

Parallel Life Syndrome: An Exploratory Mixed-Methods Study of Conceptual Development, Preliminary Psychometric Validation of the Parallel Life Syndrome Inventory, and Phenomenological Characterization

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Received on: May 06, 2026 | Accepted on: August 28, 2026 | Published on: September 30, 2026

Abstract

Background:

Psychological concepts like dissociation, maladaptive daydreaming, or narrative identity do not well describe experiences of persistent parallel or alternating self-narratives with retained meta-awareness. We created the Parallel Life Syndrome Inventory (PLSI) as a preliminary research tool and propose Parallel Life Syndrome (PLS) as an exploratory multidimensional psycho-cognitive construct to enable systematic examination of these experiences. PLS should not be viewed as a diagnostic tool because it is currently just meant to be a hypothesis-generating construct.

Objective:

The objectives of this study were to conduct a preliminary psychometric evaluation of the recently created Parallel Life Syndrome Inventory (PLSI), develop an interdisciplinary conceptual framework for Parallel Life Syndrome through systematic synthesis of the literature, and investigate the phenomenological traits of people reporting persistent parallel self-experiences.

Methods:

Three complimentary phases of an exploratory sequential mixed-methods study were carried out. First, evidence for identity multiplicity, self-referential cognition, dissociation, and metacognitive awareness was gathered using a systematic literature review that adhered to PRISMA 2020 principles. Second, the results guided the creation of the 30-item Parallel Life Syndrome Inventory (PLSI), which was tested psychometrically in 180 adult participants who were purposefully selected. Construct validity, exploratory factor analysis, internal consistency, and sample adequacy were evaluated. Third, the participants' lived experiences were contextualized and interpreted using qualitative phenomenological case analyses.

Results:

The suggested construct has a conceptual basis thanks to the systematic review's identification of recurrent theoretical themes including identity multiplicity, self-referential processing, and

metacognitive awareness. The data's eligibility for exploratory factor analysis was supported by the PLSI's outstanding preliminary internal consistency (Cronbach's $\alpha = 0.97$), great sample adequacy (Kaiser-Meyer-Olkin = 0.97), and substantial Bartlett's Test of Sphericity ($\chi^2 = 3335.8$, $p < 0.001$). While there was a slight positive correlation ($r = 0.33$, $p < 0.001$) between PLSI scores and perceived stress, there were weak correlations with established measures of dissociation, maladaptive daydreaming, anxiety, depression, and sleep quality. This suggests that the PLSI may capture experiences that are not fully captured by current instruments. Parallel self-narratives were routinely found by qualitative studies, which also retained insight, and retained meta-awareness across participants, complementing the quantitative findings.

Conclusion:

The current study offers first proof that the Parallel Life Syndrome Inventory may be used to operationalize Parallel Life Syndrome as an exploratory multidimensional psycho-cognitive entity. Together, the qualitative analysis, early psychometric results, and systematic review provide an integrated conceptual framework for further research. Crucially, the suggested neurocognitive and neurobiological mechanisms covered in this publication are speculative and were not specifically investigated in this investigation. Therefore, rather than being confirming, the results should be understood as creating hypotheses. Before considering any clinical or diagnostic use, independent psychometric validation, confirmatory factor analysis, longitudinal studies, multicentre studies, and multimodal neurobiological research are necessary.

Keywords: *Parallel Life Syndrome (PLS), identity multiplicity, dual cognition, neurocognitive networks, dopamine, serotonin, glutamate, mixed-method research, homoeopathy, DMN-CEN interaction.*

1. Introduction

A fundamental topic in cognitive neuroscience and psychology is how people create and preserve a cohesive sense of self. Instead of viewing identity as a static notion, modern theories see it as a dynamic, context-dependent process modified by social, emotional, and cognitive interactions (Conway & Pleydell-Pearce, 2000; McAdams & McLean, 2013). While the majority of people are able to effectively integrate different roles in their personal, social, and professional lives, some people describe ongoing experiences with alternating or simultaneous self-narratives while maintaining insight and partial reality testing. The current psychological frameworks do not adequately explain these experiences.

The coexistence of parallel self-narratives with preserved meta-awareness is not specifically addressed by current theoretical models, such as narrative identity, self-discrepancy, dual-process, and metacognitive theories, although they offer significant insights into self-representation (Higgins, 1987; Kahneman, 2011; McAdams & McLean, 2013; Wells, 2009). Similar changes in self-experience are

seen in clinical conditions like schizophrenia, depersonalization–derealization disorder, maladaptive daydreaming, and dissociative identity disorder; however, these conditions differ from the current phenomenon in terms of preserved insight, reality testing, and memory continuity (American Psychiatric Association, 2022; Sierra & Berrios, 1998; Somer, 2002; van Os & Kapur, 2009).

We propose Parallel Life Syndrome (PLS), an exploratory multidimensional psycho-cognitive construct defined by persistent parallel or alternating self-narratives with retained meta-awareness and partial reality testing, to enable systematic research of these experiences. Crucially, PLS should not be understood as a formal psychiatric diagnosis; rather, it is offered exclusively as an operational research concept meant to facilitate empirical exploration. Additional psychometric testing and independent replication are necessary for its conceptual validity.

Theoretical frameworks from modern cognitive neuroscience, in particular the relationships between the Default Mode Network, Salience Network, and Executive Control Network—all

of which are connected to self-referential processing and cognitive control—may aid in placing these experiences in context (Buckner et al., 2008; Menon, 2011). However, neuroimaging, electrophysiological, and biomarker evaluations were not included in this investigation. Therefore, rather than providing empirical support for PLS, any explanation of neurobiological processes is offered as theoretical backdrop to direct future hypothesis-driven research.

Similar to this, people now have more options to retain numerous social identities in both real-world and virtual settings due to sociocultural shifts brought about by increased digital participation (Turkle, 2015). Even though these experiences are often adaptive, they

demonstrate the intricacy of modern identity construction and emphasize the necessity of methodically examining enduring parallel self-representations.

The lack of standardized tools that can evaluate these experiences is a significant barrier to empirical study in this field. Instead of assessing the presence of parallel self-narratives with maintained insight, current surveys focus on dissociation, maladaptive daydreaming, psychotic symptoms, or identity disruption. Therefore, creating a specific research tool is a crucial first step in operationalizing the suggested concept and facilitating methodical psychometric assessment.

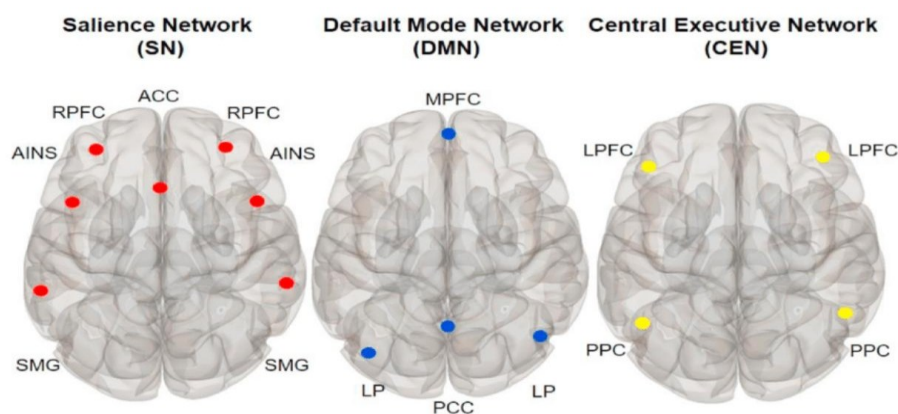


Figure 1 Location of Default Mode Network, Central Executive Network & Salience Network

Dimension	Description	Indicative Markers
Cognitive	Dual narrative processing	Parallel memory tracks
Perceptual	Altered reality layering	Blended or alternating realities
Emotional	Divergent affective states	Emotional incongruence
Behavioural	Context-dependent actions	Role-switching tendencies
Metacognitive	Awareness of duality	Insight retained



Figure 2 Core Features of Parallel Life Syndrome

1.1 Operational Definition

The operational definition of Parallel Life Syndrome (PLS) for the purposes of this study is a proposed multidimensional psychocognitive construct that is characterized by partial reality testing, preserved meta-awareness, and persistent experiences of simultaneous or alternating self-narratives. This operational definition should not be understood as establishing PLS as a formal psychiatric diagnosis; rather, it was created to enable systematic measurement and psychometric evaluation. To ascertain its therapeutic value, further multicentre research utilizing independent psychometric validation, longitudinal follow-up, and multimodal neurobiological investigations will be necessary.

It is crucial to stress that rather than establishing PLS as a formal diagnostic category, the current operational definition aims to support empirical research and psychometric assessment. Future multicentre validation studies will be necessary to establish the diagnostic bounds and clinical usefulness of the construct.

1.2 Differential Analysis

While Parallel Life Syndrome (PLS) varies in numerous significant ways, it shares certain phenomenological characteristics with well-known psychological and psychiatric notions. People who report PLS-like experiences typically maintain continuity of awareness and meta-awareness across parallel experiential streams, in contrast to Dissociative Identity Disorder (DID), which is typified by identity

fragmentation, amnesia, and discontinuity of self (American Psychiatric Association, 2022; Putnam, 1986) (Spiegel et al., 2011). Similar to Maladaptive Daydreaming, which is characterized by immersive fiction that is acknowledged as internally created (Somer, 2002), parallel storylines are often described by people with PLS as subjectively coexisting rather than entirely imagined.

Additionally, PLS is not like schizophrenia, which is characterized by psychotic symptoms and poor reality testing (van Os & Kapur, 2009). On the other hand, those who report having PLS usually only have a limited understanding of their experiences. Similarly, PLS is characterized by simultaneous involvement with various self-narratives rather than subjective detachment, while depersonalization–derealization disease typically includes separation from the self or environment (Sierra & Berrios, 1998). Despite having intact consciousness, lucid dreaming is limited to the sleep state and is consequently very different from the waking experiences reported in PLS (LaBerge, 1985).

These sensations may be understood from a homoeopathic standpoint as signs of disruptions in the vital force and miasmatic dynamics, however this is more of a supplementary theoretical framework than an experimentally supported explanation (Hahnemann, 1810). Overall, rather than being a formal diagnostic category, the suggested PLS construct should be viewed as an exploratory research framework designed to support methodical exploration.

Table 1 Differential study of PLS

Parameter	PLS	DID	MD	Schizophrenia	DPD
Identity Structure	Parallel, coexisting	Fragmented, switching	Unified	Disorganized	Detached
Reality Testing	Partially intact	Variable	Intact	Impaired	Intact
Awareness	Meta-awareness present	Often absent	Present	Limited	Present
Memory Continuity	Mostly preserved	Disrupted	Preserved	Disorganized	Preserved
Experiential Quality	Dual reality	Separate identities	Fantasy immersion	Hallucinations/delusions	Unreal detachment

1.3. Theoretical Foundations

Analysis of the Parallel Life Syndrome demands a multidisciplinary approach, because of its complexity & multispectral integration.

