Hierarchy of Relational Claims

A Five-Tier Model for Evaluating the Strength of Claimed Relationships

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2026

Preface: On Authorship and Method

The model presented in this paper — its structure, its five tiers, the criteria distinguishing them, and the philosophical commitments underlying them — was conceived and developed by the author. The identity tiers as necessary completions of relational analysis, the distinction between constraint-governed convergence and accidental structural correspondence, the epistemic rather than ontological scope of the framework, and the recursive applicability of the hierarchy to its own definitional choices are all products of the author's independent reasoning. The framework was not derived from the existing literature on analogy, correspondence, or identity theory, though a subsequent comparative review established that it independently converges on several recognized moves in that literature while introducing distinctions not found there.

The prose of this paper, and of the accompanying plain-language explanation, was produced with the assistance of large language models — specifically Claude (Anthropic) and ChatGPT (OpenAI) — acting as reasoning partners and drafting tools throughout the development process. The author directed all substantive content, corrected and refined the AI-generated drafts at each stage, and endorses the final text as accurately capturing the intended framework. The AI systems contributed to the articulation and organization of ideas; they did not originate them. This relationship is analogous to that between an author and a skilled editor or amanuensis, with the distinction that the volume and pace of iterative refinement made possible by AI assistance compressed what might otherwise have been a process of many months.

The literature review situating this framework in the relevant scholarly fields was produced collaboratively by Claude (Anthropic) and ChatGPT (OpenAI) and is attributed accordingly in that document. The author did not consult the literature prior to developing the model; the review was conducted afterward, and its finding that the framework independently converges on recognized positions while introducing novel distinctions is offered as evidence of robustness rather than as a claim of priority.

One further note on the framework's status: the model has been tested not only against external cases but against the author's own preferred analogies. In several instances, the constraint evidence available did not support advancement beyond Tier 2, despite the analogies' apparent density and coherence. The framework's willingness to return this verdict — to limit rather than confirm — is among the stronger grounds for treating it as a genuine epistemic instrument rather than a retrospective rationalization of preferred conclusions.

Abstract

Claims of relationship between two things — that one resembles, parallels, mirrors, or instantiates another — vary enormously in their epistemic force. This paper presents the Hierarchy of Relational Claims, a five-tier taxonomy for evaluating the strength and kind of relationship asserted between two perceived entities. The model distinguishes three correspondence tiers, in

which two things remain genuinely distinct while their relationship is progressively constrained, from two identity tiers, in which the apparent duality between them is found to be illusory at the level of type or of individual reference. The correspondence tiers are distinguished by what is preserved under mapping: subjective impression, specified structure, and governing constraint respectively. The identity tiers mark the discovery that the perceived multiplicity was a misclassification: The two things share a defining specification (Identity of Definition) or are in fact the same individual object (Identity of Referent). A critical feature of the model is that the identity tiers are not anticipated outcomes of analysis but necessary completions of it: If identity obtains and the analysis terminates before reaching that determination, understanding is incomplete. The model provides both a descriptive taxonomy and a diagnostic instrument for evaluating the legitimacy of relational inference.

1. Introduction

Relational claims — assertions that one thing resembles, parallels, or corresponds to another — are among the most pervasive and consequential moves in reasoning. They are the basis of analogical argument, theoretical unification, cross-domain inference, and everyday pattern recognition. They are also among the most frequently abused: The history of fallacious reasoning is largely a history of relational claims asked to carry more evidential weight than their depth supports.

The inadequacy of existing vocabulary for distinguishing levels of relational claim is itself a source of this problem. The word *analogy* covers everything from loose poetic resonance to constrained structural mapping. *Similarity* is metrically vague and implies no particular dimension of comparison. *Homology*, in its biological usage, presupposes shared ancestry — a condition too narrow for most philosophical and scientific applications. *Isomorphism*, in its strict mathematical sense, requires a bijective structure-preserving map — a standard too demanding for most practical comparisons. None of these terms, singly or in combination, provides a principled taxonomy of relational strength.

This paper proposes such a taxonomy: the Hierarchy of Relational Claims, a five-tier model that classifies relational claims by what is conserved or collapsed under the claimed mapping. The first three tiers are correspondence tiers, evaluating the strength of a relationship between two things that remain genuinely distinct. The final two are identity tiers, marking the discovery that the apparent duality between two perceived things is at least partly illusory.

