

---

## entailment\_gold\_inputs\_disagrees

---

- 
- Premise: A construction for the free monoidal category on a promonoidal category is provided.
  - Hypothesis: The free monoidal category exists for any promonoidal category.
  - Label: entailment
  - Machine Label: neutral
- 

- 
- Premise: These examples were not fabricated to illustrate the abstract possibility of misbehavior.
  - Hypothesis: The examples were actual instances of misbehavior.
  - Label: entailment
  - Machine Label: neutral
- 

- 
- Premise: An equational hull of VAR w.r.t. all operations is also discussed.
  - Hypothesis: The equational theory of VAR is complete.
  - Label: entailment
  - Machine Label: neutral
- 

- 
- Premise: Examples include attractive fixpoints, repulsive fixpoints, strange attractors and the logistic equation.
  - Hypothesis: These are examples of nonlinear dynamical systems.
  - Label: entailment
  - Machine Label: neutral
-

- 
- 
- Premise: The problem of relating a factorization system to a pointed endofunctor is considered.
  - Hypothesis: There exists a relationship between a factorization system and a pointed endofunctor.
  - Label: entailment
  - Machine Label: neutral
- 
- 

- Premise: The first involves sinister morphisms out of the base category and sinister transformations.
  - Hypothesis: The second involves sinister morphisms into the base category and sinister transformations.
  - Label: entailment
  - Machine Label: contradiction
- 
- 

- Premise: This work is a contribution to a recent field, Directed Algebraic Topology.
  - Hypothesis: This work explores applications of Directed Algebraic Topology.
  - Label: entailment
  - Machine Label: neutral
- 
- 

- Premise: Typically, these bicategories contain representations which are indecomposable but not irreducible.
  - Hypothesis: Representations in these bicategories are decomposable but not reducible.
  - Label: entailment
  - Machine Label: contradiction
-

- 
- Premise: The constructions have the same objects, but are rather different in other ways.
  - Hypothesis: The objects are the only similarity among the constructions.
  - Label: entailment
  - Machine Label: neutral
- 
- 

- 
- 
- Premise: Nuclei of categories of modules are considered as an example.
  - Hypothesis: Modules have nuclei in category theory.
  - Label: entailment
  - Machine Label: neutral
- 
- 

- 
- 
- Premise: For general dimensions  $k$  and  $n$  we indicate what the construction should be.
  - Hypothesis: There is a defined construction for all dimensions  $k$  and  $n$ .
  - Label: entailment
  - Machine Label: neutral
- 
- 

- 
- 
- Premise: Let  $R$  be a commutative ring whose complete ring of quotients is  $R$ -injective.
  - Hypothesis: Every non-injective commutative ring has a non-injective ring of quotients.
  - Label: entailment
  - Machine Label: neutral
- 
-

- Premise: When  $\hat{I}^0 = \check{I}^0$  it includes the pretopos completion of a coherent category.
  - Hypothesis: When  $\hat{I}^0 \neq \check{I}^0$  it does not include the pretopos completion of a coherent category.
  - Label: entailment
  - Machine Label: neutral
- 
- 

- Premise: These include conditions on relations as well as conditions on simplicial objects.
  - Hypothesis: Conditions on relations and simplicial objects are necessary.
  - Label: entailment
  - Machine Label: neutral
- 
- 

- Premise: We introduce a category that represents varying risk as well as ambiguity.
  - Hypothesis: The category introduced is useful for analyzing and quantifying risk and ambiguity.
  - Label: entailment
  - Machine Label: neutral
- 
- 

- Premise: We work through numerous examples to demonstrate the power of these notions.
  - Hypothesis: These notions are effective in solving various problems.
  - Label: entailment
  - Machine Label: neutral
- 
-

- Premise: If the category is additive, we define a sheaf of categories of analytic functions.
  - Hypothesis: The category is additive.
  - Label: entailment
  - Machine Label: neutral
- 
- 

- Premise: Here ``balanced" can be omitted if the category is additive.
  - Hypothesis: If the category is not additive, "balanced" cannot be omitted.
  - Label: entailment
  - Machine Label: neutral
- 
- 