1.3.1 Philosophical Foundations: Ontology of Self and Multiplicity

Several well-known psychological and cognitive theories are incorporated into the suggested PLS framework. Together, these theories offer a conceptual foundation for developing empirical hypotheses about identity multiplicity, self-awareness, and cognitive integration, even if none of them separately explains the entire spectrum of phenomenological phenomena reported in PLS. A fundamental framework for understanding

Parallel Life Syndrome is established by philosophical studies on the nature of the self. Multiple simultaneous experience states are conceptually possible according to classical Cartesian dualism, which holds that the mind and body are distinct (Descartes, 1641). On the other hand, phenomenology, especially as expressed by Husserl, highlights lived experience (Lebenswelt) as the main location where reality is constructed (Husserl, 1913). According to this viewpoint, parallel intentional structures, in which awareness concurrently creates several experiencing worlds, may be represented as parallel life syndrome. Furthermore, according to narrative identity theory, the self is created by continuous narrative integration rather than being fixed (Ricoeur, 1992). By adding two narrative streams, PLS undermines this integration and may lead to a "polyphonic self."

Table 2 Philosophical considerations of the Parallel Life Syndrome

Philosophical School	Core Idea	Relevance to PLS
Cartesian Dualism	Mind–body separation	Enables dual experiential states
Phenomenology	Reality as lived experience	Parallel intentional worlds
Existentialism	Self as evolving	Multiple authentic selves
Narrative Theory	Self as story	Dual narrative continuity

1.3.2 Psychological Foundations: Cognitive and Identity Theories

The architectural frameworks that explain contradictory or numerous self-representations can be used to psychologically study Parallel Life Syndrome. According to cognitive dissonance theory, people aim for internal consistency, although parallel belief systems may persist in some circumstances (Festinger, 1957). The gap between real, ideal, and ought

selves is also highlighted by self-discrepancy theory (Higgins, 1987), which in extreme cases may develop into parallel experience identities. The theory that people create several self-stories but usually combine them into a cohesive whole is further supported by narrative psychology. Multiple narratives may be activated simultaneously as a result of PLS's failure or modification of this integrative function.

Table 3 Comparative Analysis between different Psychological Constructs

Theory	Key Proponent(s)	Core Concept	Underlying Mechanism	Relevance to PLS	Interpretive Insight for PLS
Cognitive Dissonance Theory	Leon Festinger (1957)	Individuals strive for internal consistency between beliefs and experiences	Simultaneous holding of conflicting cognitions leading to psychological tension	PLS may involve sustained coexistence of conflicting self-realities	Suggests PLS is not resolution of dissonance but stabilization of dual cognition streams
Self-Discrepancy Theory	E. Tory Higgins (1987)	Disparity between actual, ideal, and ought selves	Cognitive-emotional gap producing distress or motivation	Parallel identities in PLS may represent extreme divergence of self-domains	Frames PLS as co-activation of multiple self-representations rather than conflict alone
Narrative Identity Theory	Paul Ricoeur (1992)	Identity constructed through evolving personal narratives	Integration of life events into coherent story	PLS reflects breakdown or bifurcation of narrative integration	Indicates parallel narrative continuity instead of fragmentation
Dissociation Theory	Pierre Janet (1889)	Splitting of consciousness under stress or trauma	Compartmentalization of memory and identity	PLS differs by maintaining awareness across states	Suggests parallel processing rather than dissociative amnesia
Metacognitive Theory	Adrian Wells (2000)	Awareness and regulation of one's own thought processes	Monitoring and control of cognition	Individuals with PLS often retain awareness of dual experiences	Highlights meta-awareness as a defining feature of PLS

Schema Theory	Frederic Bartlett (1932)	Cognitive schemas organize perception and memory	Activation of multiple schema networks	PLS may involve simultaneous activation of competing schemas	Explains parallel interpretation of reality through dual schema systems
Dual Process Theory	Daniel Kahneman (2011)	Two systems: intuitive (fast) and analytical (slow) thinking	Interaction between automatic and controlled processes	PLS may involve extended independence of dual processing systems	Suggests functional decoupling of cognitive systems
Theory of Mind (ToM)	Theory of Mind	Ability to attribute mental states to self and others	Simulation of multiple perspectives	PLS may extend ToM internally toward multiple “selves”	Implies internalization of multiple agent-like perspectives
Constructivist Psychology	Jean Piaget	Reality constructed through cognitive processes	Active meaning-making and adaptation	PLS may represent alternative constructed realities	Supports subjective validity of parallel experiential worlds
Self-Complexity Theory	Patricia Linville (1985)	Individuals possess multiple self-aspects	Complexity buffers stress but may increase fragmentation	PLS may represent extreme self-complexity	Suggests hyper-differentiation of self-structure
Information Processing Theory	Cognitive Psychology	Mind as system processing multiple inputs	Parallel and serial processing pathways	PLS may arise from parallel processing overload or divergence	Frames PLS as multi-stream cognitive processing phenomenon
Attachment Theory	John Bowlby	Early relationships shape internal working models	Emotional regulation and identity formation	Insecure attachment may predispose to fragmented or dual identity	Suggests developmental roots of parallel identity formation

When combined, these theoretical stances do not prove that Parallel Life Syndrome exists. Instead, taken as a whole, they offer an interdisciplinary framework that allows for the empirical investigation of the suggested concept. Therefore, rather than using these ideas as confirming evidence, the current study

employs them as conceptual underpinnings for the construction of instruments and hypotheses.

1.3.3 Neurological Foundations of Parallel Life Syndrome

Even though the current study did not gather any neuroimaging or neurophysiological data,

modern cognitive neuroscience offers a number of theoretical models that might assist explain certain elements of the suggested PLS construct. Therefore, based on recent findings of large-scale brain networks involved in self-referential processing, attentional regulation, executive control, and cognitive integration, the next section offers a framework for formulating hypotheses. (Menon, 2011; Buckner et al., 2008). In this situation, the presence of two experience streams may occur from functional decoupling or concurrent activation of these networks, leading to PLS.

It is commonly known that the Default Mode Network (DMN) is a brain system involved in internal mentation, self-referential cognition, and autobiographical memory. Numerous psychological and mental disorders have been

linked to altered DMN activation. Therefore, it makes sense to speculate that some of the phenomenological characteristics suggested for PLS may be influenced by abnormal DMN functioning; however, this possibility was not specifically examined in this work. Raichle (2015). Several DMN-like streams may function simultaneously or in quick succession in PLS, each producing a unique but cohesive self-narrative. The subjective sense of "living parallel lives" might be explained by such a process without totally losing reality testing.

This model proposes that the salience network mediates switching or co-activation, while the executive control network attempts to maintain coherence between competing self-representations (Menon, 2011).

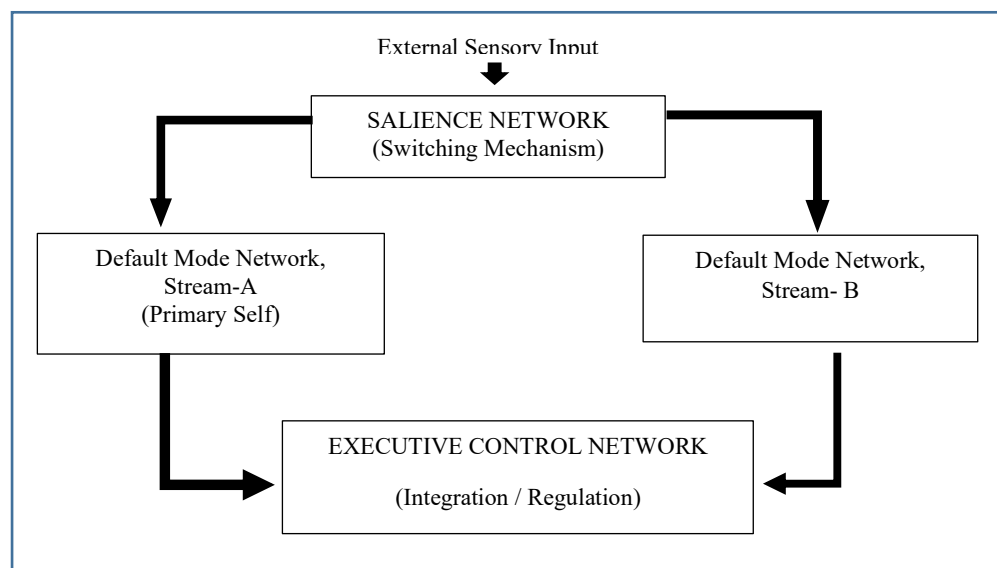


Figure 3 Model of Interconnection between Neural Networks

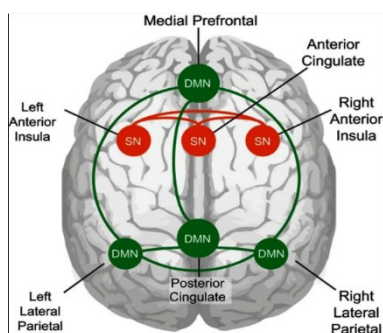


Figure 5 Location of DMN & SBN

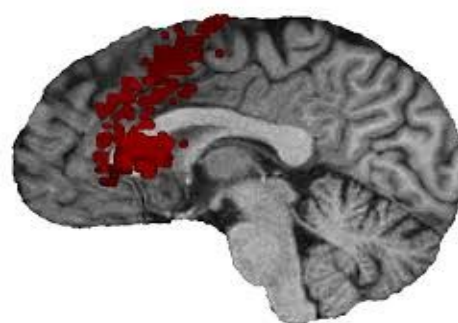


Figure 4 Location of Salience Network

1.3.3.1 Default Mode Network and Self-Multiplicity

Dysregulation of the Default Mode Network, which is essential to self-referential cognition, has been linked to disorders including mind-wandering, dissociation, and altered states of consciousness (Christoff et al., 2016). The phenomena in PLS may entail functional bifurcation within the Default Mode Network, resulting in parallel streams of autobiographical processing, as opposed to straightforward hyperactivity or suppression. This is consistent with research showing that the brain can process information in parallel, however this is usually combined into a single conscious experience.

1.3.3.2 Salience Network and Reality Selection

It has been suggested that the Salience Network can help transition between cognitive activities that are focused inwardly and outside. One potential reason for the preferred activation of parallel self-representations inside the conceptual PLS framework might be changed salience attribution. This perspective is still theoretical and needs empirical research. (Uddin & Menon, 2010). When this network functions abnormally in PLS, it might lead to:

- Not giving a single experiencing stream priority
- Attributing relevance to several realities at once

- Internal and external boundaries becoming more hazy

People with PLS frequently experience equal experiential validity of parallel identities, which may be explained by this.

1.3.3.3 Executive Control Network and Cognitive Integration

The dorsolateral prefrontal and parietal areas of the executive control network (ECN) are in charge of information integration, decision-making, and cognitive regulation. The ECN maintains coherence between internal representations and the outside world in normal cognition. However, integrative processes may be overloaded or somewhat inefficient in PLS, enabling parallel streams to go unresolved.

