. The source account can travel with the coded entry; a reviewer can receive a typed explanation of the support; or a separate review can examine whether the category is fit for its institutional purpose. These possibilities need not install the participant's vocabulary as the new standard. They need to make the pertinent objection available in a form that someone responsible for the consequence can assess. The later formal sections examine selected conditions for this composability.

The prior power analysis distinguishes a judgment from the enacted transformation conditioned by it [7, Section 6.6]. The distinction matters here because recording *assisted performance* does not by itself determine the later effect. A concrete procedure has to connect the classification to an assessment outcome, opportunity or obligation. Establishing that connection makes the adoption consequential; establishing a reflexive effect requires showing that its consequences also change later contributions or their reception. Neither effect follows simply from writing an arrow in a model.

3.5 The Relevant Continuation

The selected continuation is the possibility of bringing a pertinent challenge into competent assessment while the adoption remains consequential. It includes more than preserving a past utterance, since someone must still be able to interpret and submit it through an available operation. It includes less than an unrestricted capacity to transform the institution. A participant can obtain a reasoned assessment and still lose the dispute. A committee can retain its adopted term while narrowing a consequence, changing an example, or explaining why the proposed distinction is immaterial to the legitimate task.

This intermediate object avoids two distortions. Treating any received message as a successful challenge disregards what the message can make available for judgment. Requiring a successful challenge to reverse the decision makes answerability depend on agreement with the challenger. The present inquiry instead asks whether the specified reason can reach a responder able to consider the requested issue and issue an appropriate kind of reply. Whether that reply is justified remains assessable through the relevant substantive standards.

The arrangement also has practical limits. A participant may need time, interpretive assistance or access to the underlying report. Those requirements belong to the operation's domain, not to a supplementary description added after a path has been declared available. An institution may be justified in restricting some routes because of cost, privacy or the need to complete an assessment. The authority argument must then explain the restriction and examine the remaining means of presenting the pertinent issue. The next section develops that argument without treating maximal openness as the default measure of legitimate adoption.

4 Adoption Authority

A vocabulary can improve coordinated activity without giving its proposer a right to impose every consequence associated with it. Conversely, a responsible institution may justifiably select a working term even when several alternatives remain defensible. This section develops a bounded argument for such selection. It connects the institution's responsibility to the particular requirement it imposes, distinguishes epistemic contributions from decisional standing, and explains why an adoption that continues to affect people can require a practicable route for relevant challenge. The resulting account is a proposal about justificatory considerations, rather than a complete theory of legitimate authority.

4.1 A Bounded Institutional Responsibility

The positive argument begins with an activity for which an institution bears a defensible responsibility. Suppose that participants have reasons to rely on its assessment reports and that the institution is accountable for producing them consistently. A common reporting vocabulary can then make the selected assessment intelligible across assessors and occasions. It can reduce avoidable variation and enable participants to locate the basis of a consequence. Requiring a report to use that vocabulary can serve the responsibility itself.

This argument requires more than the fact that the institution has already acquired control. A powerful body can declare a task, invent a reporting need and then cite the need as authority to regulate others. The proposed justification instead presupposes reasons for the underlying responsibility: an accepted undertaking, a justified assignment of office, or another defensible relation to affected parties. The present paper does not adjudicate every possible source of mandate. It makes that premise visible so that a model of effective implementation cannot silently supply it.

The requirement must also fit the responsibility. Authority to coordinate one assessment procedure need not include authority to govern private description, all professional language, or the participant's self-understanding. Requiring the institutional report to distinguish particular evidential conditions can be justified without requiring everyone to endorse the institution's preferred vocabulary outside that report. The scope of the consequence, the people bound by it and the activity it regulates matter because they determine what the mandate has to support.

In the constructed case, the institution might have a legitimate reason to distinguish performances that supply evidence for the selected inference from performances whose content was supplied by a prompt. It may need a stable category while training assessors and reviewing outcomes. The reason does not by itself support treating every altered presentation as a content-bearing prompt. A justified institutional purpose can coexist with an inadequate connection between a term and its practical application. Identifying that inadequacy does not require denying the purpose.

4.2 The Coordination Reason

Coordination sometimes requires choosing among several adequate expressions. If different assessors use different labels for the same relevant distinction, users may bear unnecessary interpretive work and similar cases may receive inconsistent treatment. A selected term can provide a common reference through which disagreement becomes easier to state. Participants can challenge the same published definition, compare applications and identify which institutional body is responsible. Stabilization can thus improve the practical conditions of criticism.

The coordination reason is strongest when the chosen vocabulary performs a task that cannot be obtained as well through a less demanding requirement. This is a comparative argument, not a universal demand to minimize restriction regardless of other costs. Permitting every report to use an idiosyncratic expression may transfer interpretation burdens to later users. Maintaining multiple accepted expressions with a reliable correspondence may instead achieve the needed coordination at tolerable cost. The institution should explain why its chosen level of uniformity fits the activity rather than treating uniformity itself as the good to be maximized.

A determinate settlement can therefore be warranted even without proof that one term is uniquely best. The decision might choose an adequate expression because it is teachable, already intelligible to relevant users, or compatible with records on which they reasonably rely. Those reasons can support a working standard while leaving room for later revision. The resulting authority concerns selection for the declared use. It does not turn the expression into an intrinsically superior linguistic form.

This constructive account follows the earlier distinction between decisional closure and normative closure. The former allows action to proceed; the latter concerns the substantial restriction of routes through which relevant alternatives can participate in continued formation [5, Sections 7 and 14]. That distinction supplies the starting point here. The present argument asks how a particular terminology requirement can deliver its coordination benefit while maintaining the kinds of answerability on which its continuing justification depends.

4.3 Differentiated Standing

Expertise can make a person's judgment more reliable on a selected question. It does not settle every question about who may impose the resulting decision. An assessor's understanding of prompting may justify substantial deference when interpreting an assessment episode. The institution's mandate may authorize a committee to determine the consequence. A participant's account may supply evidence unavailable to either. These contributions can support one decision without being interchangeable.

The distinction becomes especially important when the policy imposes burdens on users. A technically competent committee may know that a category is easy to administer while lacking knowledge of the work required to translate a participant's experience into it. The participant's standing to raise that burden does not depend on possessing the committee's technical expertise. Nor does that standing confer authority to settle the technical inference. A reasoned arrangement must connect these different contributions to the questions for which they are relevant.

Affected standing is therefore a reason for access to assessment of pertinent claims, rather than a principle that every affected person has an equal veto. The institution can reject an allegation after examining evidence, distinguish a preference from a reason bearing on its mandate, and explain why a burden is justified. What matters for the present argument is that the affected person's contribution is not disqualified solely because its formulation differs from the vocabulary whose adequacy is disputed.

There can be reasonable disagreement over pertinence itself. A participant may challenge the institution's choice to assess a particular inference, while a local review body is authorized only to correct its application. The distinction should be disclosed. A narrower review can succeed at its assigned task while leaving the broader challenge unresolved. Calling the first route successful should not make the second issue disappear; equally, the existence of the second issue does not render every narrower assessment illegitimate.

4.4 Continuing Answerability

Why should a justified initial adoption require any continuing challenge route? One answer concerns the fallibility of its evidential basis. The term may be applied to circumstances the original decision did not adequately consider. Another concerns its continuing effects: people remain subject to a consequence whose rationale depends on a selected distinction. A third concerns the institution's own intervention in how evidence becomes available. When its reporting system makes some accounts easier to express than others, absence of registered objections becomes a limited basis for confidence.

These reasons support a proposed obligation of continuing answerability within the relevant mandate. The obligation concerns a practicable opportunity for a pertinent challenge to reach a body able to assess the matter and issue an appropriate response. It need not require immediate reconsideration of every settlement. Its form can depend on urgency, consequence, available evidence and the practical burdens of reopening. A periodic review may be appropriate for some questions; a serious imminent consequence may require a faster route.

The obligation has a semantic component because reasons have content. A system that changes *the assistance did not supply the inference* into *no assistance occurred* has changed the issue before assessing it. The institution might answer the second claim accurately while leaving the first untouched. An adequate route preserves enough of the objection to make its bearing on the institutional reason assessable. It can do so by translation, examples, retained source material or another justified interpretive operation; verbal identity is unnecessary.

It also has a practical component. A perfectly faithful submission format is of little use if the participant cannot access it within the relevant time or if no empowered reviewer receives it. Conversely, a responsive official cannot assess a distinction that the available records have already removed. The later formal constructions investigate selected compositions of these requirements. Their conclusions remain conditional on the challenge family, interpretive warrants and executable operations that the representation declares.

4.5 A Reasoned Closure

Answerability can culminate in retention of the adopted vocabulary. Suppose that a reviewer receives the source episode, correctly distinguishes enlarged presentation from a content-bearing prompt, and finds that the institutional consequence actually depends on a separate condition satisfied in both cases. If that condition is itself justified for the declared activity, the participant's distinction may not warrant changing the outcome. A genuine review has occurred even though the objection fails.

The reply should identify that reasoning. Merely repeating the category would leave open whether the distinction was considered. A response connecting the acknowledged difference to the relevant purpose permits the participant and later reviewers to identify the remaining disagreement. The participant may continue to dispute the purpose or its justification, but the arrangement has not required agreement as proof of comprehension. A stable record of the disagreement can support a later inquiry without suspending present action indefinitely.

There are also occasions on which a temporary restriction is justified. During execution of a time-sensitive coordinated task, a common instruction may have to retain its operational meaning while objections are directed to a separate review. Continued use during review is compatible with revisability when the review remains practically available and can affect the appropriate later decision. The institution must still consider whether postponement imposes an unacceptable consequence in the particular case. The concept of urgency does not supply a universal exception.

The older epistemic-authority manuscript proposes returning authority to answerable relations while preserving functional asymmetry [4, Sections 2 and 5]. Its stronger claim that stable governance must arise within the same value-generating relation is not required here. A separately mandated reviewer can provide the relevant response, and a familiar internal forum can fail to do so. The justification concerns the actual organization of responsibility, interpretation and consequence. A bounded authority can be sustained through several institutional forms, provided that its claimed reasons and the practical conditions of pertinent challenge remain open to appropriate appraisal.

5 Consequential Adoption

An institutional terminology decision becomes practically important through the operations it changes. This section locates those changes within a history-bearing arrangement. It distinguishes an expression's manifestation, the institution's interpretation, its decision and the consequences of implementation. The construction provides a GR interface for the finite and field models without reducing authority to their mathematical properties.

5.1 Historical Occurrences

Let $\mathcal{H}$ be a declared family of finite histories. A member h retains the selected participants, earlier uses, proposals, comparisons, decisions, applications and objections relevant to the inquiry. The extension

relation $h \preceq h'$ records continuation of that retained history. An amended interpretation can be a new event in h' ; it need not erase the earlier interpretation from the record.

This historical object is richer than the current entry in a terminology list. A preferred term can remain unchanged while its application, required evidence or practical consequence changes. The same entry can be reached through an open comparison, a narrow administrative decision or a contested imposition. These histories need not yield different present usage statistics, yet they can supply different reasons for acceptance or challenge.

A possible realization associates h with a labelled two-complex K_h . Vertices and edges retain selected interfaces and occurrence relations; faces can record a comparison between an original proposal and its institutional rendering. Such a face does not assert their semantic equivalence unless that is separately established.

For a retained historical anchor K_- , write $\iota_h : K_- \rightarrow K_h$ for its inclusion. An admitted comparison map $f_{hh'}$ preserves that anchor when Equation (1) holds.

$$f_{hh'} \circ \iota_h = \iota_{h'}. \quad (1)$$

Equation (1) inherits the distinction between retained history and changed future operations [6, 9]. A spin-foam realization would require additional labels and weights. No such instantiation is assumed here.

5.2 Expressions And Institutional Records

An expression is considered with a context of use, an intended claim and a proposed institutional role. Two identical strings can carry different claims. Two different strings can support the same distinction. The model therefore does not take orthographic identity as the complete criterion of a proposal's content.

Let D_h be the selected contextual submissions available at history h , and let R_h be the record carrier used by the institution. A partial normalization map is introduced in Equation (2).

$$n_h : \text{Dom}(n_h) \subseteq D_h \longrightarrow R_h. \quad (2)$$

Equation (2) can represent classification, controlled wording or a translated summary. Its partiality means that a locally meaningful submission may lack an accepted rendering. An institution that assigns an explicit unclassified status can instead include that status in its record carrier. Undefined, unclassified and rejected are different outcomes.

The partial-map interface is inherited from the GR analysis of inter-nomic mediation [12, pp. 39–41]. A common record can support a bounded task without preserving every distinction in the source practice. That selective character is often useful. The assessment concerns whether a particular discarded distinction matters to the institutional reason being offered.

5.3 Decision And Enactment

A proposal's record can be interpreted, evaluated and adopted without each operation having the same domain. A term may be intelligible but outside the committee's remit. It may be useful but incompatible with another accepted commitment. It may be recommended without being made compulsory.

Let $\mathcal{J}_h$ be the specified carrier of judgments and $\mathcal{X}$ the selected family of history-bearing configurations. The judgment operation has type $J_h : \text{Dom}(J_h) \subseteq R_h \rightarrow \mathcal{J}_h$. For a resulting judgment j , the partial enactment operation has type $E_h^{[j]} : \text{Dom}(E_h^{[j]}) \subseteq \mathcal{X} \rightarrow \mathcal{X}$. Equation (3) keeps these stages separate.

$$r = n_h(d), \quad j = J_h(r), \quad x' = E_h^{[j]}(x), \quad h \preceq h'. \quad (3)$$

Here x is the represented configuration at history h ; each term in Equation (3) is used only on its declared domain. The equation follows the prior judgment-conditioned transformation architecture [7, Section 6.6]. It does not derive the effectiveness of implementation from the existence of a judgment.