- Premise: There are few known computable examples of non-abelian surface holonomy.
  - Hypothesis: Computing non-abelian surface holonomy examples is difficult.
  - Label: entailment
  - Machine Label: neutral
- 
- 

- Premise: We do not require the base monoidal category  $M$  to be closed or symmetric monoidal.
  - Hypothesis: The requirement for the base monoidal category  $M$  to be closed or symmetric monoidal is not necessary.
  - Label: entailment
  - Machine Label: neutral
- 
-

- Premise: Our first important result is similar to that of Lack and Street.
  - Hypothesis: Our first important result is based on the work of Lack and Street.
  - Label: entailment
  - Machine Label: neutral
- 
- 

- Premise: Examples are shown to arise from 2-category theory and from bialgebras.
  - Hypothesis: Examples of opetopes are found in 2-category theory and bialgebras.
  - Label: entailment
  - Machine Label: neutral
- 
- 

### **neutral\_gold\_inputs\_disagrees**

---

---

- Premise: This yields a quadratic algorithm deciding the equality of diagrams in a free double category.
  - Hypothesis: The decision of diagram equality in a free double category can be made using a quadratic algorithm.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: The right adjoint of this Quillen equivalence is the classical Segal's Nerve functor.
  - Hypothesis: The Quillen equivalence has a right adjoint.
  - Label: neutral
- 
-

- Machine Label: entailment
- 
- 

- Premise: Along the way we prove numerous results showing that the enchilada category is rather strange.
  - Hypothesis: The enchilada category has some peculiar properties.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: Persistence has proved to be a valuable tool to analyze real world data robustly.
  - Hypothesis: Persistence can be used to analyze a wide range of real world data.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: This note shows every Grothendieck topos has such a site.
  - Hypothesis: Every Grothendieck topos has a site.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: On the other hand subcanonical one-way sites are very special.
  - Hypothesis: Subcanonical one-way sites have unique properties.
  - Label: neutral
  - Machine Label: entailment
- 
-

- Premise: A site criterion for petit toposes will probably require subcanonical sites.
  - Hypothesis: Subcanonical sites are necessary for petit toposes site criterion.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: We show that associative coequalizing multiplications suffice and call the resulting structures interpolads.
  - Hypothesis: Interpolads can be formed using associative coequalizing multiplications.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: Often used implicitly, the precise statement of this property and its proof appears here.
  - Hypothesis: The precise statement of the property is not commonly used.
  - Label: neutral
  - Machine Label: contradiction
- 
- 

- Premise: However, we provide examples to show that the reflector and coreflector need not coincide.
  - Hypothesis: Reflector and coreflector can be different in some cases.
  - Label: neutral
  - Machine Label: entailment
- 
-



- Premise: In this paper we study the lattice of quantic conuclei for orthomodular lattices.
  - Hypothesis: The lattice of quantic conuclei is useful in studying orthomodular lattices.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: As a corollary, we obtain that equivalence of data-specifications is decidable.
  - Hypothesis: Decidability of equivalence for data-specifications.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: Their universal properties can then be derived with standard techniques as used in duality theory.
  - Hypothesis: Duality theory can be applied to derive the universal properties of objects.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: Here we show an analogous description of locally finitely multipresentable categories.
  - Hypothesis: There exists an analogous description for locally finitely multipresentable categories.
  - Label: neutral
  - Machine Label: entailment
- 
-

- Premise: In addition, we define and study the appropriate categorical structure underlying the MIX rule.
  - Hypothesis: The MIX rule can be categorized and studied.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: We show that these doctrines are instances of more general pseudomonads.
  - Hypothesis: There are more general pseudomonads.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: 2-crossed complexes are introduced and similar freeness results for these are discussed.
  - Hypothesis: There exist similar freeness results for 2-crossed complexes.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: Consequently, an equivariant simplicial version of the Whitehead Theorem is derived.
  - Hypothesis: There exists an equivariant simplicial version of the Whitehead Theorem.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: This role makes the relationship between projective objects and the tensor product especially critical.