The model was developed independently, by reasoning from first principles about the structure of relational claims rather than by extension of existing frameworks. Where it converges with prior work in philosophy and cognitive science, that convergence is incidental rather than constitutive. A central claim of this paper is that the identity tiers are not optional extensions of the model but necessary components of any complete relational analysis. We do not typically begin the evaluation of a relational claim expecting to discover identity. The usual purpose is to assess correspondence strength — to determine whether an analogy holds, and how deeply. But if identity in fact obtains at the level of type or of individual reference, and the analysis terminates before reaching that determination, the understanding of the relationship is incomplete. The identity tiers represent the point at which the question changes from *how strong is this correspondence?* to *were these ever truly distinct?* That question must remain open until evidence closes it, in either direction.

2. Conceptual Background

2.1 The Problem of Relational Depth

The baseline problem for any account of relational claims is that unqualified assertions of similarity carry no epistemic content. Any two things are similar in infinitely many respects and dissimilar in infinitely many others; the bare claim that two things are alike specifies nothing and licenses nothing. What does epistemic work is never similarity *simpliciter* but similarity in some specified respect, under some chosen description, relative to some purpose. The present model makes this constraint structurally explicit by specifying what dimension of correspondence is claimed at each tier, and by extending the analysis beyond correspondence into identity.

A further structural problem concerns the relationship between correspondence and constraint. Positive structural correspondence — features shared by both domains — provides genuine inductive support for theoretical claims. But structural correspondence alone does not establish that the shared features are there for any particular reason. The critical distinction is between correspondence that happens to hold and convergence that is necessitated by shared governing constraints. This distinction, which separates Tier 2 from Tier 3, carries the most important epistemological consequences for cross-domain inference: Only constraint-governed convergence licenses the inference that any system of the relevant type must share this structure.

2.2 Type and Token Identity

The identity tiers rest on a fundamental distinction between two kinds of identity. A *type* is a kind or category, defined by a set of properties; a *token* is an individual instance of a type. Two objects may share type identity — instantiate the same defining specification — while remaining numerically distinct tokens. These are not points on the same scale of identity but structurally different findings: Discovering that two things are the same kind is not a weaker version of discovering that they are the same thing. The present model incorporates this distinction as the boundary between Tier 4 and Tier 5: The former concerns the discovery of shared type, the latter the discovery of numerical identity.

An important qualification is that type identity is always indexed to a definitional framework. The same two objects may share type identity under one framework (both are the same model of automobile) but not under a more granular one (one has automatic transmission, the other manual). This is not a deficiency in the tier but a structural feature: Identity claims at Tier 4 are always relative to a specified defining schema, and variation in definitional granularity may alter the identity relation without introducing a new relational category.

2.3 The Epistemic Status of Correspondence

The correspondence tiers are distinguished not only by how strong a mapping they describe but by what accounts for the mapping. A structural correspondence between two domains may be accidental, deliberately imposed, or externally derived from a common source without carrying any implication about why the correspondence holds. What licenses strong cross-domain inference is not structural correspondence as such but constraint-governed convergence: the discovery that any system of the relevant type, subject to the relevant constraints, must instantiate this structure. The distinction between Tier 2 and Tier 3 is precisely this — between a correspondence that happens to hold and one that must hold — and it carries the most consequential epistemological difference in the model.

A final clarification governs the model as a whole. The Hierarchy of Relational Claims is an epistemic framework: It evaluates the strength of relational claims between two perceived things under stated constraints. It does not assert ontological conclusions beyond what those constraints warrant. This distinction is not cosmetic. Each tier classifies the justification available for a relational claim — not the ultimate furniture of reality. When identity is established at Tier 4 or Tier 5, the model recognizes it because the evidence warrants the claim, not because identity was the anticipated destination. When identity is not established, the model does not speculate about deeper unity that might exist beyond the available constraints. The correct response to the suggestion that two things might be identical at some level inaccessible to the analysis is that such a possibility falls outside the model's scope. Under the operative constraints, identity either holds or it does not. A relational claim holds at the highest tier the available evidence justifies — and no higher.

3. The Five-Tier Model

The Hierarchy of Relational Claims comprises five tiers, divided into two groups: three correspondence tiers, in which the two things under analysis remain genuinely distinct, and two identity tiers, in which the apparent duality is found to be illusory at some level. The tiers are hierarchically nested: Each higher tier entails all lower ones, but the entailment does not run upward.