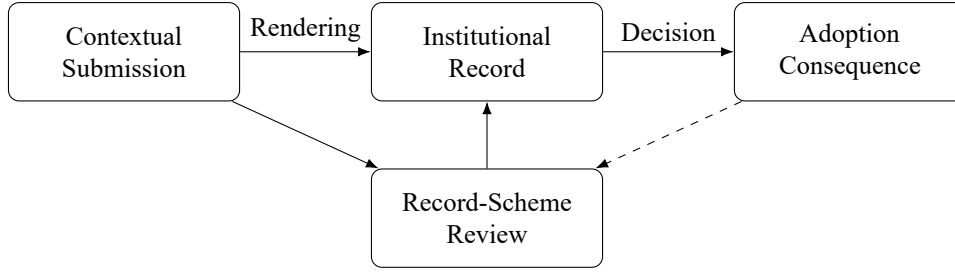


Figure 1: A Historical Adoption Interface. The upper path uses a selected institutional rendering. The lower path can examine the rendering’s own distinctions. The dashed arrow denotes a possible challenge arising from an adoption consequence. Availability, interpretation and authority require separate warrants.

Enactment can change permitted reporting expressions, application tests, review roles or the support available for translation. These changes can alter the next normalization map $n_{h'}$. The feedback is a possible historical relation, not a law that every adoption closes future interpretation.

5.4 Challenge Destinations

A challenge can address the application of an adopted term, its definition, the task it serves or the decision-maker’s standing. The relevant destination therefore matters. A body authorized to correct a clerical application may lack authority to revise a definition. Another body may have that authority but no practical route for receiving the original concern.

Figure 1 locates these distinct operations. Its lower path represents a possible route to review of the record scheme itself. It is an analytical possibility, not an assertion that such a route exists in every institution.

5.5 Practical Access

The distinction between destinations prevents a narrow review from being credited with a broader capacity it does not possess. It also protects scope discipline. An application review need not settle the institution’s whole mandate in order to correct a particular error. Different challenges can have different appropriate routes.

Availability includes the participant’s ability to use the route. A formally admissible submission can require translation, time, records or specialized help that its bearer lacks. Conversely, an institution can supply interpretation that makes a previously inexpressible concern assessable. The same normalization operation can therefore help one task while obstructing another.

The prior normative-formation study already locates contestability in effective formative relations rather than permission alone [5, pp. 43–44]. The next sections give that inherited distinction a finite operational form. Their question concerns the relation between an available record, a review repertoire and a specified distinction. Its normative importance still depends on the authority and undertaking being defended.

6 Challenge Operations

A challenge to an adopted term requires a route from the participant’s concern to an assessment that can bear on the relevant institutional decision. This section specifies one restricted operation model of that route. It distinguishes a retained source history, the record available to a reviewer, the reviewer’s executable operations and the distinction an assessment is supposed to retain. The model addresses these operational conditions; it does not determine which challenged terms should be replaced.

6.1 Historical Configuration Carrier

Let X be a declared family of historical configurations. A member x includes the source episode, its available documentation, the current adopted vocabulary and the review occurrences retained at the chosen resolution. In a bounded calculation X can be finite. More generally it can contain histories of arbitrarily many review steps. The whole source history and the institution's current record remain different objects.

Let R be the record carrier and $r : X \rightarrow R$ the readout actually available to the modeled reviewer. The carrier includes any review stage, remaining resource account or status used by the rule. Two configurations can have the same r while retaining different source histories. Equality of records is therefore an operational equivalence, denoted $x \sim_r x'$ when $r(x) = r(x')$.

The relation $\sim_r$ is chosen for a particular decision setting. It does not identify the configurations as the same historical object. An archive can preserve the source distinction even when the reviewer's operative record omits it. Whether the reviewer can recover that distinction depends on the available operations, rather than on the archive's existence alone.

6.2 Available Review Operations

Let $\mathcal{A}$ be a declared repertoire of review operations. For $a \in \mathcal{A}$, define a partial deterministic transition $f_a : D_a \subseteq X \rightarrow X$. An admitted transition appends the relevant review occurrence to the retained history. It may update a classification, request evidence or transmit an issue to another body. Its target belongs to X ; no outcome is silently discarded because it falls outside a desired success set.

The domain D_a incorporates the conditions of actual execution. These can include a submission deadline, the reviewer's mandate, access to a document, available interpretive assistance and the participant's willingness. Making an operation name appear in a procedure does not establish those conditions. An explicit request or failure state can represent incomplete information where appropriate.

The deterministic choice isolates an information and operation problem. Actual interpretation can have uncertain outcomes. A set-valued or probabilistic extension would require an explicit account of those outcomes and of what success means across them. The present theorem should not be read as an estimated probability that a complaint will receive a useful answer.

6.3 A Pertinent Distinction

Let Q be a carrier of selected issue descriptions, and let $q : X \rightarrow Q$ specify the source distinction the review is supposed to make assessable. In the constructed case, q distinguishes an access aid from a prompt that supplies part of the required inference. Its interpretation rests on the case's stipulated task and source evidence.

The referent of q is the original source episode. Admitted review continuations preserve that referent and its stipulated issue value: $q(f_a(x)) = q(x)$ whenever f_a executes. A later reinterpretation can change an institution's assessment of the episode without changing which episode the present query concerns. Terminal correctness in the following results always means recovery of q at the starting configuration. Changing the query itself would require a new assessment task.

The map q is not a verdict that one expression is correct or a claimant deserves a favorable outcome. It describes the question whose pertinent content should reach assessment. Two different q values can receive the same justified final decision. The point is that the review can distinguish and address the reasons for that decision.

A q -assessment is a terminating review that correctly identifies the selected source issue. An operation which merely returns "received" does not count as such an assessment unless the selected task is only to acknowledge receipt. The target must be specified before the institution's response is evaluated.

This formal target is demanding in a limited way: it requires correct issue identification under the model's stipulated interpretation. A real participant and reviewer can dispute that interpretation. The

dossier must then retain the disagreement and the evidence needed to assess it. Formalizing q supplies no privileged access to meaning.

6.4 Record-Based Review

A record-based policy selects its next operation, or its terminal issue description, from the sequence of records it has observed. The policy can remember earlier records and its own operation choices. It cannot consult an omitted source feature unless an available operation makes that feature observable.

Two compatibility conditions describe a repertoire whose successive records remain closed under the present readout. They are stated in Equation (4).

$$\begin{aligned} r(x) = r(x') &\implies (x \in D_a \iff x' \in D_a), \\ r(x) = r(x'), x, x' \in D_a &\implies r(f_a(x)) = r(f_a(x')). \end{aligned} \tag{4}$$

The first line of Equation (4) requires that operation availability be determined by the record. The second requires that its next record be determined by the current record and selected operation. Together they permit a well-defined partial transition on the record carrier.

These conditions are substantive premises. A source-reading operation can violate the second condition by producing different records from two currently identical ones. A participation condition invisible to the record can violate the first. Neither failure is a mathematical defect of the practice. It means the chosen record does not support the asserted closed description.

The closure distinction is inherited from the earlier interface and operation-algebra work [9]. Its current use is specific: it tests whether more rounds of a fixed review repertoire can recover the source distinction on which a terminology challenge depends.

6.5 Assessment And Consequence

Reaching a q -assessment is only one stage. The assessment must also reach a body whose mandate includes the disputed consequence if it is to support the stronger practical claim of consequential review. A technically competent analyst can identify the problem while lacking any route to an operative decision.

Conversely, a body can have ample decision power while lacking a record adequate to assess the issue. Combining these deficiencies into one measure of authority would conceal the different remedies. The finite model first isolates assessment capacity. The philosophical argument supplies the further mandate and answerability requirements.

The next section derives a conditional obstruction for the record-based repertoire. It also identifies what an effective reopening would have to change. The result concerns the implemented path from concern to assessment, not a right to a preferred terminology outcome.

7 Responsive Adoption Conditions

The distinction between an available objection and an assessable issue can now be tested within the operation model. This section proves that a record-compatible review repertoire preserves its initial observational equivalences. It then states a limited sufficient condition for reopening a lost distinction. The proofs are elementary information and composition results; their institutional meaning depends on the declared challenge target and operation domains.

7.1 Record-Compatible Continuations

For a word $w = (a_1, \dots, a_k)$, let $f_w = f_{a_k} \circ \dots \circ f_{a_1}$ on the domain where each successive operation is defined. The empty word acts as the identity. A word's domain is not the intersection of the individual D_a sets: later operations act on already transformed configurations.

Proposition 7.1 (Record-Compatible Review Paths). *Assume Equation (4) for every operation in $\mathcal{A}$. For $x \sim_r x'$, every finite word is defined at x exactly when it is defined at x' . When defined, it produces identical record sequences from the two starting configurations.*

Proof. The empty word has the same starting record at both configurations. Suppose a common prefix is defined at both and its current records are equal. Domain compatibility implies that the next operation is available at both or neither. When available, successor-record compatibility makes the next records equal. Induction proves the assertion for every length. If a prefix fails, it fails at the same step in both histories. $\square$

Proposition 7.1 does not make the full histories equal. Each transition can append a distinct occurrence to a distinct source history. The equivalence concerns what the modeled reviewer can observe through its selected repertoire.

Corollary 7.2 (Fixed-Repertoire Assessment Obstruction). *Under the proposition's assumptions, if $x \sim_r x'$ but $q(x) \neq q(x')$, no record-based policy can terminate with the correct source-issue description on both configurations.*

Proof. A record-based policy receives the same initial record. It consequently selects the same first operation or terminal output. Whenever it selects an operation, Proposition 7.1 gives identical next records. The complete observable transcripts remain identical. If the policy terminates, it therefore terminates at the same step with the same output. One output cannot equal both distinct target values. $\square$

Corollary 7.2 also covers policies with unbounded memory of the available transcript. Memory cannot add a distinction that none of its recorded steps discloses. Infinite nontermination supplies no completed assessment. Randomization without an additional informative input likewise gives the same output distribution on the two configurations; it cannot guarantee two different correct outputs. No comparison of expected utility is implied.

7.2 Institutional Meaning

The obstruction can occur even when each review step follows its announced procedure accurately. Rewording the adopted expression, confirming that it was applied consistently and escalating the same normalized record can all be useful operations for some tasks. If they satisfy the compatibility conditions, their composition does not supply the omitted source distinction.

The critical inference is correspondingly limited. The institution cannot support a claim that this repertoire assesses the selected challenge merely by pointing to additional review levels. The result does not show that every additional level is useless or that the adopted category is unjustified. A level that can consult new evidence can change the premise. A different task can make the old record entirely adequate.

This interpretation preserves the prior normative-formation distinction between ordinary concentrated authority and closure of a relevant formative route [5, pp. 23–25]. The model gives one exact operational case of that inherited distinction. It does not classify an institution from its organizational chart alone.

7.3 A Reopening Witness

A reopening must change at least one premise of the obstruction. It can provide a richer initial record, add an operation which discloses a source distinction, or revise the assessment target. These changes have different justifications.

Let $S \subseteq X$ be the selected starting configurations. Suppose a practically available operation b has $S \subseteq D_b$ and produces a new readout $r^\dagger$ with a specified interpretation $\delta : r^\dagger(f_b(S)) \rightarrow Q$. The exact witness condition is given in Equation (5).

$$\delta(r^\dagger(f_b(x))) = q(x), \quad x \in S. \quad (5)$$

Equation (5) does not assume that b creates the source fact. It can open a retained dossier, obtain an interpretation or transmit the original concern to a competent reviewer. Its availability and semantic adequacy require evidence.

Proposition 7.3 (Bounded Assessment Reopening). *If b is executable for the relevant participant and the interpretation δ is accessible to the reviewing body, Equation (5) supplies a one-operation route to q -assessment on S .*

Proof. Execute b , read $r^\dagger(f_b(x))$ and apply δ . The domain assumption makes each step defined, and the witness identity gives the required source-issue description. $\square$

Proposition 7.3 is a transparent sufficiency statement. It places the substantive burden on a real interpretive operation, rather than calling any appeal a repair. A route that requires inaccessible expertise or unavailable work fails its execution premises.

The result also separates an assessment route from an authority to act on it. If the reviewing body cannot affect the contested consequence, the stronger claim of practical answerability remains unestablished. If it can, a reasoned decision may still retain the adopted term.

7.4 Shared Targets And Disagreement

The obstruction and reopening compare the same q . Changing a difficult question into an easier one can produce a successful formal assessment without answering the original challenge. The relevant comparison must therefore identify whether the target was preserved, narrowed or replaced.

There can be good reasons to narrow it. A body with a limited mandate may properly decline to settle a broader question. Its justification should then state the boundary and the consequences for affected participants. The formal failure of a broader target is not automatically a failure of the body's actual undertaking.

Disagreement about q likewise needs to remain visible. An analyst cannot establish the relevance of an assistance distinction by giving it a symbol. The fictional case uses a stated task and explicit premises to make the issue tractable. An actual assessment requires participants' reasons and evidence.

7.5 Response Capacity

The resulting notion of response capacity is local: specified participants can bring a specified issue to an assessment through specified operations. Its historical conditions can change even when the adopted word and formal appeal rule remain unchanged.

The next section develops a complete small example, including a task for which the coarse record is adequate. The later field investigation examines a different mechanism: normalization can change the response itself when local processing is nonlinear. This exceeds the static question of recovering a predefined issue, while retaining the same need for an interpreted target.

8 Adoption Path Countermodels

The finite example in this section isolates an institutional distinction that the adopted record does not retain. It specifies the complete ordinary review repertoire, an additional source-reading operation and a countercase for which ordinary review is adequate. The example is fictional and concerns a declared assessment task; it supplies neither a finding about an actual institution nor a universal definition of assistance.

Table 1: Constructed Review Operations. The source type is retained historically in every row. The comparison concerns which parts become available to the reviewer.

Operation	Available Input	Resulting Review Record
Rephrase	Current category and level	Same category; next level
Confirm	Current category and level	Same category; next level
Transmit	Current category and level	Same category; next level
Open Dossier	Original source and interpreted task	Category, level and source type

8.1 Source Episodes

Let the two source types be A and P . Type A uses enlarged presentation of a written instruction, with its content and inferential demands held fixed. Type P includes a prompt supplying part of the inference the task asks the participant to make. These are explicit premises of the constructed comparison.

The institution currently records both as assisted performance. Each full configuration retains its source type, the original dossier and the sequence of review operations. At ordinary review level k , its record is (assisted, k). The level changes while the source distinction remains absent from this readout.