- Hypothesis: The tensor product is critical for projective objects.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: Conditions are given under which such a structure interacts appropriately with projective objects.
  - Hypothesis: The structure interacts appropriately with projective objects.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: These examples were not fabricated to illustrate the abstract possibility of misbehavior.
  - Hypothesis: The examples were not intentionally created to demonstrate misconduct.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: These results can be applied to characterize localizations of naturally Maltsev varieties.
  - Hypothesis: Naturally Maltsev varieties have distinct localizations.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: We define what is a pseudomonad with compatible structure with respect to two given pseudomonads.

- Hypothesis: Two given pseudomonads have compatible structure.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: This all extends routinely to local presentability with respect to any regular cardinal.
  - Hypothesis: Local presentability applies to regular cardinals.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: The main tool in the new approach is the Chu construction.
  - Hypothesis: The Chu construction is a useful tool.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: Finally, we show loop and suspension functors in the pointed case.
  - Hypothesis: Loop and suspension functors are applicable in the pointed case.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- Premise: The purpose of this paper is to indicate some bicategorical properties of ring theory.
- Hypothesis: Ring theory exhibits some bicategorical properties.
- Label: neutral

- Machine Label: entailment
- 

- Premise: The appendix provides the definitions of a braided monoidal bicategory and sylleptic monoidal bicategory.
  - Hypothesis: The appendix defines braided and sylleptic monoidal bicategories.
  - Label: neutral
  - Machine Label: entailment
- 

- Premise: In this paper we show that under slightly stronger assumptions the converse is also true.
  - Hypothesis: Slightly stronger assumptions imply the converse.
  - Label: neutral
  - Machine Label: entailment
- 

- Premise: The 2-category VAR of finitary varieties is not varietal over CAT.
  - Hypothesis: Finitary varieties cannot be characterized by categories.
  - Label: neutral
  - Machine Label: contradiction
- 

- Premise: We give a self-contained presentation of Batanin's construction that suits our purposes.
- Hypothesis: Our purposes can be achieved using Batanin's construction.
- Label: neutral
- Machine Label: entailment

- 
- 
- Premise: Our work extends naturally to the braid group on countably many generators.
  - Hypothesis: The braid group on countably many generators is extendable.
  - Label: neutral
  - Machine Label: entailment
- 
- 

- 
- 
- Premise: Exact sequences are a well known notion in homological algebra.
  - Hypothesis: Exact sequences play an important role in homological algebra.
  - Label: neutral
  - Machine Label: entailment
- 
- 

---

---

### **contradiction\_gold\_inputs\_disagrees**

---

---

- 
- 
- Premise: This yields a quadratic algorithm deciding the equality of diagrams in a free double category.
  - Hypothesis: There are no non-quadratic algorithms for deciding the equality of diagrams in a free double category.
  - Label: contradiction
  - Machine Label: neutral
- 
- 
- Premise: The right adjoint of this Quillen equivalence is the classical Segal's Nerve functor.
- 
-

- Hypothesis: The left adjoint of this Quillen equivalence is not the classical Segal's Nerve functor.
  - Label: contradiction
  - Machine Label: entailment
- 

- Premise: Along the way we prove numerous results showing that the enchilada category is rather strange.
  - Hypothesis: The enchilada category is not well-defined.
  - Label: contradiction
  - Machine Label: neutral
- 

- Premise: On the other hand subcanonical one-way sites are very special.
  - Hypothesis: Canonical one-way sites are not special.
  - Label: contradiction
  - Machine Label: neutral
- 

- Premise: A site criterion for petit toposes will probably require subcanonical sites.
  - Hypothesis: A site criterion for large toposes will probably not require subcanonical sites.
  - Label: contradiction
  - Machine Label: neutral
- 

- Premise: We show that associative coequalizing multiplications suffice and call the resulting structures interpolads.
- Hypothesis: Non-associative coequalizing multiplications cannot lead to interpolads.

- Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: Often used implicitly, the precise statement of this property and its proof appears here.
  - Hypothesis: The property is never used explicitly in any context.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: Results on the finiteness of induced crossed modules are proved both algebraically and topologically.
  - Hypothesis: All induced crossed modules are finite.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: In this paper we study the lattice of quantic conuclei for orthomodular lattices.
  - Hypothesis: The lattice of quantic conuclei cannot be fully understood for orthomodular lattices.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: We discuss two versions of a conjecture attributed to M. Barr.
- Hypothesis: The conjecture attributed to M. Barr cannot be proven.
- Label: contradiction
- Machine Label: neutral



- 
- 
- Premise: We introduce MD-sketches, which are a particular kind of Finite Sum sketches.
  - Hypothesis: MD-sketches cannot be used for infinite Sum sketches.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: As a corollary, we obtain that equivalence of data-specifications is decidable.
  - Hypothesis: Equivalence of non-data-specifications is undecidable.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: These provide a new construction of the simplicial 2-category, Delta.
  - Hypothesis: This construction does not apply to other categories or higher dimensional structures.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: The concept of algebra is given as an adjunction with invertible counit.
  - Hypothesis: Algebra can't be defined without invertible counit.
  - Label: contradiction
  - Machine Label: neutral
- 
-

- Premise: A particular attention is devoted to enriched locally presentable categories and enriched functors.
  - Hypothesis: Enriched locally presentable categories are the only types of categories that are considered.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: Some examples are parity complexes, pasting schemes and directed complexes.
  - Hypothesis: All examples necessarily involve two or more dimensions.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: Conditions are given under which such a structure interacts appropriately with projective objects.
  - Hypothesis: All projective objects interact appropriately with the given structure.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: We give an abstract characterization of categories which are localizations of Maltsev varieties.
  - Hypothesis: All Maltsev varieties are finite.
  - Label: contradiction
  - Machine Label: neutral
- 
-

- Premise: These results can be applied to characterize localizations of naturally Maltsev varieties.
  - Hypothesis: The results cannot be applied to non-Maltsev varieties.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: Using the Chu-construction, we define a group algebra for topological Hausdorff groups.
  - Hypothesis: Every topological Hausdorff group has a unique Chu-construction group algebra.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: Finally, we show loop and suspension functors in the pointed case.
  - Hypothesis: Loop and suspension functors are not applicable in the non-pointed case.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: We present some new findings concerning branched covers in topos theory.
  - Hypothesis: Branched covers in topos theory have no practical applications in the real world.
  - Label: contradiction
  - Machine Label: neutral
- 
-

- Premise: An equational hull of VAR w.r.t. all operations is also discussed.
  - Hypothesis: The equational hull of VAR w.r.t. all operations is provable.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: We give a self-contained presentation of Batanin's construction that suits our purposes.
  - Hypothesis: Other presentations of Batanin's construction do not suit our purposes.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: A feature of a ramification groupoid is that it carries a certain order structure.
  - Hypothesis: A feature of a ramification groupoid is that it is topologically connected.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: Our work extends naturally to the braid group on countably many generators.
  - Hypothesis: Our work cannot extend to the braid group on uncountably many generators.
  - Label: contradiction
  - Machine Label: neutral
- 
-

- Premise: We demonstrate the soundness and completeness of our axiomatization with respect to cut-elimination.
  - Hypothesis: Our axiomatization can be applied to cut-elimination in various contexts.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: Finally the Tannaka-Krein reconstruction theorem is extended to the entropic setting.
  - Hypothesis: The Tannaka-Krein reconstruction theorem cannot be applied to non-entropic settings.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: A more technical characterization of axiomatizable classes in geometric logic is presented.
  - Hypothesis: Axiomatizable classes in geometric logic have no practical application.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: We give two applications: sheaves over locales and group actions.
  - Hypothesis: Sheaves over topological spaces do not have any applications beyond locales and group actions.
  - Label: contradiction
  - Machine Label: neutral
- 
-

- Premise: Hopf formulas for the second and third homology of a Lie algebra are proved.
  - Hypothesis: There are no Hopf formulas for the fourth homology of a Lie algebra.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: It is shown that every codescent morphism of groups is effective.
  - Hypothesis: All morphisms of groups are codescent.
  - Label: contradiction
  - Machine Label: neutral
- 
- 

- Premise: The general notion of a module between two morphisms of bicategories is described.
  - Hypothesis: Every bicategory has at least one module.
  - Label: contradiction
  - Machine Label: neutral
-