Correspondence Tiers

Tier 1: Correspondence of Impression

Subjective pattern convergence | Undifferentiated alignment

The weakest relational claim is that two things feel related — that a pattern in one domain registers as echoing a pattern in another. No mapping is specified. No dimension of comparison is named. No explanatory account is offered. The claim is exhausted by the assertion of felt alignment.

Precision here is essential. A claim at Tier 1 names no dimension of comparison — not visual, not structural, not functional, not any other. The boundary between Tier 1 and Tier 2 is not a matter of degree but of kind: The moment any dimension is invoked, even a perceptual one, the claim has moved to Tier 2. Even *looks like* already names visual appearance as the dimension of correspondence — that is a Tier 2 move. A genuine Tier 1 claim is limited to *is like,* without answering the question *in what way?* The instant that question is answered, in any form, Tier 1 has been left behind.

This thinness is not a defect. Tier 1 claims serve genuine epistemic functions: They initiate inquiry, generate hypotheses, and direct attention toward possible correspondences. The danger lies not in making Tier 1 claims but in treating them as though they carry the evidential force of higher-tier ones. A substantial portion of fallacious analogical argument consists precisely of this conflation: A felt resemblance is treated as evidence of structural correspondence or shared governing principle.

Tier 2: Correspondence of Structure

Structural convergence | Specified correspondence

At Tier 2, the relational claim becomes explicit and articulable. A specified mapping is proposed: *These* elements correspond to *those* elements, and the relations among the former mirror the

relations among the latter. The relational topology of one domain is preserved under mapping to the other. This is isomorphism in a broad sense — not necessarily a strict bijection, but a specifiable structural correspondence whose elements can be identified and whose relations can be compared.

The epistemic gain over Tier 1 is substantial. A specified structural correspondence licenses genuine cross-domain inference: If domain *A* has property *P* by virtue of its relational structure, and domain *B* has been shown to be isomorphic to *A* in the relevant structural respects, then *B* may also have property *P*. This is the basis of model-theoretic reasoning, analogical problem-solving, and a significant portion of scientific theorizing. The leverage is real, but it is conditional on the specification being genuine — on the correspondence being shown rather than assumed.

Tier 2 correspondence may be accidental, deliberately designed, or externally imposed. Two systems may be structurally isomorphic for no deeper reason than that one was built to mirror the other, or that both happened to instantiate a common template. The correspondence at this tier carries no implication that there is any underlying reason for the structural similarity. That question is what Tier 3 addresses.

Tier 3: Correspondence of Constraint

Principle convergence | Shared governing constraints

At Tier 3, the relational claim becomes explanatory rather than merely descriptive. The structural correspondence is not accidental or imposed: It arises because both systems are governed by the same underlying constraints, solving the same class of problems under the same fundamental limitations. The convergence is necessary: Any system of the relevant type, developed under the relevant conditions, must instantiate this structure.

This is the critical distinction from Tier 2. Two systems can share structural correspondence by design, coincidence, or analogy without sharing any governing principles. But when two systems that developed independently — from different materials, in different contexts, without mutual influence — share an architectural element because both are governed by the same constraints, that convergence is diagnostic. It reveals something true about the problem space, independent of either implementation. Two qualifications sharpen this claim. First, Tier 3 requires that at least one element of the Tier 2 mapping be constraint-derived; other elements of the structural correspondence may be coincidental or designed without weakening the Tier 3 claim. This is a threshold condition, not a description of the typical case. In practice, multiple constraint-derived correspondences are both common and evidentially significant: Each additional element that must take the form it does, given the governing constraints, narrows the space of possible explanations for the convergence and strengthens the case that the constraint space itself is being correctly characterized. A single constraint-derived element establishes the tier; a mapping in which many elements are constraint-derived deepens confidence in the analysis. A Tier 2 analysis functions as a discovery process for Tier 3 candidates, not as a precondition whose totality must be validated. Second, the constraints need not force a unique solution: The constraint space may permit a class of architectures, of which the observed convergence is one consistent outcome. The presence of multiple convergent solutions satisfying the same constraints is in fact stronger evidence of Tier 3 than a single instance, since it demonstrates the constraint space rather than merely a coincidence of form.