The selected issue description is $q(x) = A$ or $q(x) = P$, according to the source type retained by configuration x . This asks the review to identify what kind of assistance is involved. It does not ask the review to accept a particular replacement term, waive the task or declare either participant fully competent.

8.2 Ordinary Review Repertoire

Choose a finite review horizon N . At every level $k < N$, three operations are available: rephrase the same institutional record, confirm its current application, or transmit that record to the next ordinary review level. All append their distinct occurrence tags and increment k . All return the same source-independent report category.

The point is not that these operations must behave this way in practice. They define the selected countermodel. If rephrasing actually introduces the pertinent distinction, it would be a different operation and the proof’s premise would fail.

Table 1 states the complete comparison. The source dossier persists under every operation; ordinary review lacks a route that uses its relevant content.

The first three rows satisfy Equation (4). At level N , they are unavailable for both source types. The starting records are identical, and every ordinary review transcript is therefore identical across the two types for a given sequence of choices.

Corollary 7.2 applies at every finite N . More ordinary levels do not make this particular distinction assessable. The statement concerns the fixed repertoire; it leaves open the possibility that a genuinely different review level changes what can be examined.

8.3 Source-Sensitive Reopening

Now add the operation Open Dossier. Its domain requires access to the original material, a competent interpretation of the selected task, available review time and the relevant permissions. The comparison stipulates those conditions for both types.

Its new record retains the source type. The interpretation δ simply reads that component. Thus Equation (5) holds on the two starting configurations. Reopening changes the readout and repertoire together. If the old readout r continues to ignore the source component, the new operation need not violate compatibility relative to r . Instead, define a mode-sensitive readout that reports an unopened status before this operation and includes A or P afterward. The two starting records still agree under that readout, while the successor records differ. It is this expanded operational description that escapes the ordinary repertoire’s closure.

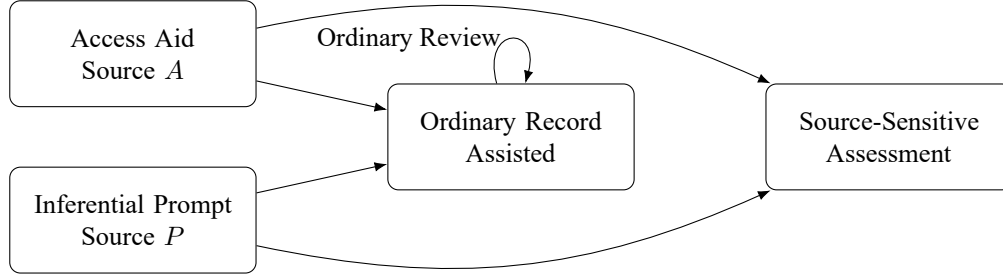


Figure 2: A Constructed Challenge Distinction. Ordinary review retains one category for both source episodes. The outer paths represent an additional interpreted source-reading operation. They require access and support not supplied by the category label itself.

The additional record can be produced by an internal specialist or a separately mandated reviewer. The finite calculation is unchanged if the operation has the same domain and interpretive result. Whether that reviewer has adequate independence, standing and accountability is a further institutional question. Its organizational origin alone does not decide the operational comparison.

Figure 2 shows the distinction between an unchanged ordinary record and source-sensitive assessment. The diagram does not show a forced reversal of the adoption decision.

8.4 An Adequate Coarse Target

Suppose the review's only declared task is to identify whether any of the stipulated forms of assistance occurred. Both source types then have the same appropriate issue description. The original record supplies that answer without further source inquiry.

This counterexample does essential work. It shows that collapsing the two types is not a formal error independently of the purpose. A common report category can be adequate for one undertaking and inadequate for another.

The normative question concerns which undertaking the institution may properly adopt and which consequences it attaches to the record. If its stated reason depends on distinguishing presentation from supplied inference, the coarse target no longer answers that reason. If its defensible purpose genuinely requires only the broader category, additional distinction can be unnecessary for that decision.

8.5 Resources And Refusal

The reopening operation has costs even when it succeeds. It requires material, interpretive work, time and an appropriate recipient. The model does not create these resources by adding a row to the table.

An institution can have reasons to limit repeated requests or to ask for a credible basis before opening a dossier. Those limits should be assessed in relation to the claim of answerability, the importance of the consequence and the work imposed on other participants. The existence of one feasible route does not establish an unlimited duty to use it.

The case also allows a reasoned refusal after the distinction is assessed. The reviewer might find that the original term remains suitable for its limited purpose, while recording the distinction for another decision. Such an outcome differs from a procedure unable to encounter the issue. The paper's formal comparison concerns that difference.

9 Regional Assessment Fields

An institution can retain the same record of terminology usage while changing the procedure through which a challenge receives a differentiated response. The field construction in this section investigates

one possible version of that change: several local assessment channels interact, and their inputs or responses can be pooled at different stages. The objective is to distinguish actual regional interaction from an imposed normalization and to establish the dynamical assumptions needed for the comparison. Section 10 then derives an exact pooling condition, a nonlinear obstruction and a bounded approximation. The model concerns selected response channels during an institutional review episode; authority and the adequacy of interpretation remain questions of the surrounding historical arrangement.

9.1 Interpreted Response Channels

The inherited field formalism distinguishes a history-bearing relational configuration, a local mathematical carrier, a realization of selected response records, and a further law generating those responses. It also requires compatibility of regional restrictions and separates comparison transport from substantive action [6, pp. 27–28, 33–35]. These requirements matter here because an institutional summary may be a perfectly well-defined comparison device while changing what a subsequent assessment can do. Treating a summary as an innocuous restriction would conceal that difference.

Fix a finite set $J = \{1, \dots, n\}$ of assessment sites within one represented institutional history. A site may stand for a retained review setting or an operational channel associated with a particular class of vocabulary uses. The historical representation retains who submitted the materials, the interpretive resources employed, their access conditions and the institution's mandate. The field selects only a response coordinate at each site. Neither the graph below nor its real coordinates replaces that larger object.

For each site i , let $p_i(t) \in \mathbb{R}$ be a declared signed input to a selected assessment channel, and let $z_i(t) \in \mathbb{R}$ be its response coordinate. A substantive application would first identify the contrast, the encoding operation and the procedure by which the response becomes readable. For example, a controlled comparison might encode two directions of adjustment to a specified reporting distinction and record the response of a review interface to those adjustments. The signs would then identify the two directions. They would not measure the quality of a reason, the legitimacy of a term or the competence of its users. The present construction stipulates such a coordinate interface to investigate composition; it does not establish an empirical encoding for a particular terminology body.

This restriction is especially important when opposed inputs occur. Two formulations can raise different concerns that each warrant consideration even when their selected coordinates sum to zero. An aggregate of those coordinates can be accurate as an aggregate and inadequate as a dossier of the reasons. Conversely, a target concerned only with a particular aggregate adjustment may legitimately discard distinctions irrelevant to that target. The calculation therefore compares response operations with declared inputs, rather than ranking the substantive claims that motivated them.

The same observed usage history can be assigned to each compared arrangement. Usage does not enter the response law as a proxy for justification. Holding its record fixed asks whether that record determines the selected response organization. It does not assert that actual usage is causally independent of every review procedure. A coupled empirical account would have to identify those further relations.

9.2 Nonlinear Response Specification

Let G be an undirected graph on J , with symmetric weights $w_{ij} \geq 0$, $w_{ii} = 0$, and unordered edge set $E(G)$. An edge represents one declared channel of interaction among the retained assessment sites. The weight describes the strength of that interaction within this illustrative realization. For a vector $z \in \mathbb{R}^n$, define the graph Laplacian L_G and the response law by Equation 6.

$$(L_G z)_i = \sum_{j \in J} w_{ij} (z_i - z_j), \quad (6)$$

$$\dot{z}_i = -D(L_G z)_i - a z_i - z_i^3 + p_i(t), \quad i \in J, \quad a > 0, \quad D \geq 0.$$

The initial vector $z(0) = z^0$ belongs to $\mathbb{R}^n$. The input $p : [0, \infty) \rightarrow \mathbb{R}^n$ is piecewise continuous and uniformly bounded. Coordinates, time and coefficients are dimensionless for this constructed comparison. No numerical parameter is estimated from an institutional document.

The restoring term $az_i + z_i^3$ specifies increasing resistance to a large response magnitude. At an isolated site with constant input, the equilibrium relation is $p_i = az_i + z_i^3$. Its inverse has derivative $1/(a+3z_i^2)$, so additional input produces a smaller incremental equilibrium response at larger magnitudes. This is response compression, not a postulate that institutions judge reasons cubically. The polynomial permits an exact calculation of the residual produced by pooling. A later comparison identifies the larger class of response laws supporting the same obstruction and an affine law for which it disappears.

The diffusion term specifies mutual adjustment among the operational coordinates. Such adjustment may occur through a common review infrastructure, cross-checking or another independently identified interface. It is a model choice, not a claim that interpretive influence always flows symmetrically. Directed influence, role-dependent coefficients and evolving graph structure would require separate analyses. The undirected law is useful because its regional balance is exact and its effect on unresolved contrasts can be bounded without replacing interaction by a scalar measure of authority.

Proposition 9.1 (Bounded Contracting Assessment Response). *Equation 6 has a unique global solution for each stated input and initial vector. Solutions driven by the same input contract at least at rate a in the Euclidean norm. For a constant input there is one equilibrium, and every solution converges to it at least at that rate.*

Proof. Let $P_0 = \sup_{t,i} |p_i(t)|$, and choose $M \geq \|z^0\|_\infty$ satisfying $aM + M^3 \geq P_0$. At an upper face $z_i = M$ of the cube $[-M, M]^n$, the diffusion term is nonpositive and the remaining derivative is at most $-aM - M^3 + P_0 \leq 0$. At a lower face $z_i = -M$, diffusion is nonnegative and the remaining derivative is at least $aM + M^3 - P_0 \geq 0$. Thus the cube is invariant. The locally Lipschitz state law gives uniqueness between input discontinuities, continuous joining gives the piecewise-driven solution, and the invariant bound prevents finite-time escape.

For two solutions $z, \tilde{z}$ with the same input, write $\delta = z - \tilde{z}$, and use $\|\cdot\|_2$ for the Euclidean norm. The difference satisfies Equation 7.

$$\begin{aligned} \frac{1}{2} \frac{d}{dt} \|\delta\|_2^2 &= -D \sum_{\{i,j\} \in E(G)} w_{ij} (\delta_i - \delta_j)^2 - a \|\delta\|_2^2 \\ &\quad - \sum_i (z_i - \tilde{z}_i)(z_i^3 - \tilde{z}_i^3) \leq -a \|\delta\|_2^2, \\ \|\delta(t)\|_2 &\leq e^{-at} \|\delta(0)\|_2. \end{aligned} \tag{7}$$

Each cubic product is nonnegative because the cube function is increasing. Integration gives the second part of Equation 7, including the case where the initial difference vanishes.

For constant p , define the potential in Equation 8, counting each undirected edge once.

$$\mathcal{V}_p(z) = \frac{D}{2} \sum_{\{i,j\} \in E(G)} w_{ij} (z_i - z_j)^2 + \frac{a}{2} \sum_i z_i^2 + \frac{1}{4} \sum_i z_i^4 - \sum_i p_i z_i, \quad \dot{z} = -\nabla \mathcal{V}_p(z). \tag{8}$$

The quartic term makes the potential coercive. Its Hessian is $DL_G + aI + 3 \text{diag}(z_i^2)$, where I is the identity matrix, and is bounded below by aI . The potential therefore has a unique minimizer z^* , which is the unique equilibrium. Comparing any solution with the constant solution z^* in Equation 7 establishes the convergence assertion. $\square$

Proposition 9.1 supplies a controlled response problem. It ensures that the later comparison does not depend on an unacknowledged instability or an arbitrarily chosen equilibrium. The potential is an analytical device for this law. Its decline measures neither improving reasons nor increasing institutional legitimacy. Likewise, contraction says that two response states driven by the same input approach each other; it does not show that different proposals deserve the same judgment.

9.3 Regional Boundary Traces

A region $R \subseteq J$ retains some assessment sites. Its actual response depends on the channels crossing its boundary. Let L_R denote the Laplacian of the induced graph, with only edges joining two sites of R . Restricting a solution of Equation 6 gives Equation 9.

$$\dot{z}_i = -D(L_R z_R)_i - a z_i - z_i^3 + p_i + D \sum_{j \notin R} w_{ij}(z_j - z_i), \quad i \in R. \quad (9)$$

The last term preserves the actual incoming boundary traces $z_j(t)$. Equation 9 satisfies the inherited restriction requirement because the boundary contributions remain part of the regional description. If $R_1 \subseteq R_2$, its crossing edges divide into those reaching $R_2 \setminus R_1$ and those reaching $J \setminus R_2$. Restricting first to R_2 and then to R_1 consequently retains exactly the same terms as direct restriction.

Deleting the crossing term changes the response arrangement. It can represent a severed review interface, but it cannot establish what the original region would do in its actual surroundings. This distinction bears directly on local availability: a participant may have a usable assessment practice locally while the institution's processing route fails to carry its relevant response further. A local field calculation identifies only its declared channels; the competent institutional destination and its action domain still need a historical witness.

Boundary sensitivity can also be controlled. Prescribe two exterior traces $\eta_j(t)$ and $\tilde{\eta}_j(t)$, retain the same interior proposal input, and let $z_R, \tilde{z}_R$ solve the two regional problems. Equation 10 defines the incoming discrepancy bound.

$$b(t) = \max_{i \in R} \sum_{j \notin R} w_{ij} |\eta_j(t) - \tilde{\eta}_j(t)|. \quad (10)$$

Their response discrepancy obeys Equation 11.

$$\|z_R(t) - \tilde{z}_R(t)\|_\infty \leq e^{-at} \|z_R(0) - \tilde{z}_R(0)\|_\infty + D \int_0^t e^{-a(t-s)} b(s) ds. \quad (11)$$

To derive Equation 11, take a coordinate attaining the largest absolute difference and multiply its difference equation by that coordinate's sign. Interior diffusion is nonpositive at this extremum, the cubic difference has the opposing sign, and exterior edges add nonnegative damping to the interior difference. The remaining exterior forcing is at most $Db(t)$. The upper right derivative of the maximum norm is therefore at most $-a$ times that norm plus $Db(t)$; multiplying by e^{at} and integrating proves the bound.

