

Actor-Relationship Logic (ARL) establishes itself through three foundational axioms that require no further justification or grounding: Actors exist as entities, Methods exist as sets of rules, and Relationships exist as connectors. These axioms form the irreducible basis upon which the entire system constructs itself. Relationships serve as pure connectors, facilitating four fundamental types of connections: Actor to Actor, Actor to Method, Method to Actor, and Method to Method, thus enabling all possible interactions within the system.

The nature of Actors within this framework is precisely defined: they cannot exist without at least one relationship, cannot simultaneously function as Methods, and can be any type of entity, whether living, non-living, abstract, or concrete. Actors maintain the ability to participate in multiple relationships simultaneously, allowing for complex interaction networks. Methods, in contrast, must contain at least one rule to qualify as a Method, are inherently discrete in nature, and cannot simultaneously function as Actors. Significantly, Methods can emerge from Actor to Actor relationships, demonstrating the system's capacity for evolutionary development. Like Actors, Methods can participate in multiple relationships simultaneously.

Relationships themselves maintain strict definitional boundaries: they function purely as connectors, possess no inherent properties of their own, can combine with other relationships, but cannot connect to other relationships. This pure connector nature enables the dynamic interaction between Actors and Methods without adding complexity to the basic system structure.

The system incorporates a fundamental principle known as the Common Ground Rule, which states that when Actors align in their relationships to Methods - essentially sharing reasoning - they establish objective truth within that context. This can manifest as Universal Common Ground, involving alignment among all Actors, or Local Common Ground, occurring between any subset of Actors. This rule requires no external validation and operates effectively at any scale of Actor interaction.

Truth within this system emerges from relationships rather than existing independently, manifesting through Actor to Method connections (rule application), Actor to Actor connections (interaction patterns), and Method to Method connections (rule transformation). The system reveals reality as inherently dynamic due to the requirement for relationships, with context dependence based on active Actors, applied Methods, and established relationships, precluding the possibility of static existence.

The framework naturally accommodates evolution through multiple mechanisms: new Methods emerge from Actor to Actor relationships, Methods combine through Method to Method relationships, and patterns stabilize through repeated interactions. Multiple valid perspectives exist based on different relationships, with no inherently privileged viewpoint, though objectivity emerges through Common Ground. All viewpoints remain relationship-dependent within the system.

Measurement theory within this framework conceptualizes measurement as an Actor to Method to Actor relationship, acknowledging that no observer-independent measurement is possible and the observer always remains integrated within the system. Objectivity in measurement achieves validation through Common Ground rather than through external absolute reference.

The system exhibits continuous relationship formation and transformation, emergence of new Methods through interaction, evolution of relationship patterns, and formation and dissolution of Common Ground. Truth operations proceed through context-dependent validation, relationship-based verification, Common Ground establishment, and the accommodation of multiple simultaneous truth values. Method operations encompass rule combination, pattern emergence, Method evolution, and rule application.

Specific boundaries constrain the system: relationships cannot relate to relationships, Actors and Methods must remain distinct categories, and all interactions require relationship mediation. However, the system's scope encompasses all forms of interaction, applies to all scales of

organization, includes all types of entities and rules, and covers all forms of relationship connection. Actor-Relationship Logic thus presents itself as a complete and self-contained system for understanding reality through the interaction of Actors and Methods via Relationships, with Common Ground enabling objective truth through alignment of relationships.