A further clarification concerns the relationship between constraint-derived correspondences and those that merely accompany them. When a Tier 3 claim is established, the elements of the mapping that genuinely flow from the shared governing constraints must hold exhaustively within their domain of relevance — their absence would defeat the Tier 3 claim at that element. But not

every proposed parallel in a mapping need be constraint-derived. Many structural correspondences in a rich Tier 2 mapping will be incidental: the result of shared ancestry, parallel design choices, common materials, or coincidence. These are not liabilities — they can be set aside without affecting the Tier 3 finding — but they should be distinguished from the constraint-entailed elements. The discipline required is to identify which parallels are genuinely forced by the shared constraint space and which are narrative overlays: true in both domains, coherent within the mapping, but not derivable from the governing constraints. Conflating the two categories produces Tier 3 claims that appear more robust than they are. The test is the same as for the at-least-one criterion: *Can this element of the correspondence be shown to follow from the constraints, or does it merely fit within them?*

The biological concept of convergent evolution provides a paradigm case. The camera eye evolved independently in vertebrates, cephalopods, and several annelid lineages; compound eyes and pinhole arrangements represent other solutions in the same constraint class. The convergence is not homology (which would require shared ancestry — a Tier 5 relation) but constraint-driven architectural necessity: Any system that must focus variable-distance objects onto a light-sensitive surface in a wide dynamic range environment is constrained to implement lens-and-aperture architecture as one permissible solution. Whether this characterization of the constraint space is correct requires empirical investigation. By contrast, some Tier 3 claims can be established by logical or formal derivation: Any system that must represent abstract entities, maintain identity across contexts, and support property-based retrieval is derivably constrained to implement something like indexing and schema-based architecture — a conclusion that follows from the problem specification without requiring empirical confirmation of the biological or computational cases. The degree of confidence a Tier 3 claim warrants thus depends on the nature of the constraints: Logical or mathematical constraints may yield certainty; physical, biological, or cognitive constraints typically require empirical support.

Tier 3 is what justifies the strongest form of cross-domain inference: not merely *these systems behave similarly* but *at least one structural feature of this system must take this form, given these constraints*. It is the basis of the deepest theoretical unifications in science and the ground of the most defensible analogical arguments. An analogy that rests on Tier 3 correspondence is not an analogy in the pejorative sense — it is a recognized instance of a necessary structural feature of a class of systems. Establishing Tier 3 does not foreclose advancement to the identity tiers; a constraint-derived correspondence is fully compatible with the subsequent discovery that the two systems instantiate the same defining specification or are the same individual object. The Tier 3 finding then contributes to the explanation of why the identity, once discovered, has the character it does.

Identity Tiers

The identity tiers mark a phase transition in the analysis. Up through Tier 3, the model evaluates the strength of a relationship between two things that remain irreducibly distinct — however deep the correspondence, there are two things being compared. At the identity tiers, the question changes: not *how strong is this correspondence?* but *were these ever truly separate?* The two perceived things are found to instantiate the same definition, or to be the same individual object perceived from different vantage points.

The terminology enacts this shift. *Correspondence* implies two terms in a relation. *Identity* implies one. This linguistic pivot is structural, not cosmetic.

It is essential to understand that the identity tiers are not anticipated outcomes of relational analysis. Analysis typically begins with the assumption of distinct terms and asks how they relate.

The discovery of identity — at either level — is generally unexpected, often delayed, and sometimes arrived at by routes other than direct inquiry. But it is a necessary completion of the analysis: If identity obtains and the investigation stops short of establishing it, the relationship has been misread. The correspondence, however accurately characterized, will have been attributed to two things that are in some relevant sense one.

Tier 4: Identity of Definition

Type identity | Shared specification across tokens

At Tier 4, the two perceived things are found to instantiate the same defining specification. They are the same type. They differ only in features that are external to their definition: location, individual history, ownership, numerical identity as particular objects. In the philosophical vocabulary, they share type identity while remaining distinct tokens.

Because type identity is indexed to a defining framework, the operative schema is not arbitrary: It is the one the analogy itself requires. The relevant definition is the one that captures what the correspondence was actually claiming to share — no finer, no coarser. Appealing to a more granular definition under which the two things differ is not a refutation of Tier 4; it is a change of subject, unless that finer distinction bears on what the analogy was originally claiming. If it does, the analogy was implicitly operating at that resolution all along and should be examined there. If it does not, the objection deflects rather than engages. A common response to a Tier 4 finding is the partial recant: conceding type identity under some definition while insisting on a finer distinction that reintroduces separateness. The diagnostic question is whether that finer distinction is relevant to the analogy's original claim. If not, the recant does not land.