This bound allows an approximate regional account when the omitted boundary uncertainty is itself controlled. A missing account of the boundary cannot be repaired by calling the region autonomous. In particular, a usage record restricted to R does not supply the incoming assessment traces merely because both records concern the same adopted terminology.

9.4 Institutional Pooling Operations

Pooling is a further operation, distinct from regional restriction. Partition J into nonempty blocks $C_1, \dots, C_k$, and let $n_\alpha = |C_\alpha|$. Define averaging $R_c : \mathbb{R}^n \rightarrow \mathbb{R}^k$, constant embedding $E_c : \mathbb{R}^k \rightarrow \mathbb{R}^n$, and the resulting projection P_c by Equation 12.

$$(R_c z)_\alpha = \frac{1}{n_\alpha} \sum_{i \in C_\alpha} z_i, \quad (E_c y)_i = y_\alpha \quad (i \in C_\alpha), \quad P_c = E_c R_c. \quad (12)$$

Equation 12 specifies which selected distinctions are discarded: variations within a block. It retains their arithmetic mean and permits reconstruction only as a blockwise-constant vector. This linear projection is one possible institutional normalization, not a general definition of translation. Its domain and meaning must already be warranted by the coordinate interface.

Two processing arrangements can now be compared. One presents the detailed input to the regional field and reads $R_c z(t)$ after processing. The other replaces the detailed input by its block averages before processing. They can use identical sites, identical coefficients and identical recorded usage. Their difference concerns the order at which a declared contrast becomes unavailable to subsequent operations.

The second arrangement can be an appropriate economy when its target is invariant under the discarded contrasts. It can fail when nonlinear response depends on those contrasts. The next section establishes both possibilities. Neither the existence of a discrepancy nor an exact pooling condition supplies a complete authority judgment. Normative Formation already distinguishes functionally useful stabilization from restrictions on later intelligibility and contestability [5, pp. 19–24, 42–44]. The field calculation makes one selected compatibility question explicit within that inherited distinction.

10 Institutional Response Dynamics

The regional response model permits a precise comparison of normalization before assessment with pooling after assessment. This section first establishes a positive compatibility condition, then derives the unresolved nonlinear terms when that condition fails. A three-site construction proves a discrepancy with zero pooled input, and contraction converts its equilibrium calculation into a finite observation criterion. The final comparisons locate the role of the response law and the limits of the institutional inference. The results concern the declared response coordinates of Section 9; substantive assessment and justified authority require the additional interpretive and practical conditions developed elsewhere in the paper.

10.1 Compatible Block Response

The partition used in Equation 12 is called equitable here when each site in a block has the same total edge weight to every other block. More precisely, for $\alpha \neq \beta$, the number $b_{\alpha\beta} = \sum_{j \in C_\beta} w_{ij}$ is required to be independent of the choice of $i \in C_\alpha$. Define the quotient Laplacian $L_c : \mathbb{R}^k \rightarrow \mathbb{R}^k$ by Equation 13.

$$(L_c y)_\alpha = \sum_{\beta \neq \alpha} b_{\alpha\beta} (y_\alpha - y_\beta), \quad (13)$$

$$L_G E_c = E_c L_c, \quad R_c L_G = L_c R_c, \quad n_\alpha b_{\alpha\beta} = n_\beta b_{\beta\alpha}.$$

For a blockwise-constant vector, internal edges contribute zero, and summing the external edges proves the first intertwining identity in Equation 13. Because L_G is symmetric and its block-constant subspace is invariant, the orthogonal complement is also invariant. Thus P_c commutes with L_G , which proves the second identity after applying R_c . The last equality counts the same interblock edges from their two ends. Consequently L_c is self-adjoint for the inner product $\sum_\alpha n_\alpha x_\alpha y_\alpha$; unequal block sizes generally prevent symmetry in the unweighted coordinates.

Proposition 10.1 (Exact Block Response). *Suppose the partition is equitable, $z^0 = E_c y^0$, and $p(t) = E_c \pi(t)$ for a piecewise continuous bounded input $\pi : [0, \infty) \rightarrow \mathbb{R}^k$. The full solution is $z(t) = E_c y(t)$, where the block response satisfies Equation 14. In particular, $R_c z(t) = y(t)$ for every time.*

$$\dot{y} = -D L_c y - a y - y^{[3]} + \pi(t), \quad y(0) = y^0. \quad (14)$$

Here and below $y^{[3]}$ means the coordinatewise cube.

Proof. Constant embedding preserves the cube: $(E_c y)^{[3]} = E_c (y^{[3]})$. Substituting $E_c y$ into Equation 6 and using Equation 13 therefore gives E_c applied to Equation 14. The initial conditions also agree. Uniqueness from Proposition 9.1 identifies this embedded solution with the full one, and $R_c E_c$ is the identity on $\mathbb{R}^k$. $\square$

Proposition 10.1 is a positive response-preservation result. Sites within a block can be handled through a common channel when their represented inputs and initial responses are identical and their external couplings have the stated compatibility. The proof does not require every site to be isolated or the response law to be linear. Nonlinear local processing survives because the retained subspace is closed under that processing.

The scope of the result also explains its institutional use. A common form can preserve a selected response when the task actually supplies the relevant homogeneity and interface conditions. Its adequacy does not follow from the form's standard status. If two participants use the same input coordinate to express materially different concerns, the interpretive interface has already discarded a target distinction before this proposition applies. Exactness inside the selected carrier cannot repair that earlier omission.

10.2 Unresolved Regional Contrasts

For an arbitrary full response, let $\mu = R_c z$ and $r = z - E_c \mu$. The vector r is the within-block residual and has mean zero in each block. Define its second and third block moments by $s_\alpha^2 = n_\alpha^{-1} \sum_{i \in C_\alpha} r_i^2$ and $t_\alpha^3 = n_\alpha^{-1} \sum_{i \in C_\alpha} r_i^3$. These symbols denote moments; t_α^3 can be negative and introduces no additional clock. For an equitable partition, averaging the full law gives Equation 15.

$$\begin{aligned}\dot{\mu} &= -DL_c \mu - a\mu - \mu^{[3]} + R_c p - \xi, \\ \xi_\alpha &= 3\mu_\alpha s_\alpha^2 + t_\alpha^3.\end{aligned}\tag{15}$$

To obtain Equation 15, expand $(\mu_\alpha + r_i)^3$ and average over the block. The term linear in r_i vanishes, leaving $\mu_\alpha^3 + 3\mu_\alpha s_\alpha^2 + t_\alpha^3$. The quotient identity handles diffusion exactly. Thus ξ records a specific failure of coarse closure even when the graph itself permits exact linear aggregation.

The premature-pooling response y solves Equation 14 with $\pi = R_c p$ and $y^0 = R_c z^0$. Comparing it with Equation 15 reveals what the normalized input omits. The same coarse proposal history can coexist with different residual moment histories, which influence the subsequent coarse response. A new autonomous equation for those moments would require its own closure argument. The present calculation retains them as quantities determined by the full trajectory.

An approximation is nevertheless available. Suppose $|z_i(t)| \leq M$ and $|r_i(t)| \leq e_0$ for all sites and $0 \leq t \leq T$, where $e_0 \geq 0$ is a declared bound. Then $|\mu_\alpha| \leq M$, $s_\alpha^2 \leq e_0^2$ and $|t_\alpha^3| \leq e_0^3$. The resulting response error is bounded in Equation 16.

$$\|\mu(t) - y(t)\|_\infty \leq \int_0^t e^{-a(t-s)} \|\xi(s)\|_\infty ds \leq \frac{3Me_0^2 + e_0^3}{a} (1 - e^{-at}), \quad 0 \leq t \leq T. \tag{16}$$

At a coordinate of maximum absolute difference, quotient diffusion cannot increase that maximum because each $b_{\alpha\beta}$ is nonnegative. The cubic difference opposes its sign, leaving an upper derivative at most $-a\|\mu - y\|_\infty + \|\xi\|_\infty$. Integration from the equal initial values proves the first inequality in Equation 16; the moment bounds prove the second.

The residual bound can itself reflect regional coupling. Let $Q_c = I - P_c$, suppose $Q_c \neq 0$, and define $\lambda_\perp$ as the minimum of $r^\top L_G r / \|r\|_2^2$ over nonzero r in the range of Q_c . Equitability makes that range invariant. Put $\gamma = a + D\lambda_\perp > 0$. The residual satisfies Equation 17.

$$\|r(t)\|_2 \leq e^{-\gamma t} \|r(0)\|_2 + \int_0^t e^{-\gamma(t-s)} \|Q_c p(s)\|_2 ds. \tag{17}$$

For the derivation, apply Q_c to the full law and take the inner product with r . Orthogonality removes P_c from the cubic pairing. Within each block, $\sum_i r_i z_i^3 = \sum_i r_i (z_i^3 - \mu_\alpha^3) \geq 0$, because $r_i = z_i - \mu_\alpha$ and the cube function is increasing. The diffusion term is bounded above by $-D\lambda_\perp \|r\|_2^2$, and Cauchy-Schwarz bounds the input pairing. Scalar comparison, with continuity at a zero residual, yields Equation 17.

Since $\|r\|_\infty \leq \|r\|_2$, this estimate can supply e_0 in Equation 16. If the graph is connected, the residual is orthogonal to the global constant vector, and $\lambda_\perp$ is at least the smallest positive Laplacian

eigenvalue. Stronger coupling can therefore support a controlled approximation for bounded contrasting inputs. The estimate concerns magnitude in this coordinate model. It does not establish that a small numerical discrepancy is unimportant to the substantive challenge.

10.3 Three-Site Response Order

A complete three-site graph gives an exact obstruction with especially simple inputs. Give every edge unit weight, retain one block containing all sites, take $z^0 = 0$, and impose the constant input $p = (2, -1, -1)$. The pooled input is zero, so premature pooling produces the identically zero response. The detailed field has a unique equilibrium by Proposition 9.1. Symmetry between the second and third sites makes its form $z^* = (m + 2d, m - d, m - d)$, where m is its mean and $3d$ is the first-to-second-site difference.

Proposition 10.2 (Three-Site Pooling Discrepancy). *For the stated three-site construction, the detailed equilibrium has $m < 0$ for every finite $D \geq 0$. Its mean therefore differs from the zero response produced by premature pooling. The discrepancy satisfies Equation 18.*

$$\begin{aligned} d[a + 3D + 3(m^2 + md + d^2)] &= 1, \\ m(a + m^2 + 6d^2) &= -2d^3, \\ 0 < d &\leq \frac{1}{a + 3D}, \quad 0 < -m \leq \frac{2}{a(a + 3D)^3}. \end{aligned} \tag{18}$$

Proof. Subtract the equilibrium equation at site two from the equation at site one. The complete-graph diffusion multiplies their difference by $3D$, and the input difference is 3. Dividing by three and expanding the cube gives the first equality in Equation 18. Its bracket is strictly positive, so $d > 0$, and dropping the nonnegative quadratic term gives the bound on d .

The sum of the three equilibrium equations has zero diffusion and zero input. The average cube is $m^3 + 6md^2 + 2d^3$. This yields the second equality in Equation 18. Its coefficient of m is positive, so $m < 0$. Finally, $-m = 2d^3/(a + m^2 + 6d^2) \leq 2d^3/a$; combining the bounds gives the last inequality. $\square$

Proposition 10.2 makes the nonlinear mechanism visible. The two negative inputs have a different distribution of magnitudes from the positive input. Local response compression changes their balance before aggregation. The output difference does not come from a different mean input, graph, initial state or usage record. It comes from preserving the regional distribution long enough for the nonlinear response to act on it.

The coupling parameter also has an explicit role. Equation 18 bounds the mean discrepancy by a quantity tending to zero at inverse-cubic order as D grows. The bound does not assert strict monotonicity of the discrepancy at every intermediate parameter value. It establishes that sufficiently strong interaction suppresses this particular aggregate diagnostic. Every finite coupling still gives a nonzero mean in the exact construction; a finite-resolution instrument can lose the distinction earlier.

Figure 3 compares the response histories. The values are illustrative solutions of the declared law. The proof, rather than the plot, establishes the sign for all finite D .

A finite observation condition follows from the contraction result. Let $m < 0$ be the detailed equilibrium mean and let $\varepsilon > 0$ bound absolute error in each scalar response readout. Suppose $2\varepsilon < |m|$. Equation 19 gives a sufficient time-dependent separation condition.

$$\left| \frac{1}{3} \sum_i z_i(t) - m \right| \leq \frac{e^{-at}}{\sqrt{3}} \|z^*\|_2, \quad \frac{e^{-at}}{\sqrt{3}} \|z^*\|_2 < |m| - 2\varepsilon. \tag{19}$$

The first inequality in Equation 19 follows by applying the averaging functional to the contraction bound from $z^0 = 0$. Under the strict second inequality, the actual pooled response has magnitude greater than 2ε . Its closed error interval of radius ε is then disjoint from the corresponding interval around zero.