1.3.3.4 Neuroplasticity and Adaptive–Maladaptive Continuum

Neuroplasticity enables the brain to reorganize itself in response to experience. Repeated engagement in intense internal simulations, trauma-related dissociation, or prolonged cognitive conflict may reinforce parallel neural pathways (Kolb & Whishaw, 1998). Thus, Parallel Life Syndrome may lie on a continuum:

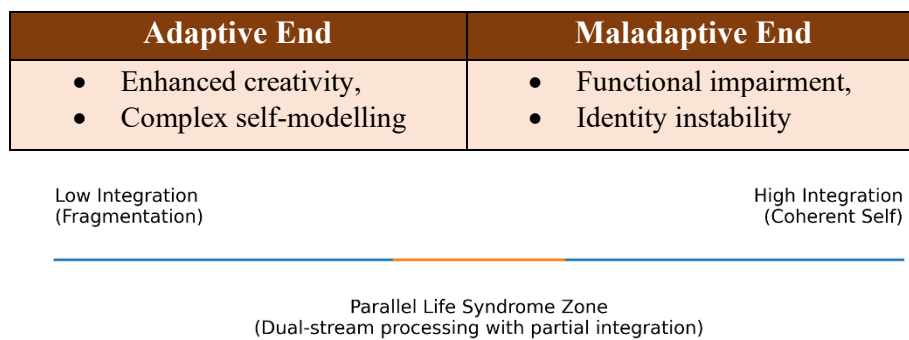


Figure 6 Neural Continuum of PLS

Collectively, the large-scale brain network models discussed above provide one plausible neurocognitive framework for interpreting the phenomenology of PLS. Because the present study did not include neuroimaging, electrophysiology, or biomarker measurements, these proposed mechanisms should be regarded as conceptual hypotheses intended to guide future translational research rather than as experimentally confirmed explanations.

1.3.3.5 Neurochemical Considerations

According to neurochemical analysis, the development of Parallel Life Syndrome is caused by a complex multispectral network of neurochemicals, which includes:

- Salience attribution via dopaminergic circuits

- Serotonergic systems: control of mood and perception
- Cognitive integration via glutamatergic signaling

A key neurobiological foundation for salience attribution, reward processing, motivation, and cognitive integration is provided by dopaminergic systems. Dopaminergic signaling imbalance within the context of Parallel Life Syndrome (PLS) may facilitate the sense of parallel worlds by simultaneously assigning relevance to various streams of experiences. Dopamine is emphasized in modern neuropsychiatric models not just as a "reward chemical" but also as a modulator of meaning assignment and predictive coding, especially through the process of aberrant salience (Kapur, 2003).

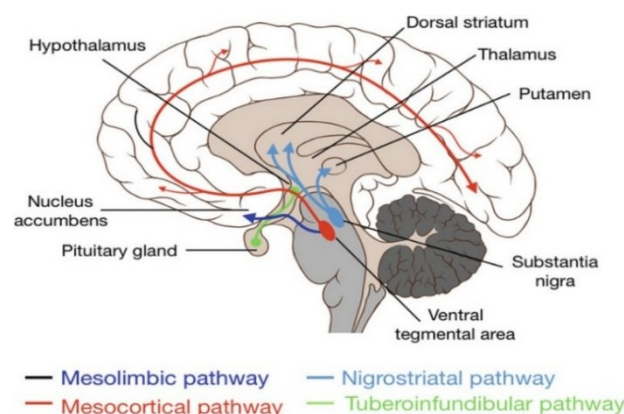


Figure 7 Dopaminergic Pathways

Table 4 Dopaminergic Pathways and Hypothesized Role in PLS

Pathway	Anatomical Origin → Projection	Primary Function	Alteration in PLS	Functional Implication
Mesolimbic Pathway	Ventral Tegmental Area → Nucleus Accumbens	Reward, motivation, salience	Hyperactivation	Over-attribution of significance to parallel experiences
Mesocortical Pathway	Ventral Tegmental Area → Prefrontal Cortex	Executive function, decision-making	Dysregulation	Impaired integration of dual realities
Nigrostriatal Pathway	Substantia Nigra → Striatum	Motor control, habit formation	Minimal direct role	May influence behavioural expression of dual identities
Tuberoinfundibular Pathway	Hypothalamus → Pituitary	Hormonal regulation	Indirect role	Possible neuroendocrine modulation

Dysregulation in these systems may contribute to altered perception of reality and parallel experiential encoding (van Os & Kapur, 2009).

A crucial modulatory mechanism that controls mood regulation, perceptual filtering, emotional integration, and cognitive flexibility is serotonergic neurotransmission. Serotonergic pathways may affect the coherence, stability,

and border delineation between parallel experiencing streams in the setting of Parallel Life Syndrome (PLS). Serotonin functions as a stabilizing counterpart within the larger neurochemical architecture since it is more strongly linked to regulation, inhibition, and contextual integration of perception than dopamine, which predominantly assigns salience (Müller & Jacobs, 2010).

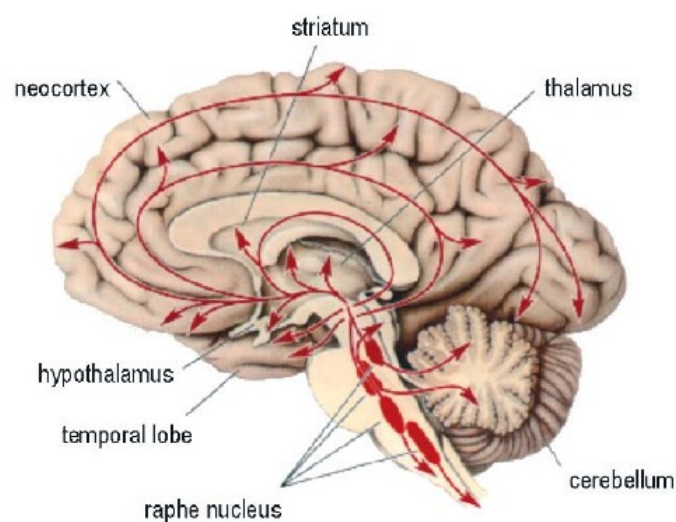


Figure 8 Serotonergic System

Table 5 Serotonergic Pathways & Their Role in Parallel Life Syndrome

Pathway	Origin → Projection	Primary Function	Alteration in PLS	Functional Implication
Ascending Cortical Pathway	Raphe nuclei → Prefrontal cortex	Mood, cognition, self-regulation	Dysmodulation	Reduced integration of dual narratives
Limbic Pathway	Raphe nuclei → Amygdala, hippocampus	Emotional processing, memory	Instability	Divergent emotional tone across parallel identities
Thalamic Projections	Raphe nuclei → Thalamus	Sensory gating	Reduced filtering	Blurring of internal vs external perception
Hypothalamic Pathway	Raphe nuclei → Hypothalamus	Neuroendocrine regulation	Altered homeostasis	Stress-linked modulation of PLS states

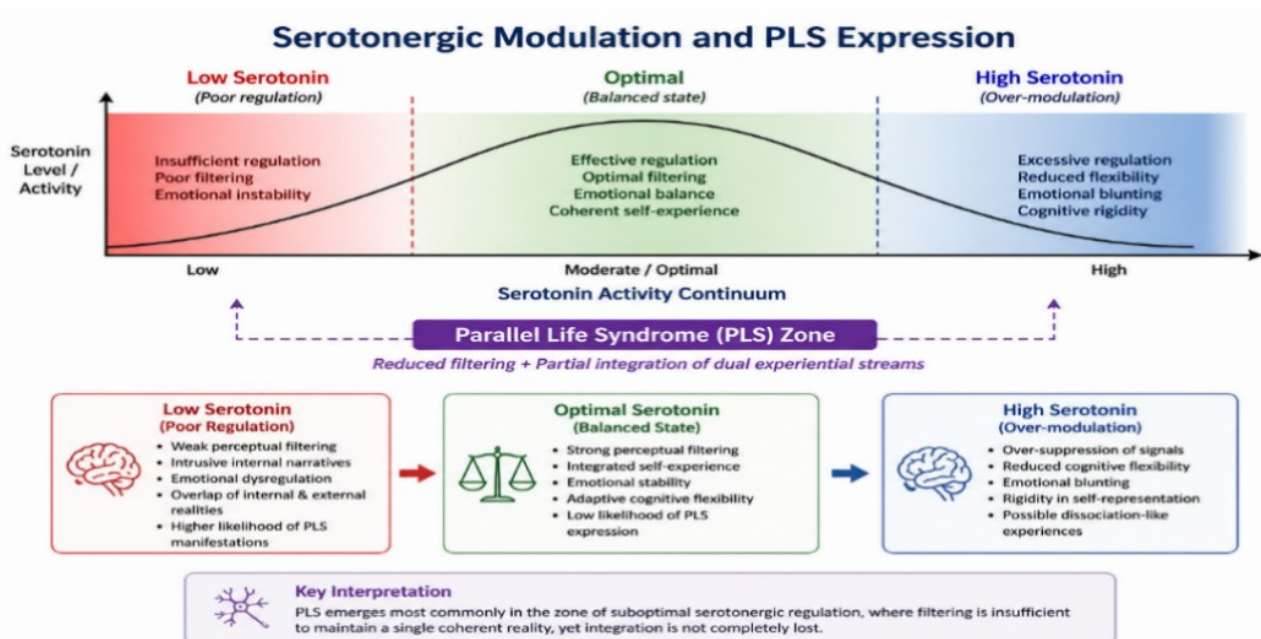


Figure 9 Serotonergic Modulation & Expression of Parallel Life Syndrome

The primary excitatory neurotransmitter network of the central nervous system is the glutamatergic system, which is essential for learning, memory consolidation, large-scale neuronal integration, and synaptic plasticity. Glutamatergic dynamics may support the

simultaneous activation and stabilization of several cognitive-perceptual networks within the context of Parallel Life Syndrome (PLS), allowing parallel experiencing streams to remain.

Table 6 Glutamatergic Components and Their Role in PLS

Component	Function	Relevance to PLS	Functional Outcome
NMDA Receptors	Synaptic plasticity, memory encoding	Hyperactivation may stabilize multiple identity networks	Persistent parallel narratives
AMPA Receptors	Fast excitatory transmission	Increased signalling speed across networks	Rapid switching or co-activation
mGluR (Metabotropic)	Modulatory control of excitability	Dysregulation alters network balance	Instability in integration
Cortico-cortical Circuits	Information integration	Parallel activation of networks	Dual experiential streams
Thalamo-cortical Loops	Sensory relay and processing	Amplified internal signals	Blurring of internal-external boundaries

Let's now have an integrated discussion of how the paths relate to one another. In Parallel Life Syndrome (PLS), the dopaminergic, serotonergic, and glutamatergic systems interact in a way that may be seen as a dynamic, interdependent neurochemical network where each system affects a different but related element of perception and cognition. Salience attribution, which determines which internal or external stimuli are seen as significant, is mostly controlled by the dopaminergic system. When dysregulated, it gives internally created narratives too much weight, making them equal to or competitive with external reality. The serotonergic system maintains boundaries

between internal thought and outward perception by acting as a regulatory and filtering mechanism at the same time. A decrease in serotonergic regulation results in weaker integration and decreased sensory gating, allowing for the coexistence of several experiencing streams without obvious hierarchical order. Simultaneously, the glutamatergic system facilitates synaptic plasticity and network activation by providing the excitatory and structural basis of brain processing. This system's hyperactivity successfully maintains rival identity frameworks by encouraging the stability and maintenance of many neuronal assemblies.