The question of whether a given definition is the right one for the analogy is itself a correspondence claim, and the Hierarchy applies to it recursively. A definition that merely feels appropriate constitutes a Tier 1 match to the analogy; one that can be shown to structurally capture the analogy's operative dimensions is Tier 2; one the analogy's own constraint space forces — where any coarser definition loses a relevant distinction and any finer one introduces distinctions the analogy does not depend on — is Tier 3. This recursion is in principle unbounded: The claim about the definition can itself be evaluated, and so on. The regress is not vicious — it terminates in practice when the match between definition and analogy is established to the degree the argument requires — but it is real. The recursive structure may have the incidental rhetorical effect of discouraging Tier 4 claims or of being deployed to stall an argument; this is a consequence of the model's rigor rather than its purpose, and falls outside its scope.

The transition from Tier 3 to Tier 4 is not a strengthening of correspondence but a change of relational category. At Tier 3, two things converge because of shared constraints while remaining genuinely distinct kinds of entity. At Tier 4, the distinction of kind collapses: They are not merely governed by the same principles but defined by the same specification. This is the point at which the question *how do these relate?* gives way to *are these the same?*

Tier 5: Identity of Referent

Numerical identity | Apparent duality resolved to one object

At Tier 5, the duality collapses entirely. The two perceived things are not merely the same type — they are the same individual object, encountered twice: at different times, from different vantage points, under different descriptions, or within different theoretical frameworks. There is one thing, not two.

Tier 5 is binary in a way that the preceding tiers are not. Tiers 1 through 3 admit of degree: Correspondences can be more or less strong, more or less complete. Tier 4 admits of gradation in definitional resolution. But numerical identity does not admit of degree. Either two perceptions refer to the same individual object or they do not.

The history of science provides the clearest examples of Tier 5 resolution. The *morning star* (Phosphorus) and the *evening star* (Hesperus) were recognized as the same individual object, Venus, observed at different times. Electricity and magnetism, treated as separate forces for centuries, were unified by Maxwell as aspects of a single electromagnetic field, the apparent distinction between them being a function of reference frame rather than physical reality. In each case, what appeared to be a Tier 3 or Tier 4 correspondence — two things sharing deep structural and definitional properties — was revealed to be a Tier 5 identity: one thing, twice described.

The epistemology of Tier 5 discovery is distinctive. Because it requires the dissolution of a category boundary that has been treated as natural and stable — embedded in experimental traditions, theoretical frameworks, and institutional structures — it typically arrives late, often by accident, and characteristically takes the form of a conceptual rupture rather than a gradual accumulation of evidence. A researcher deepening their understanding of one domain may suddenly find that a puzzle in a different domain resolves — because both domains were always perspectives on the same underlying reality. The unity was always there; what changed was the vantage point.

4. The Hierarchical Structure and Its Entailments

The five tiers are nested in a strict partial order. The entailment relation runs downward only: Tier *N* entails all tiers below *N*, but the converse does not hold at any level.

The downward entailments hold for the following reasons. Tier 5 (numerical identity) entails Tier 4, because the same individual object necessarily instantiates the same defining specification. Tier 5 entails Tier 3, because a single object will exhibit constraint-governed behavior; any structural convergence observed between two descriptions of it is not merely structural but grounded in the nature of the single underlying entity. Tier 5 entails Tiers 2 and 1 for similar reasons. Tier 4 (type identity) entails Tier 3, because objects that instantiate the same defining specification are governed by the same operational constraints. Tier 4 entails Tiers 2 and 1. Tier 3 (shared governing constraints) entails Tier 2, because constraint-governed convergence necessarily produces specifiable structural correspondence — you cannot share governing principles without sharing the structural architecture those principles necessitate. Tier 3 entails Tier 1. Tier 2 (structural correspondence) entails Tier 1, because a specifiable structural mapping presupposes that some pattern alignment was detectable.