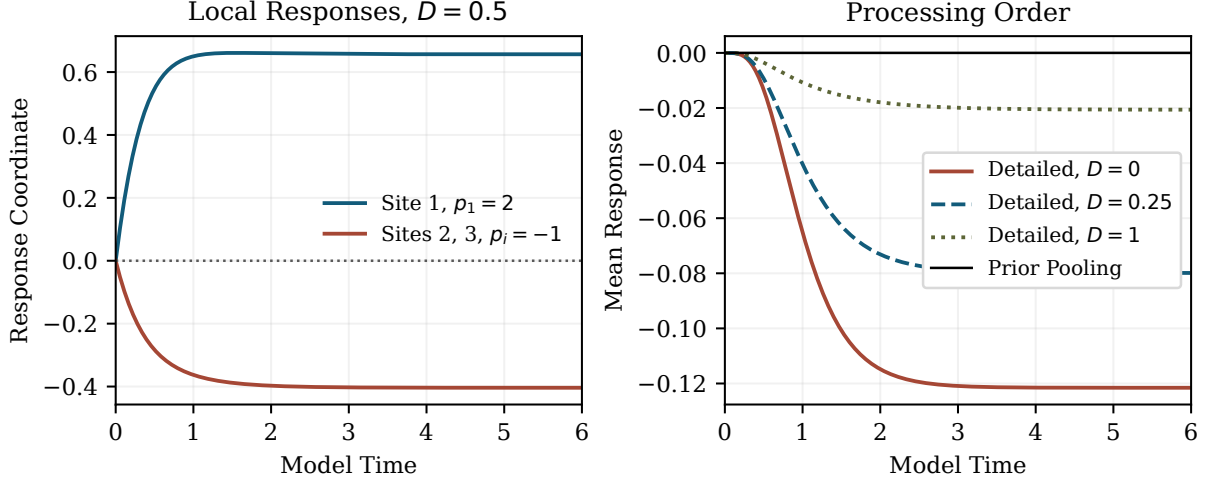


Figure 3: Three-Site Assessment Response. The detailed input is $(2, -1, -1)$, the initial response is zero, and $a = 1$. Premature pooling produces zero input and zero response. Detailed processing retains distinct local responses and a nonzero pooled response. Coordinates are illustrative operational channels.

Since the exponential tends to zero, such a finite time exists whenever the stipulated error bound meets the stated margin.

This result establishes distinguishability of the two selected response records. A practical review can nevertheless run out of time before the margin is achieved, lack the instrument or competence to read it, or apply an assessment target that needs the separate local responses. Those are substantive limits on the proposed route. They are not removed by the existence of a distinguishable scalar aggregate.

10.4 Response-Law Comparisons

The sign discrepancy is not confined to the cubic formula. Replace $az + z^3$ at each site by an odd continuously differentiable function $\phi : \mathbb{R} \rightarrow \mathbb{R}$, assume $\phi'(x) \geq a > 0$, and require strict convexity on the positive half-line. Strong monotonicity supplies an invariant bound, a coercive strictly convex potential and the same contraction argument. At the three-site equilibrium, subtracting the first two equations gives $3D(x - y) + \phi(x) - \phi(y) = 3$, where the equilibrium is (x, y, y) . Hence $x > y$. Write $x = m + 2d$, $y = m - d$, with $d > 0$.

If $m \geq 0$, monotonicity would give $\phi(x) + 2\phi(y) \geq \phi(2d) - 2\phi(d) > 0$. The strict inequality follows from $\phi(0) = 0$ and strict convexity between 0 and $2d$. But summing the equilibrium equations requires this sum to be zero. Thus $m < 0$ throughout this response class. The argument uses increasing resistance and asymmetric regional input magnitudes; it does not say that every nonlinear response exhibits the same effect.

An affine restoring law supplies a useful counterexample. With $\phi(z) = az$, one-block averaging on any undirected graph gives the exact scalar equation $\dot{m} = -am + \bar{p}$, where $\bar{p} = n^{-1} \sum_i p_i$. It holds for heterogeneous inputs and initial states because diffusion cancels on summation and the restoring term commutes with averaging. In the three-site example the mean therefore remains zero. A linearized approximation would remove the very discrepancy the nonlinear construction investigates.

Figure 4 locates the scope of approximate pooling. Its coupling plot displays the exact equilibrium discrepancy and its proved bound. Its block comparison shows the measured response error below the moment-based bound from Equation 16. A conservative bound can be useful as a sufficient certificate even when it overestimates the actual error; interpreting a tolerance still belongs to the selected institutional task.

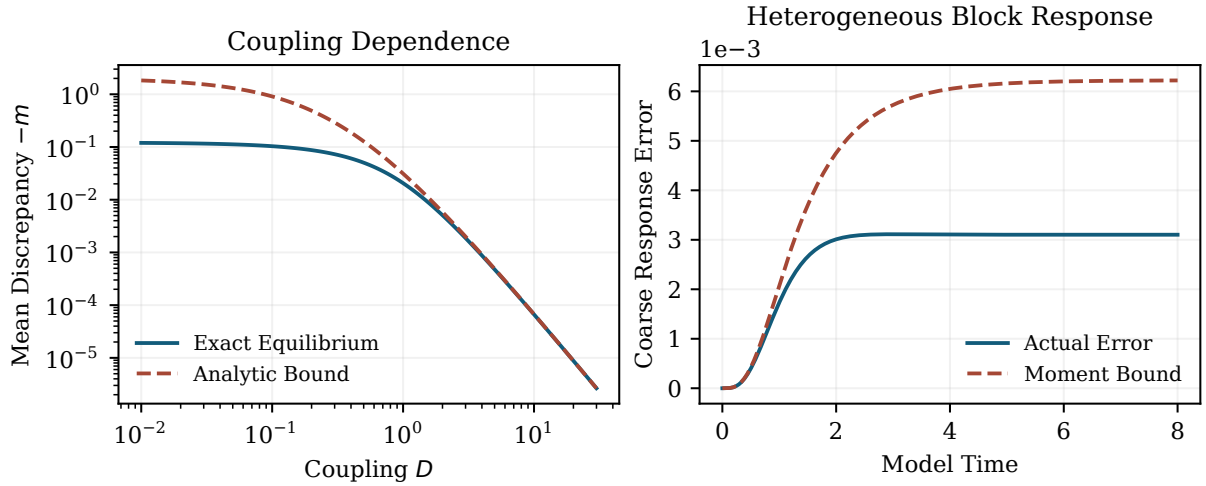


Figure 4: Regional Pooling Diagnostics. Left: the three-site equilibrium mean discrepancy and its analytic coupling bound. Right: a heterogeneous equitable-block example comparing the actual coarse response error with the bound obtained from the unresolved moments. These are model comparisons, not measurements of institutional authority.

10.5 Institutional Response Scope

The calculation supports a bounded inference about processing order. A normalization can retain an institution's preferred summary while removing distinctions on which a later response depends. A compatible normalization can also preserve the selected response exactly or within a declared tolerance. These alternatives give substantive content to the requirement that a shared vocabulary be assessed relative to its operations and targets.

Neither alternative establishes a general duty to preserve every contrast. The field input is already an interpreted representation, and its response can be irrelevant to a legitimate institutional task. A competent review may consider the fuller dossier and reject the proposed terminology change. Conversely, a nonzero field response can be produced without the relevant concern ever receiving competent consideration. The historical account must establish what the response means, where it can enter, who can act on it and what reasons support the resulting decision.

The generic obstruction to recovering a target from an insufficient coarse record is inherited from prior formal work [9, Section 11]; the present contribution is a selected nonlinear realization with an explicit residual, a positive compatibility result and controlled observation bounds. The nonlinear state flow remains a map on configurations. An algebraic pullback on observables can be linear without making that state flow linear. Keeping these levels distinct permits the response calculation to join the paper's history and operation analysis while preserving its limited representational role.

11 Adoption Operation Algebra

The algebraic investigation concerns what an institutional record can continue to determine after available operations. It connects the finite review model to the nonlinear field without identifying their objects. The first construction treats bounded functions on historical configurations. The second treats continuous functions on a compact field carrier. Both distinguish a linear operation on observables from the possibly nonlinear transformation being observed. Their general closure criterion is inherited from the prior interface-substitution study [9, Section 11]; the present task is to establish its specific adoption interpretations and their limits.

11.1 Historical Record Observables

Return to the carrier X , readout $r : X \rightarrow R$ and partial actions $f_a : D_a \rightarrow X$ of Section 6. We may replace R by $r(X)$, since unoccupied records play no role here. Let $\ell^\infty(X)$ be the complex-valued bounded functions on X , equipped with pointwise addition and multiplication, the supremum norm and complex conjugation as involution. For finite X , this is the algebra of all complex functions on its elements. The record-determined subalgebra is defined in Equation (20).

$$\mathcal{A}_r = \{g \circ r : g \in \ell^\infty(R)\} \subseteq \ell^\infty(X). \quad (20)$$

Equation (20) consists exactly of the bounded functions constant on each fibre of r . It specifies mathematical determination by a record. It does not assert that every such function is already interpretable, inexpensive to evaluate or officially recognized. A computer-stored identifier may determine a difference without giving any participant a usable account of it.

Each partial action defines a zero-extended pullback on observables. Its value outside the execution domain marks non-execution in this representation.

$$(U_a F)(x) = \begin{cases} F(f_a(x)), & x \in D_a, \\ 0, & x \notin D_a. \end{cases} \quad U_a 1 = \mathbf{1}_{D_a}. \quad (21)$$

Here 1 is the constant unit function and $\mathbf{1}_{D_a}$ the indicator of the domain. Equation (21) gives a bounded linear map of norm at most one. Direct evaluation shows that it preserves multiplication and complex conjugation: on its domain this follows from composition, and outside its domain both sides of each identity vanish. It is generally nonunital. A recorded refusal is therefore best represented by an available action with a refusal outcome, rather than by quietly identifying refusal with the zero outside the domain.

The source action need not be linear. Indeed, a historical operation typically appends a new occurrence to a configuration that is not even a vector. Linearity of U_a describes addition of functions, not addition of participants, reasons or institutional decisions. The distinction is essential to the present use of operator tools.

11.2 Availability And Algebraic Closure

Call D_a record-saturated if membership in D_a is constant on every fibre of r . The following result includes this availability condition rather than silently assuming that every action is total.

Proposition 11.1 (Partial Record Closure). *For an action a , $U_a(\mathcal{A}_r) \subseteq \mathcal{A}_r$ holds if and only if D_a is record-saturated and $r(f_a(x)) = r(f_a(x'))$ whenever $x, x' \in D_a$ have $r(x) = r(x')$.*

Proof. Suppose the subalgebra is invariant. Its unit belongs to $\mathcal{A}_r$, so $U_a 1 = \mathbf{1}_{D_a}$ is constant on record fibres. This proves saturation. For any $s \in R$, the record indicator $F_s = \mathbf{1}_{\{s\}} \circ r$ also belongs to $\mathcal{A}_r$. Its pullback has equal values at two available states with the same initial record. If their successor records differed, the indicator of one of those records would give values one and zero, a contradiction.

Conversely, saturation determines availability from the record. On an available fibre, the successor record has a unique value. For $F = g \circ r$, define $\tilde{g}(s)$ to be the value of g at that successor record when s is available, and zero otherwise. This is a bounded function on R , and $U_a F = \tilde{g} \circ r$. Hence the subalgebra is invariant. $\square$

Proposition 11.1 is the algebraic form of the record-compatibility condition in Section 6. The proof deliberately exhibits the domain indicator: preservation of successor records alone would miss a procedure whose very availability distinguishes two otherwise identical records.

For a word $w = a_1 \cdots a_k$, executed in that order, the state map is $f_w = f_{a_k} \circ \cdots \circ f_{a_1}$ on its sequential domain. Pullback reverses composition, as recorded in Equation (22).

$$U_w = U_{a_1} \cdots U_{a_k}, \quad U_w 1 = \mathbf{1}_{D_w}. \quad (22)$$

Equation (22) follows by evaluating successive pullbacks: a failed prefix sets the value to zero, while a fully executable word evaluates the observable at its terminal configuration. Thus invariance under each permitted action entails invariance under every finite word. A record-based policy can branch among these words, but the identical transcripts established earlier prevent it from selecting different branches on two initially indistinguishable source episodes.

In the assistance example, the indicator of the original access-aid episode is outside $\mathcal{A}_r$: it takes distinct values on the two histories with the same assisted-performance record. Repeated rephrasing, confirmation and transmission remain inside the record algebra. The obstruction is not the absence of another operation name. It is the persistence of the same informational restriction through the operations that the name permits.

11.3 Enlarged Assessment Records

An original dossier can retain a distinction without placing it inside the current review record. Section 8 represents reopening by an available operation and a richer interpreted readout. Algebraically, adjoining the source-issue readout q gives the carrier map $r^+ = (r, q)$ and Equation (23).

$$\mathcal{A}_r \subseteq \mathcal{A}_{r^+}, \quad r^+(x) = (r(x), q(x)). \quad (23)$$

The inclusion in Equation (23) is strict when q differs on an r -fibre. A suitable indicator of the q -value then belongs to the larger algebra and not the smaller one. This is a precise gain in record discrimination.

That inclusion is not yet an available institutional improvement. It can describe an analyst's extra knowledge, a restricted archive or a costly investigation beyond the institution's mandate. The reopening witness of Section 7 adds the missing operational conditions: the operation executes on the relevant starting states, the resulting distinction can be interpreted, and the selected source question is recovered. Whether a body may appropriately act on that finding requires the separate authority argument.

Nor does an algebraic inclusion order institutions by legitimacy. A broader record can be unnecessary for the announced task, unacceptably intrusive or misleadingly precise. Conversely, a small record may suffice for a limited coordination purpose. The question is whether the information needed for the particular undertaking can reach a justified assessment, not whether one institution stores a maximal collection of observables.

11.4 Nonlinear Response Pullbacks

For the field comparison, fix the graph, $a > 0$ and $D \geq 0$ from Section 9. Treat p as constant during an episode and include it in the state. Choose a finite input bound P_0 and $M > 0$ with $aM + M^3 \geq P_0$. The compact carrier $\mathcal{B} = [-M, M]^n \times [-P_0, P_0]^n$ contains pairs (z, p) . The invariant-box argument makes the extended flow $\Phi_t(z, p) = (z(t; z, p), p)$ forward invariant on $\mathcal{B}$. Polynomial local regularity and global boundedness give a jointly continuous forward flow.

The algebra $C(\mathcal{B})$ contains continuous complex-valued observables. Its response pullback is stated in Equation (24).

$$\alpha_t F = F \circ \Phi_t, \quad \alpha_{t+s} = \alpha_t \alpha_s, \quad \alpha_t 1 = 1. \quad (24)$$

Equation (24) defines linear, multiplicative, involution-preserving operators. Joint continuity on compact time intervals gives strong continuity in the supremum norm. Invertibility is unnecessary. The nonlinear cubic term in the underlying response remains present; the pullback construction does not replace it with a linear state equation.

