

# **Why the Mind Must Fragment to Survive: A Mathematical Foundation for Psychological Parts in Systemic NLPt**

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Introduction. Why must the mind fragment in the first place? Why do parts seem functionally independent, yet the person retains a coherent sense of self? Why does inner conflict feel so visceral and paralyzing? Across most psychotherapeutic traditions (psychoanalytic, Gestalt, Transactional Analysis, psychodrama and NLPt), clinicians have long observed that the psyche does not function as a monolithic whole. Ego states, introjects, parts, and sub-personalities are not metaphors of convenience – they appear as a structural necessity of human psychological organisation. Until recently, however, no formal account existed for why this multiplicity is not only universal but mathematically inevitable. Methods. A formal mathematical answer to these clinical questions, drawing on a model published in March 2026 that formalizes the human mind as a living complex system using Category Theory – the same mathematical framework used to describe living organisms. Emerging from NLPt (Neurolinguistic Psychotherapy), a systemic modality that has evolved the natural systems modeling of NLP toward rigorous formal modeling, this approach builds a bridge between the objective world and the subjective phenomenological world. Results and Discussion. This paper leads to clinical and theoretical implications of PRS model. We are going to show that the formation of distinct psychological parts is not only a coping strategy or a cultural artefact – it is a direct consequence of bounded cognitive imminence. Because no single psychological rule can entail an unlimited number of future responses, the mind is forced to partition its resilience strategies into a finite constellation of functionally independent sets. These sets are orthogonal in their application: they process distinct dimensions of experience (somatic, relational, analytical) without mutual interference, which explains the phenomenological distinctness of parts, the suddenness of state transitions, and the mutual exclusivity of inner conflict. A mind occupied by one such state cannot simultaneously occupy an orthogonal one: what clients experience as being torn is precisely this – the cognitive system attempting to collapse between two mutually incompatible representations. Crucially, the same model demonstrates that these independent parts cannot exist in isolation without losing their adaptive capacity. For the system to remain a living, self-repairing whole, the independent sets must interact across their boundaries. Clinically, this mirrors what every modality has discovered empirically: therapeutic work with parts is not about silencing or eliminating them, but about restoring the cross-boundary entanglement that keeps the self coherent. Implications. This framework opens a new register for psychotherapeutic dialogue: one in which the necessity of parts, the geometry of inner conflict, and the conditions for integration can be understood not only experientially and narratively, but with the precision of formal systems theory.