The upward entailments do not hold. Tier 1 does not imply Tier 2: Felt alignment is compatible with zero structural correspondence. Tier 2 does not imply Tier 3: Structural correspondence may be accidental, designed, or externally imposed without reflecting shared governing constraints. Tier 3 does not imply Tier 4: Two genuinely distinct kinds of entity may share governing constraints while remaining definitionally different. Tier 4 does not imply Tier 5: Two objects may share type identity while remaining numerically distinct individuals.

This asymmetric entailment structure is the model's principal diagnostic utility. When a relational claim is made — whether in formal argument, scientific theorizing, or everyday reasoning — the appropriate question is: *At which tier does this claimed relationship actually operate?* The answer determines what the claim legitimately licenses by way of inference, and what it does not.

Arguments that implicitly assume Tier 3 or identity-level depth when the evidence supports only Tier 1 are committing a structural error — not merely a rhetorical one.

5. The Identity Threshold: Necessity and Surprise

The transition from correspondence to identity tiers is not merely a strengthening of the same kind of claim. It is a change in the nature of the inquiry. The correspondence tiers ask how strong the relationship is between two distinct things. The identity tiers ask whether the apparent distinction survives analysis at all. This is a different question, and it requires a different epistemic posture.

The identity threshold — the boundary between Tier 3 and Tier 4 — is marked in the model's terminology itself. *Correspondence* names a relation between two terms. *Identity* names the collapse of two terms into one. A model in which both groups used the same vocabulary would obscure this structural break; the terminological shift makes it explicit.

What makes the identity tiers epistemologically unusual is that they are not the expected outcome of relational analysis. Typically, an evaluator begins by assuming two distinct things and asks how they are related. The identity tiers represent the discovery that this assumption was wrong — that the two perceived things are, at the relevant level, one. This discovery is generally unexpected. It is often delayed. It tends to arrive not through the accumulation of correspondence evidence but through a reframing that makes the apparent duality visible as an artifact of limited perspective.

Despite being unexpected, the identity tiers are not optional. If identity obtains at the level of definition or of individual reference, and the analysis terminates before reaching that determination, the analyst has not merely left work undone — they have mischaracterized the relationship. Correspondence language implies two terms in a relation. Once identity is established, that framing is wrong: The questions it makes intelligible — *what licenses inference from one to the other? how far does the mapping extend?* — are the wrong questions. To characterize as correspondence what is in fact identity is a category error about the fundamental structure of the relationship under investigation, not a matter of degree or of incomplete coverage.

The practical implication is that relational analysis should not terminate at Tier 3 by default. The correspondence tiers may be the most common destination, but the analysis is complete only when evidence has been assessed for the identity tiers as well — and has either established or ruled out identity at each level. The absence of identity is itself a substantive finding, not a mere null result.

A related but distinct use of the correspondence tiers deserves explicit recognition. A Tier 2 mapping can serve a legitimate epistemic function short of asserting necessity: it can demonstrate that a proposed relationship is structurally coherent, and thereby block premature negation. If a skeptic claims that two things are incompatible — that no coherent relationship between them can be constructed — a well-formed Tier 2 mapping refutes that claim directly. It does not establish that the relationship is necessary or that the mapping corresponds to the actual structure of reality. It establishes that a coherent mapping exists, and therefore that incompatibility has not been demonstrated. This is a meaningful result: it preserves the possibility of a Tier 3 or Tier 4 finding pending further investigation, without asserting that such a finding is forthcoming. The claim supported by a Tier 2 mapping used in this way is not *this is how things are* but *a solution exists within the constraint space* — which is sufficient to defeat a claim of impossibility. This use of Tier 2 is defensively sound and epistemically patient; what it cannot do is substitute for the constraint evidence that a Tier 3 claim requires.

6. Applications and Diagnostic Use

6.1 Auditing Analogical Arguments

The model's most direct practical application is as a diagnostic instrument for analogical arguments. A large and consequential class of inferential errors shares the structure of treating a lower-tier correspondence claim as though it carries the force of a higher-tier one. The model makes this error structurally visible.

When an argument of the form *X is like Y, therefore X shares property Z with Y* is encountered, the model supplies a precise diagnostic question: *At which tier does the claimed correspondence between X and Y actually operate?* A Tier 1 correspondence — felt alignment without specified mapping — licenses almost no inference. A Tier 2 correspondence licenses inference only within the scope of the structural elements that have been mapped. A Tier 3 correspondence, grounded in shared governing constraints, licenses the strongest form of cross-domain inference. The model makes explicit how much evidential work the claimed correspondence is capable of doing, and how much the argument is asking it to do.