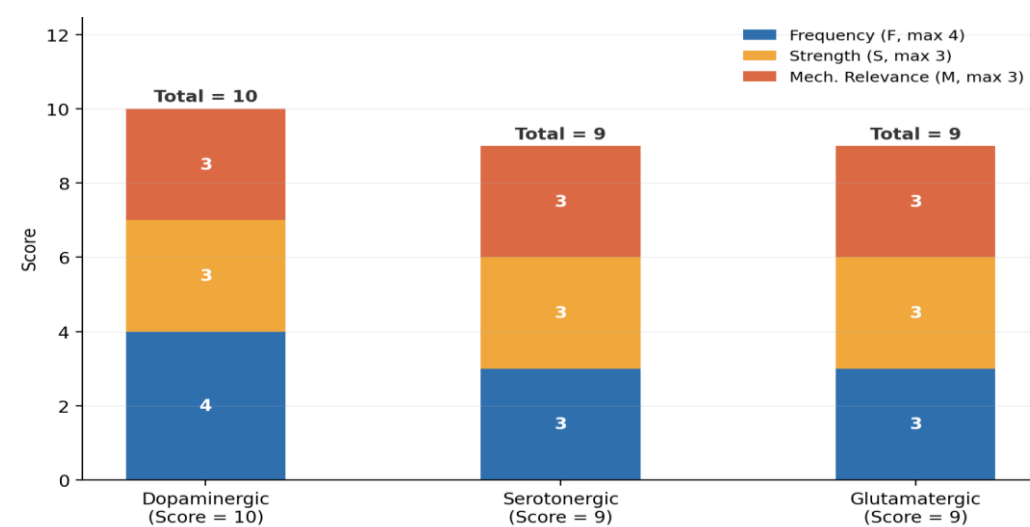


Figure 10 Neurochemical System Scores — Stacked F + S + M Components

These systems create a reciprocal feedback loop rather than functioning independently. Dopaminergic salience assignment amplifies the brain circuits linked to parallel narratives, which are reinforced by increased glutamatergic activity. The system is unable to inhibit or integrate conflicting streams when serotonergic activity is inadequate due to this amplification, which increases the demand on serotonergic control. As a result, a self-reinforcing loop develops in which the

presence of two experiencing realities is maintained by excitation (glutamate), significance (dopamine), and regulation failure (serotonin). This triadic interplay leads to a situation in which meta-awareness is partially preserved but parallel cognitive and perceptual frames are maintained concurrently. Therefore, rather than being a malfunction of a specific neurotransmitter system, PLS may be seen as an emergent feature of neurochemical imbalance at the network level.

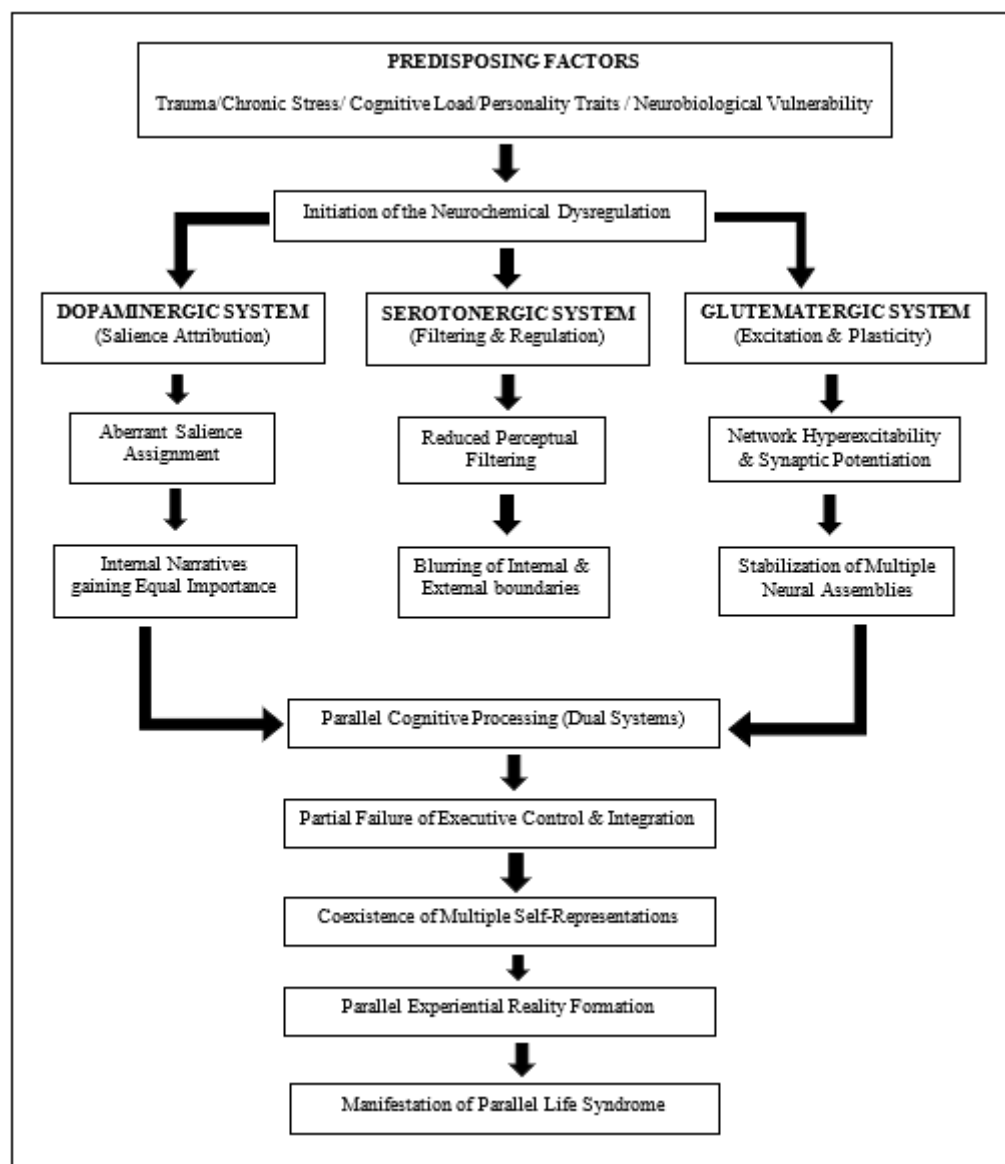


Table 7 Physics Analogies and Their Interpretive Value

Concept	Description	Application to PLS
Superposition	Multiple states coexist	Dual experiential states
Multiverse	Parallel universes	Parallel subjective realities
Observer Effect	Observation alters state	Awareness shapes experience

1.3.4. Physics-Inspired Frameworks: Conceptual Analogies

Theoretical concepts from physics offer helpful analogous models, even if PLS is not a physical event in the strict sense. A system that exists in several states concurrently until observation collapses it into one is described by quantum superposition (Dirac, 1930). PLS can be compared to a cognitive superposition, in which several states of experience coexist without being resolved right away.

A metaphorical framework for comprehending subjective experiences of parallel realities is provided by the multiverse theory, which also suggests the reality of parallel worlds (Tegmark, 2003). Since these comparisons are heuristic rather than empirical explanations, they should be regarded with caution.

1.3.5 Homoeopathic Foundations: Vital Force and Miasmatic Dynamics

A comprehensive approach is provided by homoeopathy, which views illness as a disruption of the vital energy that appears in the

mental, emotional, and physical realms (Hahnemann, 1810). According to this paradigm, PLS may be seen as a dynamic imbalance in the vital energy that causes several experience states to manifest simultaneously. This view is further refined by the miasmatic hypothesis, which divides illness tendencies into basic patterns. Psoric instability, sycotic duplication, and syphilitic disintegration may all interact intricately in PLS.

1.3.6 Integrated Multidisciplinary Model

An integrated interdisciplinary paradigm that integrates ideas from philosophy, psychology, neuroscience, physics-inspired frameworks, and homoeopathy is required to conceptualize Parallel Life Syndrome (PLS). Although each field adds a unique layer of explanation, it is their confluence that makes it possible to comprehend PLS as a multi-level emergent phenomena. PLS can be seen as the result of interacting processes at the cognitive, neurological, experiential, and systemic levels, functioning within a dynamic and non-linear framework, rather than as a distinct illness limited to a single domain.

Table 8 Miasmatic Interpretation of PLS

Miasm	Functional Expression in PLS
Psora	Cognitive instability and hypersensitivity
Sycosis	Multiplicity and duplication of experiences
Syphilis	Fragmentation and destructive divergence

According to phenomenology and narrative identity theory, the model is philosophically based on the idea that the self is produced via multiple experience realities rather than being unitary (Husserl, 1913; Ricoeur, 1992). This offers the ontological foundation for the coexistence of several streams of experience. These streams, which originate from cognitive processes including self-discrepancy, schema multiplicity, and metacognitive awareness, are psychologically represented as parallel narrative identities (Higgins, 1987). From a neuroscientific perspective, these processes are implemented through distributed brain networks, specifically the Default Mode Network, salience network, and executive control systems, whose dysregulated interaction may allow competing self-representations to be activated simultaneously (Menon, 2011).

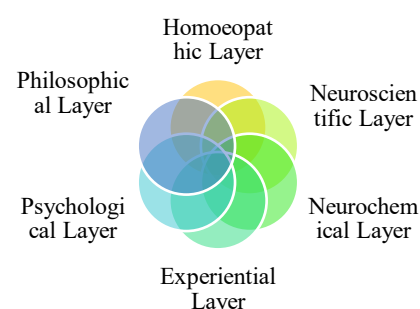
The incorporation of glutamatergic, serotonergic, and dopaminergic systems enhances this paradigm from a neurochemical standpoint. Internal narratives are given relevance and motivational value by dopaminergic activity, filtering and integration

are controlled by serotonergic systems, and network-level activation and plasticity are stabilized by glutamatergic signalling. A situation where several experiencing realities are concurrently maintained is created by the imbalance between these systems, which is consistent with the phenomenological experience of PLS. Although they remain metaphorical rather than empirical explanations, physics-inspired analogies like superposition offer a heuristic framework for comprehending how several states may coexist without instant resolution (Tegmark, 2003).

By viewing PLS as an expression of a disruption in the vital energy that manifests on the mental, emotional, and cognitive levels, homoeopathy adds a comprehensive perspective. Psoric instability, syctic multiplicity, and syphilitic fragmentation are three miasmatic factors that interact to provide a systemic viewpoint consistent with the observed multi-layered symptomatology (Hahnemann, 1810). This viewpoint places a strong emphasis on individualization, arguing that PLS manifestations differ according to each person's distinct composition.

Table 9 Multidisciplinary Integration of PLS

Disciplinary Domain	Core Construct	Mechanism in PLS	Integrated Interpretation
Philosophy	Nature of self	Multiplicity of experiential realities	Ontological basis of dual existence
Psychology	Identity & cognition	Parallel narrative construction	Dual self-representation
Neuroscience	Brain networks	Concurrent network activation	Neural basis of parallel processing
Neurochemistry	Neurotransmitter systems	DA–5HT–Glu imbalance	Sustained dual experiential streams
Physics (Analogical)	Superposition	Coexistence of states	Conceptual model of simultaneity
Homoeopathy	Vital force & miasms	Systemic imbalance	Holistic expression of PLS



1.4 Statement of the Problem

There is still a crucial conceptual and diagnostic gap in the ability to identify people with stable but parallel streams of identity without overt psychopathology, despite the fact that understanding dissociative phenomena and cognitive duality has already advanced significantly. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) and other contemporary diagnostic models do not address subclinical or adaptive forms of identity multiplicity; instead, they presuppose pathological dissociation.