Use the block-average map R_c from Section 9. Define the coarse readout $\Pi(z, p) = (R_c z, R_c p)$, with image $Y = \Pi(\mathcal{B})$. Its continuous observable subalgebra is $\mathcal{A}_\Pi = \{g \circ \Pi : g \in C(Y)\}$. The inherited closure criterion is expressed by Equation (25).

$$\alpha_t(\mathcal{A}_\Pi) \subseteq \mathcal{A}_\Pi \iff \Pi \Phi_t = \psi_t \Pi \text{ for a continuous } \psi_t : Y \rightarrow Y. \quad (25)$$

For completeness, if the algebra is invariant, every continuous function of the evolved coarse record takes equal values on each initial Π -fibre. Continuous functions separate the points of compact Y , so the evolved coarse record is itself constant on those fibres. This defines ψ_t . The continuous surjection Π from compact $\mathcal{B}$ to Hausdorff Y is a quotient map, so ψ_t is continuous. Conversely, the factorization gives $\alpha_t(g \circ \Pi) = (g \circ \psi_t) \circ \Pi$, proving invariance. When closure holds for every $t \geq 0$, the flow identities descend through Π . This establishes Equation (25) without treating a remembered quotient principle as a new result.

11.5 Response-Order Defects

For the complete three-site graph, choose the one-block average and $P_0 \geq 2$, with M satisfying the stated invariant-box bound. The extended initial states $(0, (2, -1, -1))$ and $(0, 0)$ have the same Π -record. The null input remains at zero. Proposition 10.2 shows that the other input converges to an equilibrium with strictly negative mean response for every finite D . Hence their coarse responses differ at some finite time. Equation (25) fails on any carrier containing both trajectories.

This comparison distinguishes two operations often verbally combined as simplification. Observing the average after the original dynamics leaves the contextual inputs active. Replacing those inputs by their average before the dynamics changes the response problem. The second operation is an intervention on the selected model, not merely another notation for its solution. The moment residual derived in Section 10 identifies exactly what the coarse law omits.

There is also a positive restricted case. For an equitable partition, retain only block-constant initial fields and block-constant inputs. Proposition 10.1 shows that this subcarrier is invariant and the quotient law is exact. The coarse observable algebra therefore closes there. Approximate closure for a wider carrier requires the stated residual and error bounds; equality cannot be inferred merely because the observed differences are small.

The algebraic comparison gives a disciplined GR translation. A selected boundary record can remain adequate for one continuation and inadequate for another. Historical occurrence, field restriction, record compression and institutional action have different mathematical roles. Their compatibility must be demonstrated for the chosen operation class. None of these formal distinctions supplies an independent ranking of the participants' claims or a complete theory of legitimate authority.

12 Documented Adoption Arrangements

Institutional documents make selected parts of a vocabulary arrangement explicit: its purpose, the remit of particular bodies, the status of proposals and the handling of later concerns. This section examines three primary documents to distinguish those operations. A historical procedure for chemical recommendations, an amended online zoological code and dated Welsh place-name guidance provide contrasting cases. Each document is read within its stated scope. The subsequent comparisons are analytical constructions; they do not report measured effects of the institutions or assess particular contested decisions.

The evidence has a precise limitation. A published rule can establish that a review operation is specified and identify the role empowered to perform it. Additional evidence is needed to determine whether a particular participant can reach that role, preserve the pertinent content of a concern, obtain a response and act on it. An institution might satisfy these conditions through resources described elsewhere. Conversely, a detailed procedure might be difficult to execute in a particular episode. The comparison therefore avoids classifying a whole institution as open or closed from its rule text.

These cases also differ in the force of their outputs. A recommendation, a nomenclatural ruling and advisory guidance can support different reasons for use. None of the three documents establishes unrestricted authority over language. The relevant comparison concerns how a specified vocabulary decision acquires a role within a bounded practice and what remains available after that decision.

12.1 Chemical Recommendation Review

The International Union of Pure and Applied Chemistry's procedure dated 2009 and revised on 6 November 2012 distinguishes technical reports from recommendations. Recommendations concern consistent terminology and related conventions in specified scientific fields. The procedure separates divisional responsibility, specialist review, public comment, author revision and final approval. For recommendations, public comments are directed to the task-group chair and circulated for consideration; final approval involves the responsible Division President and officers of the Interdivisional Committee on Terminology, Nomenclature and Symbols. The document also contains distinct ordinary-comment instructions and a longer safeguard for controversial recommendations [14, pp. 1–3]. This is a historical procedure, identified by its internal revision date. The later upload date supplies no evidence that its instructions were newly issued then. The analysis makes no claim that these timings describe current practice or that a particular submitted comment changed an outcome.

The procedural separation supports a limited conceptual conclusion. Producing a technically promising proposal, admitting it to consultation and approving its publication are distinguishable acts. A comparison of two arrangements should retain these distinctions even if both eventually publish the same term. In one constructed arrangement, a specialist's recommendation is treated as an input to a responsible body's decision. In another, the same recommendation automatically becomes compulsory within an unrelated institution. The scientific content could be identical while the authority question changes, because the second arrangement introduces a new consequence and an additional jurisdictional claim.

The relevant challenge may also target different components. A participant could object that a proposed definition groups cases inconsistently, that an example misleads learners, or that a sound recommendation is being applied beyond the activity it was designed to support. These hypothetical objections need different kinds of assessment. The first might require specialist analysis; the second might require evidence about instruction; the third concerns the implementing institution's decision. Sending each objection to the original scientific author would not, by itself, establish that a responder has the mandate and means to address the particular issue.

A common recommendation can nevertheless make review easier. In a constructed laboratory collaboration, stable terminology could let participants identify the exact definition responsible for a disputed inference. A shared reference would then be a resource for objection rather than evidence of its suppression. An institution could retain the recommendation while changing its local application or clarifying a consequence. The appropriate unit of assessment would include that local operation, not only the published expression.

A defensible evaluation would accordingly trace a concrete concern through the relevant arrangement. The evidence might include the submitted formulation, the version considered, the responsible response and the subsequent implementation. A public comment notice alone would provide an incomplete basis for such an evaluation. The present paper does not possess this episode-level record for a disputed chemical recommendation. It uses the document to clarify the difference between specified procedural stages and their successful execution.

12.2 Zoological Nomenclature Review

The fourth edition of the *International Code of Zoological Nomenclature* is dated 1999; the official online text consulted here incorporates later amendments. Its Preamble distinguishes the regulation of names from freedom of taxonomic thought. Article 78 specifies Commission powers and includes consideration of applications to review its decisions. Article 81 provides a scoped plenary power directed toward stability and universality in particular cases. Article 82 maintains prevailing usage while a case is under consideration until a ruling is published, and connects that status to published notice of receipt [13, Preamble; Arts. 78,81–82]. The rules describe a relationship between operative continuity and review. They do not require Commission approval of every name, make every informal complaint a pending case, or establish that all potential applicants can use the procedures effectively.

The documented combination supplies a useful counterexample to a tempting inference. Continuing to

use the same designation while a challenge is considered need not mean that the challenge has been rejected or made unintelligible. A decision setting can preserve an operative convention and a route to reconsidering it at the same time. The philosophical issue is therefore sensitive to temporal and procedural status. A snapshot of current terminology cannot by itself distinguish settled retention, pending review and an arrangement that offers no consequential route for the concern.

To develop that distinction, consider two explicitly constructed records of a naming practice. Both contain the same current designation and both record that someone objected. In the first, the issue has reached a body with the relevant responsibility, the objector's distinction remains identifiable, and a decision is still possible. In the second, the objection is stored as correspondence but has no route to assessment. Their visible nomenclature can coincide while their future operations differ. The comparison explains what a history-sensitive model should preserve. It supplies no finding that either constructed record describes an actual Commission case.

The countercase also supports a positive reason for authority. Participants may depend on a stable designation while a disputed issue receives careful attention. Treating every unresolved objection as an immediate suspension could create additional confusion and make common records harder to use. Continuing an operative convention can therefore be defensible where its consequences permit delay and a relevant review remains available. The strength of that justification depends on the activity and the costs of continued use. It should not be transferred without examination to a designation whose immediate application imposes an irreversible personal consequence.

The distinction between naming and taxonomic inquiry places a further limit on the analogy. A rule governing the status of a designation need not settle every scientific judgment about the entities being named. In the present paper's constructed institutional setting, a comparable question is whether the body governs a reporting convention, the substantive classification or the consequence attached to the report. Keeping those remits explicit helps identify both proper authority and overextension. The possibility of one bounded distinction in the zoological document does not establish an identical separation for every institutional vocabulary.

An empirical inquiry could then ask which parts of a concern reach the decision record, what assistance an applicant needs, how a ruling is interpreted and which subsequent uses change. These questions require particular histories, not a stronger interpretation of the Code's existence. The current case remains a documented procedural counterexample to identifying continued usage with the absence of review.

12.3 Welsh Place-Name Guidance

The Welsh Language Commissioner's *Guidelines for Standardising Place-names in Wales*, published on 28 February 2025, describe an advisory service supported by an expert panel. The guidance concerns Welsh settlement and topographical names and does not automatically extend to every house or building name. It includes attention to historical and usage evidence, local dialect features and established dual forms alongside orthographic guidance [17, pp. 01/05–05/05]. These details identify the service's stated subject matter and interpretive resources. The document establishes neither a comprehensive appeal procedure nor universal uptake of its recommendations. Its advisory naming role should also be distinguished from other functions of the Commissioner. Describing this service as advisory supplies no general finding about the force of every action taken by that institution.

This case makes the difference between knowledgeable advice and consequential adoption particularly visible. A constructed organization might request a recommended form and voluntarily use it in a publication. Another organization might take the same advice and make that form compulsory on an application portal. The linguistic advice could remain unchanged while the second organization adds a practical requirement. Assessing the requirement would call for examination of the adopting organization's purpose, mandate and treatment of alternatives. Expertise travels into the new arrangement as a reason to consider; its circulation alone does not settle the authority of that added operation.

Local and historical evidence also raises an interpretive question that can be examined without an authenticity ranking. A proposed form may carry a distinction that matters to a particular use, while a standard form may serve broader readability or consistency. The inquiry should specify the selected

task and the evidence supporting each consideration. A universal preference for either standardization or variation would decide the issue before those relations were examined. Equally, preserving two written forms does not by itself ensure that the people using them can make their reasons assessable within an institution.

Consider a further constructed case. A participant supplies an established local form together with an explanation of its use. An institution could record the form as an alias while maintaining a preferred display name. That operation might preserve the relevant retrieval function. If the participant's concern instead concerns the meaning of a public designation, an alias field might leave the requested question unanswered. The same technical accommodation can therefore be adequate to one objection and inadequate to another. The assessment must identify what the contributor is asking the institution to consider.

A standardization service can remain valuable through this differentiation. Expert advice may organize evidence that a small adopting body could not reasonably gather by itself. A clearly stated recommendation may reduce arbitrary spelling choices and make later disagreement easier to locate. These are possible justifications in the constructed comparison, not measured outcomes established by the guidance. Their relevance depends on the implementing operation and its consequences. The document offers a basis for identifying a scoped advisory relationship; the normative assessment concerns how a particular institution uses that relationship.

12.4 Comparative Assessment Records

The three cases motivate an assessment strategy that preserves institutional differences. A researcher can begin with a particular consequential decision and reconstruct its preceding proposal, the relevant expertise, the office responsible for adoption, and the action that implements it. The record should then identify the kind of concern being raised and the role capable of addressing that concern. This is a proposed research procedure for the present inquiry, not a claim that the source institutions currently follow a common method.

The reconstruction should distinguish formal status from practical ability. A named channel may require materials the participant cannot obtain, or it may be effective because an interpreter, teacher or adviser helps formulate the concern. An assessment of access would need to investigate those conditions. It should also distinguish assistance that preserves the concern from a translation that quietly replaces its object. These possibilities specify what additional evidence could matter; their occurrence cannot be inferred from a diagram or a document's silence.

A fair assessment also records reasons for restriction. A body may have good grounds to reject a submission outside its remit, require evidence before reopening a settled issue, combine repetitive comments, or continue an established convention during review. Such actions can conserve the resources needed for serious examination. Their adequacy depends on whether pertinent distinctions remain assessable somewhere appropriate and whether the consequence of delay is defensible. The proposed model supplies neither a universal presumption against filters nor a certificate of legitimacy for formally compliant decisions.

The direction of responsibility is particularly important when one institution adopts another's advice. A challenge to the scientific recommendation may properly return to the originating body. A challenge to a school's use of the recommendation may concern the school's own rule. A challenge to the authority of the school to impose that rule involves a further relation. Collapsing these questions into the quality of the original terminology could leave the relevant implementing decision unexamined. The historical arrangement should therefore retain the added adoption event and its consequence.

This distinction supplies a concrete boundary for the formal investigation. The models can ask whether specified operations preserve a route to a declared kind of assessment and whether two arrangements differ despite identical current usage. They leave open the merits of a particular objection, the justice of a mandate and the credibility of an institution's reasons. To evaluate an actual case, those normative judgments must be connected to episode-level evidence. The documents examined here make that further inquiry more precise while preserving the distinction between a stated procedure, a functioning practice and a justified exercise of authority.

13 Authority Objections

The proposed account assigns importance to executable, semantically adequate challenge while retaining a positive role for authoritative settlement. Its vulnerability lies in the connection between these two commitments. A challenge family might already encode the institution's preferred view; an access requirement might weaken expertise or make decisions impossible; and a mathematical certificate might disguise a normative choice. This section develops those objections and identifies the narrower conclusions that survive them. It also examines an inherited proposal about internal governance whose stronger formulation this paper does not adopt.

13.1 The Relevance Circle

The first objection concerns the selection of relevant challenges. If the institution decides which distinctions matter, then requiring preservation of those distinctions could certify a process that excludes its most serious critics. In the assessment case, the institution could define a pertinent challenge as evidence that no assistance occurred. It would then claim an adequate route while excluding the objection that its broad assistance category is unsuitable for the consequence. The model would succeed because its target had already accepted the contested inference.

The objection is decisive against treating a declared target as self-justifying. The formal analysis can determine whether an arrangement preserves a selected challenge, but it cannot establish the adequacy of the selection merely by restating it. The target needs an independent argument connecting the objection to the institution's purpose, affected consequences or reasons for authority. In the case, the claim that enlarged presentation supplied no part of the required inference bears directly on the stated purpose of assessing that inference. Its initial pertinence can therefore be explained without first accepting the participant's requested remedy.