6.2 Theoretical Unification

The identity tiers of the model illuminate the epistemological structure of theoretical unifications — cases where two apparently separate domains, phenomena, or entities are shown to be aspects of a single underlying reality. Such unifications are among the most significant events in intellectual history, and the model clarifies both the path to them and the conditions for recognizing them.

The typical epistemic trajectory of a theoretical unification proceeds through the correspondence tiers before arriving at identity. The formal parallels between electrical and magnetic phenomena were recognized — a Tier 2 correspondence — before the shared governing equations were identified as a Tier 3 convergence, and before Maxwell's unification established Tier 5 identity. The identity was not reached by direct investigation of identity but by the progressive tightening of correspondence until the apparent distinction between the two phenomena could no longer be sustained. This trajectory is not historically contingent; it reflects the epistemic structure of the tiers themselves.

6.3 Interdisciplinary Reasoning

The model provides a common vocabulary for negotiating the risks of interdisciplinary inference. The principal risks are symmetric: undervaluing a correspondence that reflects genuine Tier 3 convergence (dismissing it as "merely analogical"), and overvaluing a correspondence that operates only at Tier 1 or 2 (treating felt similarity as evidence of shared governing principle). Both errors are common; the model makes both visible and locatable.

The diagnostic question the model supplies — *at which tier does this correspondence operate?* — is neutral with respect to disciplinary commitments and can be asked across methodological boundaries without requiring agreement on first principles. This makes it a practical instrument for inter-domain reasoning in exactly the contexts where such reasoning is most needed and most prone to error.

7. Philosophical Implications

7.1 Correspondence and Identity as a Single Axis

The model's central structural claim is that correspondence and identity are not categorically distinct relations but points on a single axis: the progressive collapse of perceived multiplicity under increasing constraint. Tier 1 allows maximal multiplicity — two things are felt to be related, but nothing further is determined. Each subsequent tier reduces the degrees of freedom available to the two perceived things, tightening the constraints on what the relationship can be, until at Tier 5 the multiplicity collapses entirely into numerical identity.

A potential objection to the single-axis claim is that similarity and correspondence are inherently multi-dimensional: Two things may be highly similar in one respect and wholly dissimilar in another, and no single ordering captures this. The objection is correct about human similarity perception but does not reach the Hierarchy's axis, which is not a claim about how the mind represents similarity. It is a normative epistemic ordering: a ranking of how much justificatory weight a relational claim can bear, determined by how tightly the evidence constrains what the relationship can be. That ordering is one-dimensional not because similarity space is simple but because epistemic warrant under constraint-tightening is a single monotone quantity. The multi-dimensionality of resemblance is accommodated within the tiers — different dimensions of correspondence are what distinguish a richer Tier 2 mapping from a thinner one — but it does not determine which tier a claim occupies. This framing has a clarifying effect on what has sometimes been treated as a categorical distinction between analogical and identity relations. Analogy, on this account, is not a different kind of relation from identity — it is the same kind of relation at a lower degree of constraint. The question *is this an analogy or an identity?* is replaced by the more precise question: *At which tier does this relationship operate, and what constraints has the evidence established?*

One consequence of the unified axis is that the model must be explicit about its epistemic rather than ontological character. The Hierarchy evaluates the strength of relational claims about two perceived things under stated constraints; it does not assert conclusions about the ultimate constitution of reality. When identity is established at Tier 4 or Tier 5, the finding is that the evidence, under the operative constraints, warrants an identity claim — not that some metaphysical fact independent of all possible evidence has been settled. When identity cannot be established, it does not hold for purposes of the analysis. This is not agnosticism about metaphysics; it is appropriate domain restriction. The model is an instrument for evaluating relational claims, not for closing questions about what ultimately exists.

A further implication of the tier structure concerns the scope of falsifiability. Falsifiability, in the technical sense, applies only at Tier 3 and above. A Tier 1 claim — that two things feel related — cannot be falsified; it can only be examined more carefully. A Tier 2 claim — that a structural mapping exists — can be shown to be inaccurate or poorly specified, but this is a correction of the mapping, not a falsification of a necessity claim. Falsification requires a necessity claim: the demonstration that a constraint-derived element does not hold, when the Tier 3 claim asserted it must. Below Tier 3, the appropriate challenge to a relational claim is not falsification but specification — the demand that the claim be made more precise and its evidence made more explicit. This has the practical consequence that many apparent debates about whether a relational claim is "true" are in fact debates about tier: A Tier 2 mapping cannot be refuted by pointing out that it is not necessary, and a Tier 3 claim cannot be defended by appealing to structural coherence alone.