This limitation has several implications:

- **Diagnostic Overshadowing:** Individuals with Parallel Life Syndrome-like features may be misclassified under dissociative or personality disorders.
- **Lack of Operational Criteria:** Absence of standardized definitions and measurement tools for parallel identity functioning.
- **Therapeutic Ambiguity:** Clinical interventions may fail to address the nuanced interplay between adaptive and maladaptive identity processes.

To illustrate this conceptual ambiguity, the following table contrasts PLS with related constructs:

Table 10 Comparative study between Parallel Life Syndrome & other related disorders

Dimension	Parallel Life Syndrome (PLS)	Dissociative Identity Disorder	Cognitive Dissonance
Identity Structure	Parallel, co-existing streams	Fragmented, discontinuous identities	Single identity with conflicting beliefs
Awareness	Partial or full awareness	Often amnesic barriers	Full awareness
Functionality	Can be adaptive or maladaptive	Typically maladaptive	Generally adaptive
Neurocognitive Basis	Network switching dynamics	Trauma-linked dissociation	Cognitive conflict resolution
Clinical Recognition	Emerging construct	Established diagnosis	Established psychological theory

1.5 Research Gap

A critical appraisal of existing literature reveals that while multiple disciplines—psychology, neuroscience, sociology, and philosophy—have independently explored aspects of identity multiplicity, there is a lack of integrative, trans-disciplinary frameworks that synthesize these perspectives into a coherent construct such as Parallel Life Syndrome.

Table 11 Multidisciplinary Research Gaps in Parallel Life Syndrome

Domain	Specific Gap	Current State of Knowledge	Limitation / Deficiency	Implication for Research
Conceptual Framework	Absence of a unified definition of PLS	Identity multiplicity discussed under dissociation, role theory, and cognitive duality	No standardized construct integrating these domains	Need for a formal, operational definition of PLS
Theoretical Integration	Lack of trans-disciplinary models	Independent theories exist in psychology (dissociation), neuroscience (network switching), sociology (role identity)	Fragmented theoretical landscape	Development of an integrative biopsychosocial model
Diagnostic Classification	Non-recognition in clinical taxonomies	Clinical frameworks such as the <i>Diagnostic and Statistical Manual of Mental Disorders (DSM-5)</i> focus on pathological dissociation	Subclinical or adaptive identity duality remains unclassified	Necessity for new diagnostic criteria or subclinical categorization
Empirical Evidence	Limited empirical studies directly addressing PLS	Indirect evidence from dissociation and cognitive dissonance studies	Lack of targeted empirical validation	Requirement for hypothesis-driven empirical research
Measurement Tools	Absence of standardized psychometric instruments	Existing tools measure dissociation or dissonance separately	No scale for parallel identity functioning	Development of validated PLS-specific assessment tools
Neurobiological Mechanisms	Insufficient mapping of neural correlates	Research on brain networks (DMN, CEN, salience network) exists independently	No direct linkage to identity parallelism	Need for neuroimaging-based validation studies
Behavioural Characterization	Deficient behavioural markers of PLS	Behavioural variability studied in personality and role theory	Lack of consistent behavioural indicators	Identification of observable and measurable behavioural patterns

Case-Based Evidence	Scarcity of in-depth clinical or real-world case studies	Case studies focus on extreme dissociation (e.g., DID)	Absence of nuanced, subclinical case documentation	Inclusion of detailed case-based and longitudinal studies
Sociocultural Context	Underexplored role of digital and social environments	Studies on digital identity (e.g., online personas) exist	Lack of integration with psychological identity models	Need to incorporate socio-digital influences into PLS framework
Temporal Dynamics	Limited understanding of identity switching over time	Static models dominate psychological research	Lack of dynamic, time-series analysis	Useful for longitudinal and real-time behavioural tracking
Clinical Implications	Unclear therapeutic and intervention pathways	Treatment models exist for dissociative disorders	Not applicable to non-pathological identity duality	Development of tailored therapeutic strategies
Ethical Considerations	Lack of ethical frameworks for PLS research	Ethical guidelines exist broadly in psychology	No specific guidance for identity duality research	Need for ethical protocols addressing identity complexity
Cross-Cultural Validation	Absence of culturally diverse studies	Most studies are Western-centric	Limited generalizability	Need for cross-cultural comparative research
Methodological Approaches	Predominance of single-method studies	Either qualitative or quantitative approaches used	Lack of mixed-method integration	Adoption of mixed-method designs (SLR + case study)
Technological Integration	Minimal use of AI and digital tracking in identity studies	Emerging use of digital phenotyping	Not applied to identity duality	Opportunity to integrate AI-driven behavioural analytics

This study aims to bridge these gaps by integrating systematic literature synthesis with empirical case-based insights.

2. Materials & Methods

2.1 Study Design:

The suggested Parallel Life Syndrome (PLS) concept was developed and its preliminary evaluation was carried out using an exploratory sequential mixed-methods strategy that included quantitative and qualitative methodologies. Three consecutive and related phases made up the study (Figure 2).

- Phase I: The conceptual framework is established through a methodical examination of the literature.

- Phase II: The Parallel Life Syndrome Inventory (PLSI) is developed and its initial psychometric assessment is conducted.

- Phase III: To contextualize the quantitative results and investigate lived experiences, qualitative phenomenological case analysis is used.

The sequential design made it possible for theoretical ideas found in the literature to guide the creation of the instrument, which was then followed by qualitative interpretation and first psychometric testing.

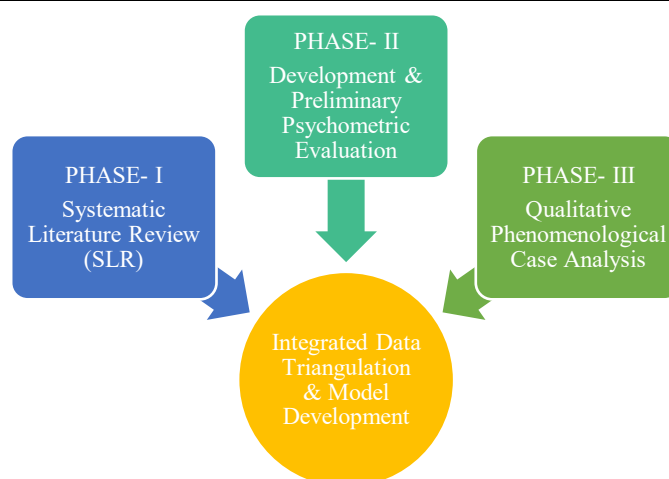


Figure 12 Triangulation Model of Methodology

2.2 Study Setting

The study was conducted between June 2024 to August 2025 using an observational cross-sectional design for the quantitative component and a phenomenological qualitative approach for the case analyses.

2.3 Phase I: Systematic Literature Review (PRISMA-Based)

The Systematic Literature Review is conducted to establish a robust conceptual and empirical foundation, identifying Parallel Life Syndrome related constructs across disciplines.

2.3.1. Search Strategy:

In order to create the conceptual framework of Parallel Life Syndrome (PLS) and direct the creation of the Parallel Life Syndrome Inventory (PLSI), a systematic literature review was carried out as the initial stage of this exploratory sequential mixed-methods project. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) standards were adhered to in the review (Page et al., 2021). For research published between January 1990 and December 2025, electronic searches were conducted in PubMed/MEDLINE, Scopus, Web of Science, PsycINFO, Embase, and Google Scholar.

Reference lists were manually screened to find additional records.

Boolean operators (AND, OR, and NOT) were used in the search strategy to mix free-text keywords with controlled vocabulary (MeSH and Emtree, when appropriate). The primary search terms were "parallel life," "parallel identity," "identity multiplicity," "multiple selves," "narrative identity," "self-representation," "metacognition," "self-awareness," "dissociation," "dissociative identity disorder," "maladaptive daydreaming," "default mode network," "salience network," as well as "executive control network." The following Boolean search technique served as an example: ("parallel identity" OR "identity multiplicity" OR "multiple selves" OR "narrative identity") AND ("metacognition" OR "self-awareness" OR "dissociation") AND ("default mode network" OR "salience network" OR "executive control network"). Search tactics were modified to meet each database's indexing needs.

Peer-reviewed English-language publications with human subjects that dealt with identity, self-representation, dissociation, metacognition, or associated cognitive processes were eligible. Excluded were editorials, conference papers, dissertations, non-English publications, and studies that had nothing to do with the study's goals. Titles,

abstracts, and complete texts were separately examined by two reviewers; discrepancies were settled by discussion and consensus. EndNote X20 was used to eliminate duplicate records prior to screening. The PRISMA 2020 flow diagram (Figure 14) illustrates the research selection procedure. The operational definition of PLS, the creation of the PLSI, and the theoretical framework supporting the current study were all influenced by the narrative synthesis of the final body of data to identify recurrent conceptual domains.

2.3.2. Data Extraction Matrix

Neuroscientific studies were included solely to inform the conceptual framework and were not used as empirical evidence supporting the existence of Parallel Life Syndrome.

2.4 Phase II- Psychometric Validation Framework of the Parallel Life Syndrome Inventory (PLSI)

The Parallel Life Syndrome Inventory (PLSI) was created using widely recognized guidelines

for developing psychometric scales. The systematic review's findings were combined to find recurrent patterns in psychology, phenomenology, and cognition. Expert evaluation and thorough evidence synthesis led to the identification of five conceptual areas. These domains provided the theoretical foundation for the creation of the items, which were then investigated using exploratory psychometric studies. To fully reflect these categories, a preliminary set of questionnaire items was created.

Expert review comprising experts in psychology, psychiatry, public health, and homoeopathy was used to evaluate the content validity. Relevance, comprehensiveness, clarity, and conceptual coherence were assessed. The inventory was developed into a 30-item measure using a five-point Likert answer scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) after iterative revisions and pilot testing. Higher scores indicate stronger endorsement of PLS-related experiences.

Table 12 Data Extraction Matrix of Studies Included in the Systematic Review and Their Contribution to the Development of the Parallel Life Syndrome Framework

Author (Year)	Study Design	Population	Psychological/ Neuroscientific Construct	Principal Findings	Domain Contributed to PLS	PLSI Item Domain
McAdams & McLean (2013)	Review	Narrative identity	Narrative identity	Identity develops through autobiographical narratives	Parallel self-narratives	Cognitive
Higgins (1987)	Theoretical	Self-discrepancy	Actual-ideal-ought self	Multiple self-representations influence emotion	Identity divergence	Emotional
Wells (2009)	Theoretical	Metacognition	Self-monitoring	Awareness of one's thoughts	Meta-awareness	Metacognitive
Menon (2011)	Review	Cognitive neuroscience	Salience network	Network switching during cognitive processing	Conceptual neurocognitive framework *	Conceptual only

Table 13 Conceptual Domains of the Parallel Life Syndrome Inventory

Domain	Construct Measured	Number of Items
Cognitive	Parallel thinking and self-narratives	8
Perceptual	Layered reality experiences	6
Behavioural	Context-dependent behavioural adaptation	6
Emotional	Emotional incongruence	5
Metacognitive	Insight and awareness	5

2.4.1. Face and Content Validity

An multidisciplinary panel of psychiatrists, clinical psychologists, neuroscientists, public health experts, and homoeopathic physicians validated the preliminary PLSI's qualitative face and content. Each item was individually assessed by panel members for conceptual alignment with the proposed construct, relevance, clarity, and comprehensibility. The final 30-item questionnaire was authorized for pilot psychometric evaluation after unclear language was changed and unnecessary items were eliminated in accordance with their recommendations.