This reply does not eliminate disagreement over pertinence. An institution may reasonably argue that the task includes a further performance condition for which the difference is immaterial. The participant may contest that condition in turn. The point is to preserve the issue at the level where that disagreement actually lies. If the institution changes its justification, the assessment should identify the change rather than presenting the new reason as though it were simply an application of the original category.

Nor does the reply require anticipating every future conceptual challenge. A bounded analysis can identify a selected family of presently warranted objections and show what happens to them. A later objection may reveal that the family was too narrow, requiring an expanded inquiry. This is an epistemic limit of the certificate, not a reason to abandon all conditional examination. The important discipline is to avoid converting success for a declared family into a claim that all meaningful dissent remains possible.

Historical provenance can help expose the circle. Earlier proposals, rejected examples and source explanations may show that an apparently neutral category was chosen after excluding a distinction. Yet provenance alone does not condemn the choice. The institution may have had good reasons, and those reasons may still apply. The taxonomy's separation of historical criterion formation from epistemic and normative appraisal is essential here [8, Section 13]. History identifies an evaluative burden; it does not settle it by origin.

13.2 Expertise Dilution

A second objection holds that the proposed challenge requirement gives insufficient weight to competence. Technical assessment depends on trained discrimination. Requiring a committee to entertain users' competing descriptions could replace that competence with an unstructured contest of assertions. The resulting delay or confusion may harm those who need a dependable judgment. A stable vocabulary can be part of the knowledge that makes the institution useful.

The account accepts this reason for differentiated authority. It requires assessment of pertinent contributions, not equal authority for all conclusions. A participant can have privileged access to what occurred

during an episode without possessing a complete theory of the assessment. An assessor can correctly reject an inference drawn from that account while retaining the account itself. The interpretive task is to bring relevant evidence and reasons into a competent judgment, including a judgment that explains the participant's error.

There is also a positive reason for preserving the source distinction. Expertise is often exercised by determining which difference matters for which purpose. If an intake procedure removes the difference in advance, the specialist loses the opportunity to make that determination. A route that preserves the participant's contrast can therefore support expert judgment. It need not make the specialist defer to the participant's theory.

The institutional burden remains real. Reviewing repeated or plainly unrelated assertions can consume attention needed for important cases. Triage may use stated relevance criteria, representative examples, consolidation of genuinely equivalent submissions, or an explanation of why a matter falls outside the body's mandate. The difficulty is determining when consolidation is genuine. Two messages using the same official term can concern different reasons; two competing terms can express the same objection. Classification should track the selected issue rather than assume that lexical uniformity settles it.

This response also clarifies the role of a reply. A courteous acknowledgment cannot substitute for competent assessment, but a substantively reasoned rejection need not persuade its recipient in order to count as a response. The proposed account therefore avoids both automatic deference to the dissatisfied user and automatic deference to the office. Each contributes to a judgment whose adequacy remains answerable to the relevant evidence and reasons.

13.3 Closure Costs

The third objection is practical and normative. Maintaining many channels of challenge has costs, and those costs can fall on other participants. A process that postpones every decision until each possible alternative has been considered may protect vocal challengers while withholding an assessment from people who depend on it. A requirement of unlimited revisability would therefore be inconsistent with the bounded coordination rationale offered earlier.

That objection defeats unlimited revisability, which is not the proposed standard. The present claim concerns a practicable route for a selected pertinent issue under the circumstances relevant to the institution's continuing justification. It permits periods of operational settlement, review thresholds justified by the task, and different response times for different consequences. The reasons for these restrictions must be assessed alongside the costs they impose. A route that is available only after the disputed consequence has become irreversible may require a different justification from one that permits timely correction.

The allocation of interpretive work is particularly significant. A requirement that participants provide a technically polished alternative can appear inexpensive because the institution does little work. It may actually transfer the work to people least equipped to perform it. Conversely, an institution that must reconstruct every submission without any contribution from its author can acquire an unreasonable burden. A defensible arrangement can distribute work through accessible explanation, shared examples, bounded assistance or another proportionate method. The paper supplies no universal allocation formula.

An additional issue concerns reliance. Earlier users may have organized their reports and practices around the adopted term. Their interests can support prospective revision, a period of coexistence, or a stable operational meaning during review. Those interests do not make inherited usage conclusive, but they explain why preservation of a challenge does not imply immediate replacement. The normative problem includes the costs of changing a settlement as well as the costs of continuing it.

This treatment follows the prior account's plural evaluation of stabilization, competence, revisability and future formation [5, Sections 13–14]. The current paper does not replace that plurality with an access score. Its formal comparisons can reveal that a proposed restriction destroys a particular route, leaving a further question about whether the loss is justified and what alternative obligations remain.

13.4 External Review

A fourth objection arises from the earlier proposal that governance of generated power must itself be generated by the same relation. On that account, an external restraint yields compliance while only internal restraint can keep authority answerable through continuing renewal [4, Sections 2 and 6]. If accepted without qualification, this would make a separately constituted appeal body an inadequate response in principle, even when it can examine the disputed distinction.

The present analysis supports no such general exclusion. Consider a fictional review office with an independent mandate, access to source reports, relevant expertise and power to require a reasoned reconsideration. The local assessment office may discourage category challenges because it has invested heavily in its terminology. An external reviewer can nevertheless preserve the pertinent distinction and make that challenge consequential. Its organizational separation can be part of what enables answerability.

One might reply that the external office becomes part of the wider relation once it acts. In a sufficiently inclusive historical description, that is true. But it then no longer distinguishes internal restraint from external review in the institutional sense at issue. Defining every effective check as internal to an enlarged relational object cannot establish that only internally originated governance is stable. The relevant inquiry concerns which histories and operational dependencies enable the check.

External review can also fail. Its intake process may inherit the same collapsed categories, its jurisdiction may exclude the disputed consequence, or its timetable may make correction practically unavailable. A new organizational boundary supplies no guarantee of independence or adequacy. The constructive conclusion is therefore comparative: examine how the review obtains evidence, interprets the pertinent issue, allocates burdens and affects the responsible decision. Both internal and external arrangements can perform or fail those tasks.

The earlier manuscript remains useful as a motivation for keeping authority answerable and for distinguishing functional asymmetry from domination. Its stronger universal claims are treated here as proposals requiring additional support. The later accounts of power and normative formation provide more differentiated conditions for relating persistence, efficacy, concentration and contestability. That critical inheritance permits continuity within the programme without turning every earlier formulation into an axiom.

13.5 Formal Explanatory Value

The final objection concerns the role of mathematics. If semantic adequacy, mandate and actual access must be independently warranted, what has the formalism explained? It may appear to redescribe the philosophical problem after placing its important premises outside the equations.

The objection identifies a genuine limit but overlooks the work of comparing compositions. A formal construction can establish that individually available steps fail to form one executable route, that a shared record does not determine which response is appropriate, or that two processing orders preserve different information despite equal observations. Such results identify precise gaps in an inference. They do not need to manufacture a theory of meaning in order to show that one declared representation cannot perform a specified task.

The nonlinear field comparison has a similarly bounded role. Its channels require a declared interpretation, and their signs or amplitudes do not measure legitimacy, reason quality or a person's willingness to hear. Once that interpretation is warranted, the model can examine whether pooling before an operation reproduces pooling after it. A difference can expose a dependence suppressed by an aggregate description. A positive equality result can identify conditions under which aggregation is adequate for the selected response.

The usefulness of these constructions is therefore conditional and diagnostic. They can refute an inference from stable uptake or unchanged formal permission to preserved challenge capacity. They can also support a narrower positive claim when the required domains, distinctions and response operations are retained. Whether the institution should maintain that capacity, change the adoption, or compensate

a burden remains a normative inquiry. The mathematics contributes by clarifying what an authority argument can truthfully claim about its arrangement.

14 Constructed Adoption Assessment

The constructed assessment arrangement can now support a normative comparison rather than only motivate a distinction. The question is whether an institution with a defensible assessment responsibility has adequate reasons to continue making *assisted performance* consequential in its existing form. This section compares several possible arrangements, follows the evidential burden of the selected objection, and identifies what a bounded judgment could establish. The case is fictional throughout. Its purpose is to test the argument's commitments while keeping practical assessment, institutional authority and wider choices about linguistic value distinct.

14.1 The Declared Decision

Retain the task introduced in Section 3: applying a conditional instruction to a new case. The institution records the type of contribution available during the episode because that contribution can affect what the observed performance supports. Its immediate decision is whether the episode supplies the required evidence or requires further examination. The decision does not determine a participant's general competence, worth, or entitlement to speak. Those broader conclusions would require different objects and reasons.

Suppose that the institution's mandate to conduct this assessment is provisionally accepted for the comparison. Also suppose that it has a justified reason to identify content-bearing prompting. These assumptions give the common terminology a substantial positive rationale. A report that hides prompting could misrepresent what happened, and later users need a dependable way to interpret the evidence. The case therefore does not obtain its conclusion by assuming that classification or institutional judgment is itself objectionable.

The difficulty concerns the inference licensed by the adopted label. An enlarged presentation and a content-bearing prompt enter the same broad record category. If a later operation treats every entry as evidence that part of the required inference was supplied, the consequence exceeds what the shared description establishes. This remains a defect even if every assessor applies the label consistently. Consistency in recording a broad category does not supply the missing connection to the narrower evidential conclusion.

The participant's challenge is correspondingly limited. It asks the institution to examine whether the recorded support supplied any part of the inference at issue. It need not demand that the institution abolish its assessment, prohibit the expression, or accept every alternative account. Framing the request this way makes the dispute answerable while leaving the participant free to raise a broader objection through an appropriate route. The model's bounded target should not be mistaken for a compulsory limit on the participant's own understanding of the dispute.

14.2 Three Adoption Arrangements

In the first arrangement, the normalized entry is the only material transmitted to review. A challenge can correct whether assistance was recorded, but cannot introduce its type or challenge the inference drawn from the category. The institution receives uniform reports and can show that an appeal procedure exists. Its procedure nevertheless lacks the resources needed to assess the selected objection. The deficiency is the composition of normalization and review, rather than the isolated presence of a broad term.

In the second arrangement, the term remains a common preliminary label while an associated source account retains the distinction relevant to the assessment. The review body can request clarification, determine whether the contribution supplied content, and explain the resulting evidential judgment. This

alternative retains much of the first arrangement's coordination benefit. It also adds work: source accounts must be retained, interpreters must understand their relation to the task, and someone must have responsibility for the response.

The second arrangement is therefore not superior merely because it keeps more information. Its additional record and interpretive operation are justified, in this comparison, by their bearing on a consequential inference the institution itself makes. If the source account contains unrelated details, its retention may raise costs or privacy concerns without helping the selected review. A scoped account can preserve the pertinent distinction while leaving other information outside the review domain. The rationale concerns useful evidence and proportionate access rather than maximal accumulation.

A third arrangement permits each assessor to use any preferred terminology and requires later reviewers to reconstruct all correspondences. It avoids imposing one expression but can make reports harder to compare and can conceal inconsistent evidential standards. Under the stipulated task, it may place greater burdens on participants who need to understand why apparently similar episodes receive different treatment. Unrestricted lexical diversity is therefore not the benchmark against which every common vocabulary must fail.

These alternatives permit a positive conclusion. A common institutional term can be retained when its role is appropriately bounded and its implementation preserves a practicable way to examine the distinction relevant to its consequences. The second arrangement is a candidate realization of that conclusion, subject to its costs and interpretive adequacy. It does not establish a universal requirement that all institutions retain source accounts in the same form. Other arrangements can meet the same selected responsibility through different operations.

14.3 The Evidential Burden

The source account cannot be assumed correct merely because a participant offers it. Suppose that a presentation change highlighted a feature that helped reveal the conditional relation. The committee would then need to determine whether the change supplied a part of the inference, and the originally proposed classification might remain defensible. The constructive argument therefore relies on the stipulated task-preserving enlargement only within the fictional comparison. An actual application would require independent evidence concerning the episode and the assessment's demands.

There can also be uncertainty about the report itself. The participant and assessor may remember different events. A preserved account can make the conflict visible without resolving it. The review might seek another observation, explain that the evidence is insufficient, or offer a proportionate reassessment. Those responses can be substantively different from either rejecting the participant's claim or affirming that the performance was unprompted. A richer response space is useful because uncertainty about what occurred is not identical to evidence that a particular kind of assistance occurred.

The analysis must also distinguish interpretation from authorization. An intermediary can correctly understand the participant's distinction while lacking authority to reopen the assessment. A decision maker can have that authority while receiving a record too coarse to identify the issue. The second arrangement succeeds only if the pertinent content reaches an operation connected to the requested institutional response. A retained document by itself cannot establish this connection.

Evidence of actual accessibility is another burden. The institution might nominally permit the source account but require a form, fee or deadline that the participant cannot reasonably use. The relevant interpretation depends on the circumstances and on the reasons for the requirement. A costly route is not automatically unjustified; a cheap route is not automatically adequate. The comparison should identify the work required, who can perform it, and whether the arrangement supplies the means on which its claim of answerability relies.

This explains why success in a formal model has to be reported conditionally. A model can hold the relevant distinction, access and response powers fixed to examine the effect of a normalization operation. It then establishes what follows under those premises. An institutional assessment must examine whether those premises hold and whether the selected challenge family is warranted. The two inquiries constrain one another, but neither can replace the other through a change of vocabulary.

14.4 The Authority Judgment

Under the stipulated comparison, the first arrangement has a specific justificatory defect. It attaches a consequence to a category broader than the stated evidential reason and prevents the selected objection from reaching an adequate review. That finding defeats an argument that its uniform reporting and formal appeal alone establish sufficient answerability. It does not establish that the institution lacks every kind of authority or that each assessment it has issued is incorrect.

The institution can respond in several ways. It can retain the term as a preliminary category while differentiating its consequences. It can add a review operation that examines the type of support. It can revise the term itself if the existing expression predictably encourages the disputed inference. Choice among these responses depends on evidence about interpretation, burden and implementation. The paper's result supplies a reason to address the identified defect; it does not select one remedy solely from the failure of the first arrangement.