7.2 The Epistemology of Definitional Resolution

Tier 4's characterization of type identity as indexed to a defining framework has broader epistemological implications. Many disputes about whether two things are "the same" or "different" are not disputes about facts but disputes about definitional resolution — about which schema is the appropriate one for the question at hand. The model places this explicitly in the structure of Tier 4, making the resolution-dependence of identity claims a recognized feature of the analysis rather than a source of unnoticed ambiguity.

This does not make Tier 4 identity claims relative in a vicious sense. The claim that two objects share type identity under a specified schema is a fully objective claim, subject to ordinary standards of evidence and argument. What is relative is the level of definitional granularity at which identity is being assessed — and that relativity is a feature, not a defect, of identity claims at this level.

7.3 Completeness and the Identity Requirement

The model's insistence that the identity tiers are necessary completions of relational analysis, rather than optional extensions, has a philosophical grounding in the concept of epistemic completeness. An analysis of a relationship between two perceived things is complete, on this account, only when the question of their identity — at the level of type and of individual reference — has been addressed and either established or excluded. Stopping at Tier 3, however well-established the correspondence, leaves open a question whose answer would change the character of the relationship.

This requirement does not mean that identity must be established in every analysis — only that it must be considered. In many cases, the evidence will clearly establish that the two things are definitionally distinct tokens of different types, and the analysis will terminate at the appropriate correspondence tier. But the termination should be the result of evidence, not of the analyst's prior assumption that identity is not in question.

8. Conclusion

The Hierarchy of Relational Claims offers a principled five-tier taxonomy of the claims we make about the relationships between things, organized by what is preserved or collapsed under the claimed mapping. The three correspondence tiers — *Impression*, *Structure*, and *Constraint* — distinguish levels of relational strength between things that remain genuinely distinct. The two identity tiers — *Definition* and *Referent* — mark the discovery that the apparent duality was illusory at the level of type or of individual object.

The model's central contributions are four. First, it provides a unified axis on which correspondence and identity are treated as points in a single progression rather than categorically distinct relations. Second, it distinguishes constraint-governed structural convergence (Tier 3) from merely structural correspondence (Tier 2), clarifying the conditions under which cross-domain inference is genuinely supported by relational evidence. Third, it characterizes type identity as indexed to definitional resolution, making explicit the framework-dependence of Tier 4 claims. Fourth, and most distinctively, it insists that the identity tiers are necessary completions of relational analysis: If identity obtains and is not reached, the analysis is incomplete in a consequential sense, not merely an aspirational one.

The deepest claim the model makes is that relational analysis is complete only when the question of multiplicity has been resolved — when the evidence has established, at each level, whether the apparent duality of the perceived things survives or collapses. Most analyses will confirm that two distinct things are genuinely distinct. But some will not. And the difference, when it matters, matters entirely.

Appendix: Summary of the Five Tiers

The following summarizes the five tiers, their group membership, the dimension conserved or collapsed at each level, and the key question each addresses.

Tier 1 — *Correspondence of Impression*: Felt alignment between two perceived things, without any specified dimension of comparison. Answers: *Do these feel related?*

Tier 2 — *Correspondence of Structure*: Specified mapping of elements and relations between two perceived things; relational topology preserved. Answers: *How are they related?*

Tier 3 — *Correspondence of Constraint*: Structural convergence necessitated by shared governing constraints; convergence is not accidental but forced. Answers: *Why must they be related in this way?*

Tier 4 — *Identity of Definition*: The two perceived things instantiate the same defining specification; type identity holds relative to a specified schema. Answers: *Are these the same kind of thing?*

Tier 5 — *Identity of Referent*: The two perceived things are the same individual object, encountered from different vantage points or under different descriptions. Answers: *Are these the same thing?*

Entailment: Tier 5 ⇒ Tier 4 ⇒ Tier 3 ⇒ Tier 2 ⇒ Tier 1. The converse does not hold at any level.

Identity of Definition is always relative to the level of definition being applied.