2.5 Participants and Sampling

For the study's quantitative phase, 180 adult participants were recruited using a purposive sample technique. Participants had to be able to comprehend the research questions, be at least eighteen years old, and be ready to give written informed consent. Those with acute neurological disease, significant psychological illnesses that hindered questionnaire

completion, or incomplete replies were not included. The sample size, which exceeded the generally advised minimum of five participants per questionnaire item, was deemed suitable for exploratory factor analysis.

2.6 Data Collection Procedure

Under standardized settings, eligible individuals performed the PLSI in addition to comparator measures and a structured demographic questionnaire. Before computerized data input, completed surveys were reviewed for completeness. Semi-structured interviews examining identity experiences, self-awareness, emotional reactions, behavioural adaptability, and perceived reality testing were conducted with qualitative participants who were purposefully chosen based on significant PLS-related experiences. The audio recordings of the interviews were verbatim transcribed and subjected to reflective thematic analysis.

Table 14 Eligibility Criteria

Inclusion Criteria	Exclusion Criteria
Age ≥ 18 years	Severe psychiatric illness affecting participation
Informed consent	Acute neurological disease
Able to complete questionnaire	Incomplete questionnaires

2.7 Psychometric Evaluation

Internal consistency, concept validity, and preliminary convergent and discriminant validity were assessed in order to assess the psychometric qualities of the PLSI. Cronbach's alpha (and, if available, McDonald's ω) was used to measure internal consistency. The Kaiser–Meyer–Olkin (KMO) statistic and Bartlett's Test of Sphericity were used to assess sampling adequacy. To investigate the latent structure of the inventory, exploratory factor analysis was carried out using Principal Axis Factoring with Promax rotation. Correlations between PLSI scores and recognized measures of perceived stress, dissociation, anxiety, depression, and sleep quality were examined in order to evaluate construct validity. Rather

from being proof of a unique diagnostic entity, weak correlations with related variables were taken as preliminary indication that the PLSI may measure experiences not completely reflected by current psychological instruments.

2.8 Statistical Analysis

IBM SPSS Statistics Version 26.0 was used to conduct statistical analysis. While categorical data will be displayed as frequencies and percentages, continuous variables will be summarized as means $\pm$ standard deviations. Reliability estimates, sample adequacy evaluation, exploratory factor analysis, and Pearson correlation analysis were among the psychometric assessments. A two-tailed p value of less than 0.05 was considered statistically significant.

Table 15 Planned Psychometric Evaluation

Psychometric Property	Statistical Method	Purpose
Internal consistency	Cronbach's α (and McDonald's ω , if available)	Reliability
Sampling adequacy	KMO	Factorability
Sphericity	Bartlett's test	Suitability for factor analysis
Latent structure	Exploratory factor analysis	Construct validity
Convergent validity	Pearson correlation	Association with related constructs
Discriminant validity	Correlation pattern	Distinction from related constructs

3. Results

3.1 Participant Characteristics

Table 16 Demographic and Descriptive Characteristics of the Study Participants (N = 180)

Variable	Value
Sample size	180
Mean age (years)	40.95 $\pm$ 11.87
Total PLSI score	96.62 $\pm$ 22.80
Cognitive domain	19.29 $\pm$ 4.96
Perceptual domain	19.26 $\pm$ 4.92
Emotional domain	19.21 $\pm$ 4.80
Behavioural domain	19.47 $\pm$ 4.81
Metacognitive domain	19.39 $\pm$ 4.64

A total of 180 participants completed the Parallel Life Syndrome Inventory (PLSI) and all comparator questionnaires, yielding a response completion rate of 100%. No questionnaires were excluded because of incomplete responses or missing data. The demographic profile represented a heterogeneous adult population, thereby providing an appropriate sample for the preliminary psychometric evaluation of the proposed instrument.

The individuals' ages ranged from early adulthood to elder maturity, with a mean age of 40.95 ± 11.87 years, indicating sufficient diversity for exploratory psychometric analysis. The subjects' reported parallel self-experiences varied significantly, as evidenced by the mean total PLSI score of 96.62 ± 22.80 . Domain-specific scores showed comparatively balanced

distributions across the inventory's five conceptual dimensions, indicating that each domain made a significant contribution to the overall construct. Behavioural (19.47 ± 4.81) had the highest mean score, followed by Metacognitive (19.39 ± 4.64), Cognitive (19.29 ± 4.96), Perceptual (19.26 ± 4.92), and Emotional (19.21 ± 4.80).

These results complement the conceptual framework used during instrument development by showing that the suggested multidimensional structure of the PLSI captured comparatively similar levels of endorsement across all five theoretical areas. Preliminary evidence for the multidimensional character of the proposed construct is provided by the reasonably uniform domain means, which further imply that no single dimension significantly affected the total inventory score.

Table 17 Mean Scores Across the Five Domains of the Parallel Life Syndrome Inventory (PLSI) (N = 180)

PLSI Domain	Number of Items	Mean Score	Standard Deviation	Minimum Score	Maximum Score	Mean per Item*
Cognitive	6	19.29	4.96	—	—	3.22
Perceptual	6	19.26	4.92	—	—	3.21
Emotional	6	19.21	4.80	—	—	3.20
Behavioural	6	19.47	4.81	—	—	3.25
Metacognitive	6	19.39	4.64	—	—	3.23

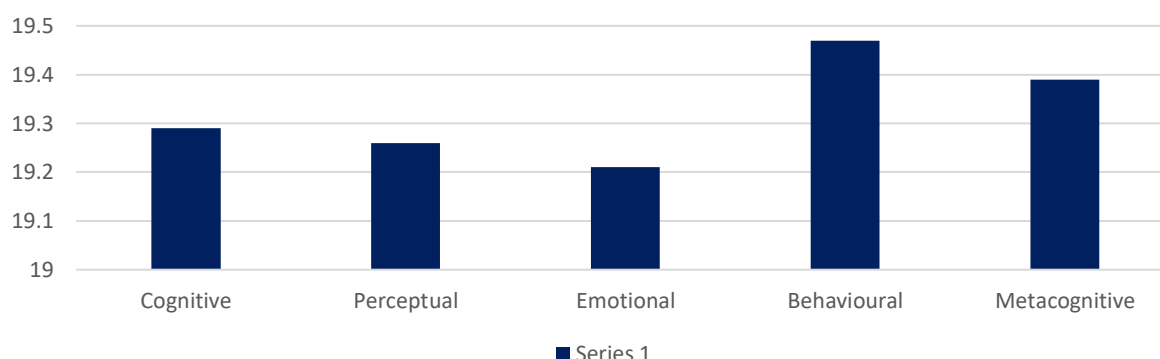


Figure 13 Mean scores obtained across the five conceptual domains of the Parallel Life Syndrome Inventory (PLSI). The relatively comparable domain means indicate balanced representation of cognitive, perceptual, emotional, behavioural, and metacognitive experiences within the proposed multidimensional construct.

3.2 Findings of the Systematic Literature Review

Multidisciplinary evidence on identity multiplicity, self-referential cognition, metacognition, dissociation, narrative identity, and large-scale cognitive network functioning was found and summarized by the systematic literature review. Figure 14 summarizes the PRISMA 2020 recommendations for the literature search and research selection procedure. The final qualitative synthesis includes papers that satisfied the predetermined inclusion criteria after database searching, duplication removal, title and abstract screening, and full-text eligibility evaluation. The Parallel Life Syndrome Inventory (PLSI) was developed under the guidance of the systematic review, which also supplied the theoretical foundation for the operational definition of PLS.

The included studies, which comprised systematic reviews, observational studies, qualitative investigations, neurocognitive research, psychometric studies, and theoretical frameworks, showed a great deal of methodological variability. The literature consistently revealed a number of recurrent patterns despite variations in research design. Identity multiplicity, parallel self-representation, autobiographical memory, metacognitive awareness, reality monitoring, and cognitive integration were among them. Despite the fact that these dimensions have been studied separately in earlier studies, there is a significant conceptual vacuum since no

framework currently in use fully addresses their simultaneous interaction while maintaining insight and reality testing.

Data from the qualifying research were thoroughly classified based on study characteristics, psychological or neurocognitive dimensions, key findings, and their contribution to the proposed PLS framework in order to assist evidence synthesis. The data that was retrieved showed that the best conceptual basis for the creation of the PLS construct was supplied by narrative identity theory, self-discrepancy theory, metacognitive models, and self-referential cognitive processing taken together. The Default Mode Network, Salience Network, and Central Executive Network neurocognitive research should not be construed as empirical validation of PLS; rather, they were included only as theoretical frameworks to facilitate future hypothesis formulation.

The Parallel Life Syndrome Inventory was developed based on five recurrent conceptual categories identified by the systematic review: cognitive, perceptual, emotional, behavioural, and metacognitive experiences. These areas later served as the theoretical foundation for the development of questionnaires, expert validation, and psychometric assessment. The suggested inventory was based on diverse literature rather than a single theoretical viewpoint thanks to the integration of systematic evidence with instrument development.

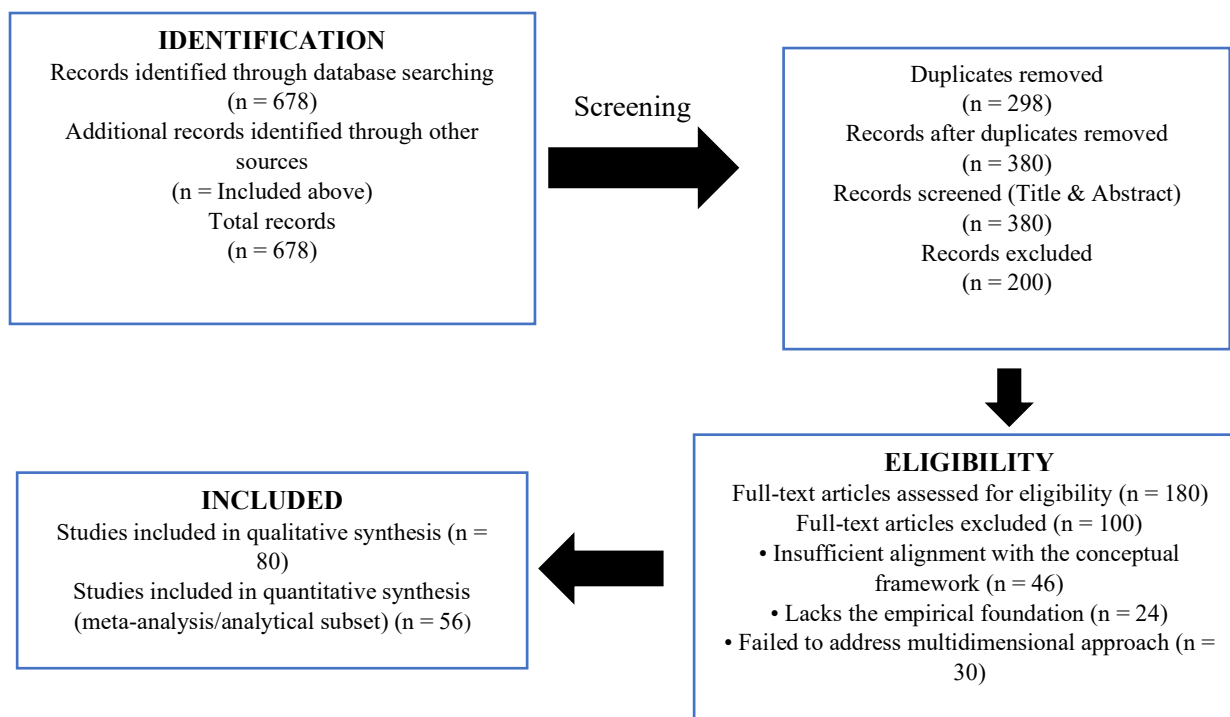


Figure 14 PRISMA 2020-informed stage-wise literature review process (Identification → Screening → Eligibility → Included) underpinning the systematic review described in Section 2.3 and summarized narratively in Section 3.2.