A revised arrangement could still receive a justified challenge on another ground. Perhaps the task itself imposes an unreasonable demand or the institution lacks responsibility for the affected activity. Those objections address premises provisionally held fixed here. Their possibility does not undermine the local comparison, but it limits what the proposed repair establishes. Improving interpretive access cannot cure an independently defective mandate.

Affected parties can also reasonably disagree about the distribution of review work. Some may prefer a more detailed initial record; others may prefer a brief report with explanation required only when a consequential dispute arises. Assessors may need training, participants may need assistance, and later users may require a stable way to interpret amended reports. A defensible choice must consider these burdens rather than treating a technically executable route as a costless benefit.

The prior normative account describes this wider inquiry through trajectory-sensitive appraisal: a present settlement can alter later competence, dependence, memory and possibilities of revision [5, Sections 13–14]. The present case applies that inherited concern to one adoption. A retained distinction can become easier to assess as examples and competence develop, or harder to assess as exclusive reliance on the normalized category grows. These are possibilities for investigation, not empirical findings about the fictional institution.

14.5 Continued Institutional Use

An appropriate response need not suspend every use of the term while the dispute is examined. The institution may continue to use it for an administrative purpose that does not depend on the contested inference. It may also preserve a provisional operational settlement where delay would impose substantial costs, while ensuring that review can affect the relevant consequence. The permissibility of continued use depends on what it does during the review period, not simply on whether the term remains printed on a form.

Timing matters because a later correction may fail to repair a completed consequence. A review available after an assessment has exhausted its practical purpose can still contribute to future improvement, but it cannot automatically count as adequate recourse for the present participant. Conversely, a prompt response that omits the relevant distinction can leave the substantive problem unresolved. The appropriate route has to connect interpretive adequacy with the time and kind of consequence for which answerability is claimed.

The comparison thus supports a bounded research conclusion. Terminology authority can be justified by a real coordination task and exercised through a selected common expression. Its continuing justification can nevertheless depend on preserving a practicable route through which a pertinent challenge reaches competent response. Whether a given arrangement has that property requires historical, interpretive and operational evidence; whether the property suffices for the authority asserted requires additional normative reasons. The next section compares what the paper's different representations contribute to that inquiry.

Table 2: Representation Warrants. Each row concerns a selected aspect of the same possible institutional history. The last column states an additional question that the construction does not answer by itself.

Representation	Selected Object	Demonstrated Condition	Further Warrant
Historical complex	Retained occurrences and interfaces	Anchor-compatible continuation	Adequacy of the selected history
Finite review	Source query and operation repertoire	Record closure or executable reopening	Relevance of the source query
Regional field	Encoded inputs and response channels	Exact or bounded response compatibility	Meaning of the channel response
Observable algebra	Record-determined functions	Closure under admitted transformations	Practical interpretability
Authority argument	Mandate and consequential decision	Defeasible reasons for answerability	Case-specific justification

15 Cross-Model Interpretation

The paper’s representations answer different parts of an adoption question. This section states how their results may be assembled without converting a formal comparison into a legitimacy judgment. It distinguishes inherited GR commitments from the present constructions, specifies the evidence needed for an institutional application, and explains the role of the computational checks. The objective is an accountable passage among historical description, conditional model and normative assessment.

15.1 Distinct Assessment Targets

The finite review model asks whether a procedure can identify a specified distinction in an original source episode. Its negative result follows from the preservation of indistinguishable records through the entire available repertoire. The nonlinear field instead asks how detailed inputs generate selected response coordinates before or after an averaging operation. Its discrepancy depends on a response law, a regional configuration and the target readout. Neither model is a disguised restatement of the other.

A dossier could recover the source distinction perfectly and then apply an aggregate response procedure that omits its dynamic effects. Conversely, a field response might distinguish two inputs without giving a reviewer any interpretable account of their source meaning. These possibilities explain why information retention, response preservation and competent assessment require separate arguments. Their relationship cannot be secured by calling all three generative.

Table 2 identifies the different objects and warrants. It also marks what each construction leaves open. The table is not a ranking of mathematical sophistication. A simple finite witness may be decisive for a narrow procedural claim, while a more elaborate field remains irrelevant if its encoding cannot be connected to the institutional concern.

15.2 Historical And Interpretive Warrants

An application begins with a history of the proposed adoption, not a choice of equation. That history should identify the institutional activity, the expressions in dispute, the role assigned to a shared term and the consequences attached to its use. It should retain the source of the disputed distinction and the grounds for treating it as relevant. It should also distinguish a participant’s interpretation from the institution’s rendering and the analyst’s reconstruction.

The source question may itself be disputed. A committee might say that its task concerns assistance generally, while a participant argues that a particular consequential judgment depends on whether assistance supplied an inference. This disagreement cannot be settled by selecting the more detailed q in advance and then proving that the coarse record fails to recover it. The finite proof is conditional on

a target. The philosophical argument must defend why that target bears on the undertaking or why the institution's narrower account of its purpose is inadequate.

The appropriate historical object may include several interacting regions: the original practice, a specialist review setting, the administrative decision and the setting where the decision takes effect. Their relations are not exhausted by a chronological list. A submission can be temporally available but practically inaccessible to a later reviewer. A later objection can concern an earlier application whose consequences persist. A labelled two-complex can help retain selected occurrence relations and comparisons, provided its faces do not silently certify translations that remain contested.

This is the value of the GR spacetime orientation in the present study. It keeps the adoption decision inside an extended configuration of prior formation, current manifestation and possible continuation. It does not require a physical spacetime metric, a quantum amplitude or a complete representation of an institution. The formal realization should retain what the argument needs and state the historical features it omits.

15.3 Operational And Consequential Warrants

A record of available procedures must distinguish named operations from executable ones. For an actual challenge, the relevant domain can depend on who may submit it, what material can be disclosed, who can interpret it, how much time remains and which body can respond. If these conditions differ across participants, a single undifferentiated availability relation can conceal the very inequality under examination.

The finite closure premise is correspondingly demanding. It claims that every operation in the modeled repertoire preserves the selected record equivalence and its availability. Finding one inaccessible source document does not establish that premise for a real institution. Another operation could introduce the relevant distinction. A responsible negative application must either examine the complete bounded repertoire or state clearly which routes have not been evaluated.

A positive reopening witness requires similar care. The source material must support the interpretation ascribed to it; recovering a string from an archive does not establish its pertinent meaning. A reviewer must have a usable route for communicating the assessment. The recipient must possess the relevant mandate if the claim concerns a consequential institutional response. Otherwise the witness proves only a narrower informational capability.

This separation allows concrete repairs. If the source distinction is lost at rendering, retain or reconstruct an appropriate contextual record. If the distinction is understood but cannot reach a responsible body, examine the referral route. If the body can act but declines after a reasoned assessment, assess that reason rather than relabeling the outcome as informational closure. Different defects require different changes to the arrangement.

The repair also has costs. More contextual material may impose disclosure risks or interpretive work. An external assessment can provide competence or independence while adding delay. A shared term can make a service possible even when its categories are selective. The philosophical claim concerns a proportionate response to a pertinent challenge within a defensible mandate; it does not make maximal retention the governing principle of every institution.

15.4 Dynamical Warrants

The field model requires more than a visual resemblance between a committee network and a graph. An application would need to explain the operational coordinates, the signed inputs, the interaction channels and the response law. It would need to show why averaging represents the normalization at issue. It would also need to identify a task for which the resulting response discrepancy matters.

The cubic law has a limited analytical purpose: it exposes how unresolved within-block moments enter subsequent aggregate response. The broader restoring-law comparison shows that the sign effect is not an accident of one polynomial, while the affine countercase identifies a setting where the effect

disappears. These comparisons justify taking nonlinear processing seriously. They do not establish that any particular institution follows the proposed law.

Likewise, an error bound becomes practically useful only after its tolerance receives an interpretation. A numerically small difference might matter greatly near a consequential categorical decision. A larger difference could be immaterial to a task that depends only on another property. The present study does not introduce an arbitrary numerical threshold for legitimate authority or effective contestation.

The same restraint applies to time. The finite-readout result establishes a sufficient observation time under the model's contraction and error assumptions. It leaves open whether the institutional review window is that long. If a pertinent distinction becomes available only after an irreversible consequence, the temporal mismatch is a further historical problem. It should be described directly, rather than concealed by an eventual convergence result.

15.5 Computational Support

The accompanying source packet retains two kinds of reproducible check. The finite checker enumerates small partial transitions, tests record saturation and successor compatibility, and compares these conditions with invariance of the record-indicator basis. It also constructs the source-episode review tree and its reopening witness. These checks exercise domain boundaries and composition, where an apparently simple formalization can otherwise omit a case.

The field script checks the analytic moment identity, actual and nested regional restriction, equitable-block response, contraction, equilibrium residuals and the stated discrepancy bounds. It includes an affine comparison and a further nonlinear restoring law, and compares numerical time steps. The vector figures are generated from that same declared model.

The proofs establish the conditional general claims; finite enumeration and numerical trajectories do not replace them. Conversely, a formal proof does not validate a numerical implementation automatically. Agreement between independent identities, residuals and a refined integration is a useful implementation check. None of this computational evidence establishes an empirical finding about a terminology institution.

15.6 Inherited And Proposed Contributions

The prior preservation taxonomy supplies distinctions among retaining manifestations, capacities and the conditions of continuation [8]. Prior normative formation and linguistic convention work already locate answerability within formative relations and recognize that adopted vocabularies can shape later challenge [5, 11]. The power studies supply the history-bearing, judgment-conditioned and regional formal orientation [7, 6]. These are resources for the present inquiry, rather than claims of new discovery.

The current proposal concerns a narrower institutional object: authority to make a terminology decision consequential for competing formulations. It connects a defeasible obligation of pertinent assessment to a specified record and operation comparison. Its nonlinear construction adds an explicit response-order calculation, positive compatibility conditions and bounded approximations. Its algebraic account makes the relevant closure and enlargement claims inspectable.

The connection remains a proposed analysis. Its value depends on whether these distinctions help explain a real adoption difficulty more clearly than an undifferentiated appeal to participation, expertise or flexibility. That standard leaves room for cases in which existing institutional concepts are already sufficient and for cases requiring a substantially different model.

16 Research Boundaries

This study has examined a bounded form of institutional authority: the authority to adopt a terminology that changes how participants' formulations are received, assessed or acted upon. This final section states the resulting position, its limitations and the further inquiry needed to evaluate it. The conclusions

concern an adoption arrangement, not a general settlement of language ownership, political legitimacy or the preservation programme.

16.1 Bounded Adoption Authority

Shared terminology can have a defensible institutional role. It can make comparison, coordination and the exercise of a limited mandate possible. Expertise can supply reasons for preferring one rendering, and the costs of repeated reconsideration can justify a period of settled use. These considerations explain why the ability to impose a common record need not itself be a defect.

They also identify the relevant limits. An institution's reason for adopting a term can depend on distinctions that its own review procedure later prevents participants from making assessable. Where those distinctions are pertinent to the undertaking and its consequences, a formal opportunity to submit comments can be insufficient. The proposed obligation is to support an appropriate route to substantive assessment within the scope and proportionality conditions defended in the paper.

That obligation permits disagreement and justified refusal. A challenge may reach competent assessment and still fail. An institution may retain a preferred term while changing its application, explanation or supporting record. It may also defend the original arrangement without revision. The analysis distinguishes these outcomes from a procedure that cannot encounter the pertinent issue at all.

16.2 Formal Conclusions

The finite model establishes a conditional obstruction. When the available partial operations preserve the same record equivalence, a record-based review cannot guarantee correct identification of a source issue that differs within one record fibre. More iterations of that repertoire do not supply the omitted distinction. A source-sensitive operation and an interpretable richer readout can provide a positive reopening witness on a specified starting domain.

The field model establishes a different conditional result. Nonlinear local processing can depend on contrasts erased by prior pooling, even when the pooled input is unchanged. The three-site example supplies an exact sign calculation, and the regional moment identity identifies the unresolved terms. Equitable block structure together with block-constant inputs and initial states gives an exact positive case; controlled residuals give a bounded approximation.

The operator account relates these results to record-algebra closure. It retains partial execution domains and distinguishes a linear pullback on observables from a nonlinear state flow. It does not supply a scalar measure of authority, a quantum account of institutions or an inference from algebraic inclusion to normative superiority.

16.3 Institutional Evidence

The literature comparison supports the reality of several analytical problems: terminology choices can concern standards of use, expertise requires a further account of consequential authority, and institutional naming procedures have specified decision roles and routes for reconsideration. The documents discussed in Section 12 establish their stated procedures. They do not establish how every participant experiences those procedures.

A substantive case study would therefore need more than a rules document. It would need source submissions, their successive renderings, the reasons offered for adoption, records of challenge and evidence about access, interpretation and institutional response. Different participants' accounts could conflict. Such conflict is part of the research material, not a reason to impose one unexamined description of the source issue.

The model's negative premise would require particular care. Showing that one channel omits a distinction does not prove that all meaningful routes are closed. The positive premise also needs evidence: the existence of an archive or an appeal body does not establish a usable connection between them. The proposed distinctions guide those investigations without predetermining their findings.

16.4 Programme Scope

The study treats GR as an open framework for relating philosophical questions to historical and formal representations. Its spacetime orientation retains the formation and continuation of an institutional object. The two-complex representation, nonlinear response field and observable algebra are selected tools within that orientation. Alternative representations may be preferable for other questions.

The argument also remains open to revision within the programme. Earlier proposals about internal restraint and the formation of epistemic power require scrutiny alongside external review, differentiated mandates and actual access conditions. Their status as prior GR formulations gives them a place in the inquiry, not immunity from it.

Several adjacent questions remain separate. Deciding which teaching capacities deserve support requires substantive priority arguments beyond adoption authority [10]. Designing a terminology registry requires further technical and governance choices. The justice of preservation burdens extends beyond the selected review episode. Keeping those questions distinct permits the present claim to remain specific: the authority to settle a term should be assessed together with the actual route by which pertinent reasons can reach an appropriate consequential assessment.

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