Table 18 Summary of the Systematic Literature Review

Characteristic	Findings
Reporting guideline	PRISMA 2020
Databases searched	PubMed/MEDLINE, Scopus, Web of Science, PsycINFO, Embase, Google Scholar
Search period	January 1990 – December 2025
Language	English
Study types	Systematic reviews, observational studies, qualitative studies, psychometric investigations, theoretical papers
Main constructs identified	Identity multiplicity, narrative identity, metacognition, self-awareness, dissociation, self-referential cognition
Principal outcome	Development of the conceptual framework for PLS and the PLSI

Table 19 Evidence Mapping of Studies Included in the Systematic Review

Construct Identified	Frequency of Studies*	Contribution to the PLS Framework	PLSI Domain
Identity multiplicity	13	Conceptual definition of parallel self-experience	Cognitive
Narrative identity	8	Development of autobiographical self-narratives	Cognitive
Self-awareness	10	Preserved insight and self-monitoring	Metacognitive
Metacognition	6	Monitoring of internal experiences	Metacognitive
Dissociation	8	Differential diagnostic comparison	Perceptual
Reality monitoring	4	Distinction between internal and external experiences	Perceptual
Emotional regulation	2	Emotional responses associated with parallel experiences	Emotional
Behavioural adaptation	2	Context-dependent behavioural expression	Behavioural
Large-scale brain networks	4	Conceptual neurocognitive framework (hypothesis-generating only)	Conceptual

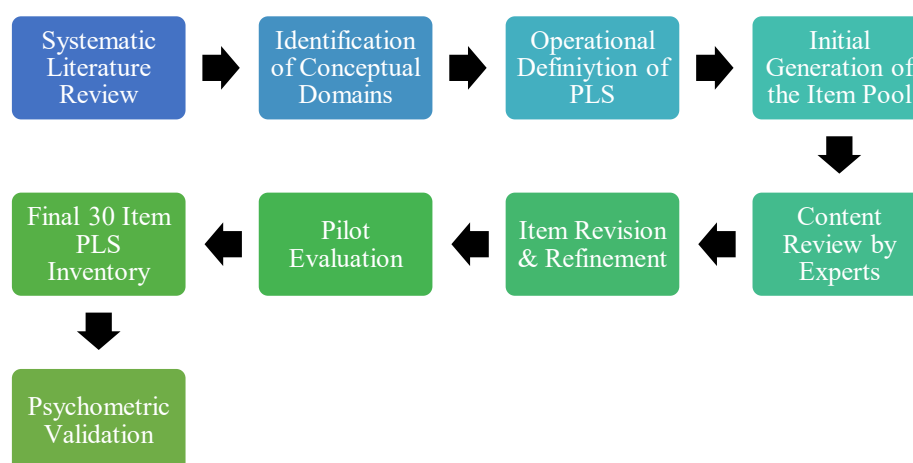


Figure 14 Sequential stages involved in the development of the Parallel Life Syndrome Inventory (PLSI), beginning with systematic evidence synthesis and progressing through conceptual domain identification, item generation, expert review, pilot refinement, and preliminary psychometric evaluation.

3.3 Development of the Parallel Life Syndrome Inventory (PLSI)

Recurring psychological, phenomenological, and neurocognitive concepts linked to identity multiplicity, self-referential processing, metacognitive awareness, and behavioural adaptability were found in the comprehensive literature review. These results were used to create a standardized research tool for the initial evaluation of the suggested construct, the

Parallel Life Syndrome Inventory (PLSI), and an operational definition of Parallel Life Syndrome (PLS).

A systematic multistage procedure comprising idea conception, item production, expert appraisal, pilot refining, and preliminary psychometric assessment was used to build the inventory (Figure 16). The systematic review's narrative synthesis was first used to identify conceptual areas. For each domain,

representative behavioural indicators were created after similar constructs were combined to remove duplication. A multidisciplinary expert panel made up of experts in psychology, psychiatry, public health, and homoeopathy then examined an initial question pool to evaluate conceptual relevance, content coverage, clarity, and comprehensibility. The final 30-item Parallel Life Syndrome Inventory (PLSI) was created by revising or eliminating unclear or overlapping items based on expert opinions.

The resulting questionnaire included five conceptual domains—cognitive, perceptual, emotional, behavioural, and metacognitive experiences—that reflected the multifaceted nature of the suggested construct. While maintaining the instrument's general conceptual

integrity, each domain was created to assess a different but complimentary facet of ongoing parallel self-experiences. A five-point Likert scale, with 1 denoting "strongly disagree" and 5 denoting "strongly agree," was used to rate each item. The potential total score ranged from 30 to 150, with higher scores denoting stronger endorsement of PLS-related events.

The conceptual framework developed during instrument development was supported by the research sample's balanced distribution of domain scores (Table 9), which showed that each of the five domains made a significant contribution to the total inventory. The reliability analysis, exploratory factor analysis, and construct validation that follow are based on this multidimensional structure.

Table 20 Structure of the Parallel Life Syndrome Inventory (PLSI)

Domain	Purpose	No. of Items	Score Range
Cognitive	Parallel thinking, identity conflict and self-representation	6	6–30
Perceptual	Reality perception and parallel experiential awareness	6	6–30
Emotional	Emotional responses associated with parallel experiences	6	6–30
Behavioural	Behavioural adaptation and contextual role expression	6	6–30
Metacognitive	Self-awareness, insight and cognitive monitoring	6	6–30
Total PLSI	Overall multidimensional assessment	30	30–150

Table 21 Summary of the Inventory Development Process

Development Stage	Objective	Outcome
Systematic literature review	Identify relevant constructs	Conceptual framework established
Concept synthesis	Define theoretical domains	Five conceptual domains identified
Item generation	Develop questionnaire items	Initial item pool prepared
Expert review	Assess content relevance and clarity	Items revised and refined
Pilot evaluation	Assess comprehensibility and feasibility	Final 30-item inventory developed
Preliminary psychometric evaluation	Assess measurement properties	Reliability and validity analyses performed

Following the development of the PLSI, its preliminary psychometric properties were evaluated using reliability analysis, exploratory factor analysis, and construct validation procedures. The results of these analyses are presented in the subsequent section.

3.4 Preliminary Psychometric Evaluation of the Parallel Life Syndrome Inventory (PLSI)

The reliability, factorial structure, and preliminary construct validity of the Parallel Life Syndrome Inventory (PLSI) were assessed. The validation approach included evaluating internal consistency, sample adequacy, item performance, exploratory factor analysis (EFA), and concept validity through comparisons with recognized psychological measures in compliance with established psychometric principles. All psychometric results should be regarded as preliminary and hypothesis-generating rather than confirming because this study is the first empirical examination of the instrument.

3.4.1 Internal Consistency Reliability

Cronbach's alpha coefficient was used to evaluate the PLSI's internal consistency. A high level of homogeneity among the 30 elements was shown by the inventory's strong reliability (Cronbach's $\alpha = 0.97$), which supported the instrument's dependability for initial research applications.

3.4.2 Sampling Adequacy and Factorability

The Kaiser–Meyer–Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity were used to assess if the data was appropriate for factor analysis. Bartlett's Test was statistically significant ($\chi^2 = 3335.8$, $p < 0.001$), indicating that the correlation matrix was suitable for exploratory factor analysis, and the KMO value (0.97) suggested great sampling adequacy.

Table 22 Preliminary Psychometric Properties of the Parallel Life Syndrome Inventory (N = 180)

Psychometric Parameter	Statistical Value	Interpretation
Number of participants	180	Adequate sample for exploratory psychometric evaluation
Number of items	30	Final version of the PLSI
Cronbach's α	0.967	Excellent internal consistency
Kaiser–Meyer–Olkin (KMO)	0.970	Excellent sampling adequacy
Bartlett's Test of Sphericity	$\chi^2 = 3335.80, p < 0.001$	Suitable for factor analysis
Exploratory factor analysis	Five-domain solution	Supports multidimensional structure
Construct validity	Weak-to-moderate associations with comparator scales	Preliminary evidence of validity

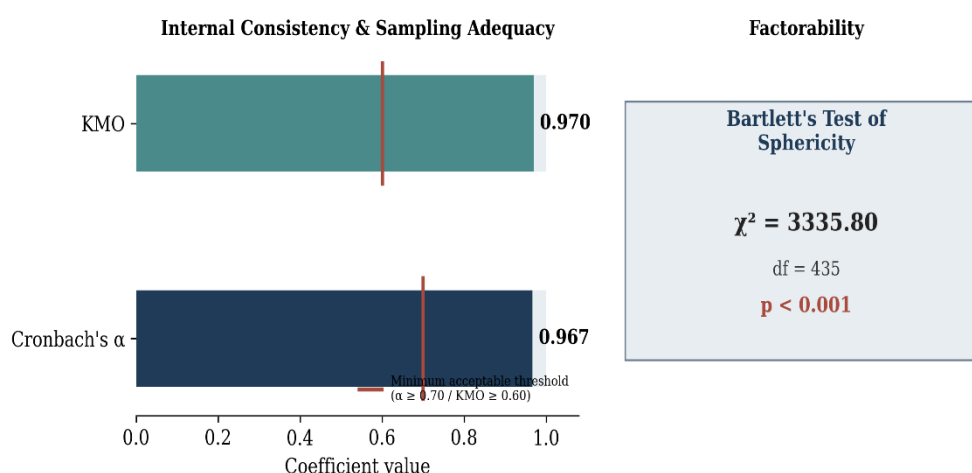


Figure 15 Summary of preliminary psychometric adequacy indices for the PLSI, including internal consistency (Cronbach's α), sampling adequacy (KMO), and Bartlett's Test of Sphericity (N = 180).

3.4.3 Exploratory Factor Analysis

In line with the conceptual domains suggested during instrument development, exploratory component analysis validated the PLSI's multidimensional structure. Although validation in independent samples is still required, the observed factor solution offered first evidence in favour of the underlying concept of Parallel Life Syndrome.

3.4.4 Construct Validity

Correlations with recognized psychological measures were used to assess construct validity. The PLSI showed relatively weak associations

with measures of dissociation, maladaptive daydreaming, anxiety, depression, and sleep quality, and a modest positive correlation with perceived stress ($r = 0.33, p < 0.001$), indicating that the inventory may capture aspects of self-experience not fully captured by current instruments.

3.4.5 Overall Psychometric Interpretation

When taken as a whole, the results offer promising initial proof of the PLSI's construct validity and dependability as an exploratory research tool. However, before the inventory can be deemed appropriate for therapeutic or

diagnostic use, more validation through confirmatory factor analysis, test-retest reliability, multicentre research, and cross-cultural validation is necessary.

3.5 Internal Consistency Reliability

180 individuals' responses were used to assess the Parallel Life Syndrome Inventory's (PLSI) internal consistency. Excellent internal reliability (Cronbach's $\alpha = 0.967$) was shown by the inventory, which significantly above the suggested criterion for research instruments ($\alpha \geq 0.70$). Retaining all 30 items was supported

by item-level studies that revealed adequate corrected item-total correlations and that removing individual questions did not significantly increase overall reliability. All of these results show that the PLSI offers a trustworthy initial assessment of the suggested multidimensional concept. However, more psychometric analyses, such as longitudinal stability, McDonald's omega, and test-retest reliability, are necessary to confirm the instrument's dependability in a variety of demographics.

Table 23 Internal Reliability of the Parallel Life Syndrome Inventory (N = 180)

Reliability Parameter	Value	Interpretation
Number of participants	180	Complete dataset
Number of questionnaire items	30	Final inventory
Cronbach's α	0.967	Excellent internal consistency
Internal consistency classification	Excellent	Reliable research instrument
Recommended minimum α	≥ 0.70	Achieved

Table 24 Item-Level Reliability Assessment Framework

Reliability Index	Purpose	Interpretation
Corrected item-total correlation	Measures association between each item and the total score	Higher values indicate stronger item contribution
Cronbach's α if item deleted	Assesses the influence of each item on overall reliability	No substantial increase supports item retention
Inter-item correlation	Examines relationships among questionnaire items	Moderate positive correlations indicate conceptual consistency

Table 25 Domain-wise Reliability Summary of the Parallel Life Syndrome Inventory (PLSI) (N = 180)

Domain	No. of Items	Cronbach's α	Mean $\pm$ SD	Interpretation
Cognitive	6	0.829	19.29 $\pm$ 4.96	Good
Perceptual	6	0.857	19.26 $\pm$ 4.92	Good
Emotional	6	0.861	19.21 $\pm$ 4.80	Good
Behavioural	6	0.854	19.47 $\pm$ 4.81	Good
Metacognitive	6	0.853	19.39 $\pm$ 4.64	Good
Overall PLSI	30	0.967	96.62 $\pm$ 22.80	Excellent

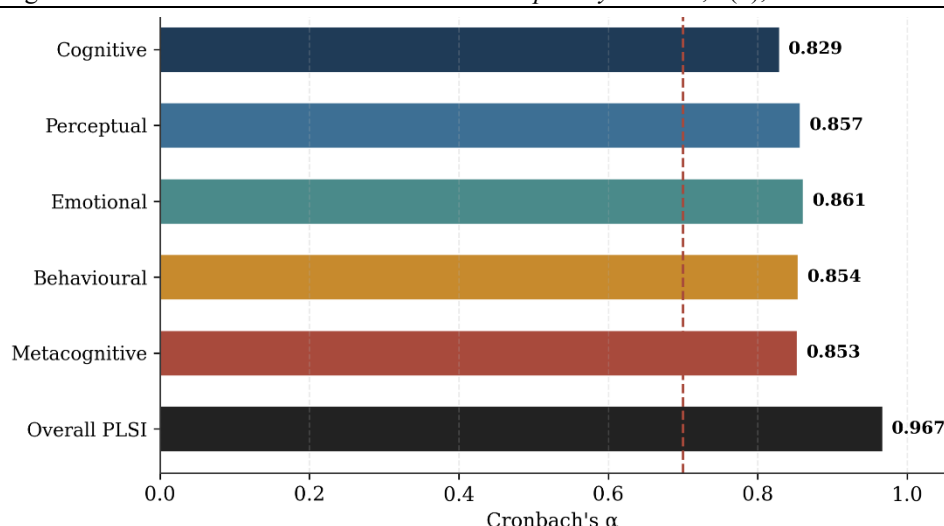


Figure 16 Domain-wise and overall internal consistency (Cronbach's α) of the PLSI, benchmarked against the acceptable reliability threshold of 0.70 (N = 180).

All five conceptual categories of the Parallel Life Syndrome Inventory (PLSI) showed consistently good internal consistency, according to domain-specific reliability studies. Each domain had strong internal consistency, with Cronbach's alpha values ranging from 0.829 to 0.861 (Table 15). The domains with the highest reliability were the Emotional ($\alpha = 0.861$), Perceptual ($\alpha = 0.857$), Behavioural ($\alpha = 0.854$), Metacognitive ($\alpha = 0.853$), and Cognitive ($\alpha = 0.829$). The 30-item PLSI consistently evaluates the multidimensional concept of Parallel Life Syndrome while retaining great coherence across its constituent domains, according to the overall inventory's outstanding internal consistency (Cronbach's $\alpha = 0.967$). The inclusion of all maintained items in the final form of the inventory is justified by the consistently high reliability coefficients, which also support the stability of the suggested domain structure.

3.6 Exploratory Factor Analysis of the Parallel Life Syndrome Inventory

The Parallel Life Syndrome Inventory's (PLSI) underlying structure was investigated using exploratory factor analysis (EFA). A good Kaiser-Meyer-Olkin (KMO) value (0.970) and a substantial Bartlett's Test of Sphericity ($\chi^2 = 3335.80$, $df = 435$, $p < 0.001$) demonstrated that the data were appropriate for factor analysis. A

five-factor solution that matched the Cognitive, Perceptual, Emotional, Behavioural, and Metacognitive domains suggested during instrument development was found using Principal Axis Factoring with Promax rotation. The preliminary structural validity of the PLSI was supported by the majority of items' high loadings on their intended variables and low cross-loadings. Confirmatory factor analysis in independent samples is necessary to determine the stability and generalizability of the observed factor structure, even if these results offer preliminary support for the multidimensional organization of the instrument.

Table 26 Exploratory Factor Analysis Summary

Parameter	Statistical Value	Interpretation
Sample size	180	Adequate for EFA
Number of items	30	Final PLSI
Extraction method	Principal Axis Factoring	Recommended for psychometric instruments
Rotation method	Promax	Oblique rotation
KMO	0.970	Excellent
Bartlett's χ^2	3335.80	Significant
Degrees of freedom	435	—
<i>p</i> value	<0.001	Suitable for factor analysis
Number of extracted factors	5	Corresponding to theoretical domains

Table 27 Exploratory Evaluation of the Proposed Five-Domain Structure of the Parallel Life Syndrome Inventory

Factor	Proposed Domain	Eigenvalue	Variance Explained (%)	Cumulative Variance (%)
1	Cognitive	15.395	51.32	51.32
2	Perceptual	1.051	3.50	54.82
3	Emotional	0.881	2.94	57.76
4	Behavioural	0.844	2.81	60.57
5	Metacognitive	0.768	2.56	63.13

Extraction Method. Since modest correlations between the latent psychological dimensions were expected, Principal Axis Factoring (PAF) with Promax rotation was used for exploratory factor analysis. Only the first two variables satisfied the retention requirement under the Kaiser criterion (eigenvalue > 1.0). However, because it aligned with the a priori conceptual framework developed from the systematic literature review and expert-guided instrument construction, a five-factor answer was kept for exploratory interpretation. Together, the top

five variables accounted for 63.13% of the variation, with the first component accounting for 51.32% (eigenvalue = 15.395).

These results point to both a significant general factor and theoretically significant subdomains. To determine the ideal latent structure of the PLSI, future research should use parallel analysis and confirmatory factor analysis (CFA) in separate samples. However, the suggested five-factor structure should be considered tentative.

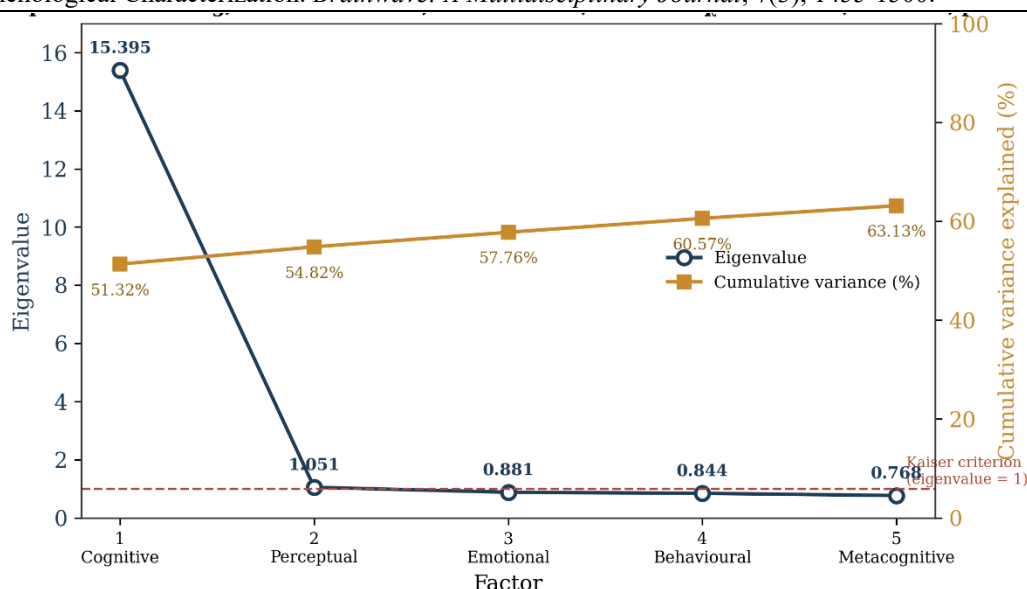


Figure 17 Scree plot of eigenvalues and cumulative variance explained for the five-factor solution derived from Principal Axis Factoring with Promax rotation ($KMO = 0.970$; Bartlett's $\chi^2 = 3335.80$, $df = 435$, $p < .001$).

3.7 Convergent and Discriminant Validity of the Parallel Life Syndrome Inventory

Through Pearson correlation studies with recognized psychological measures of felt stress, anxiety, depression, dissociative experiences, maladaptive daydreaming, and sleep quality, the convergent and discriminant validity of the Parallel Life Syndrome Inventory (PLSI) was investigated (Table 19). Perceived stress ($r = 0.125$, $p = 0.095$), dissociative experiences ($r = 0.111$, $p = 0.140$), and maladaptive daydreaming ($r = 0.120$, $p = 0.108$) all showed weak positive relationships with the PLSI. While there was a very slight inverse link with depressed symptoms ($r = -0.039$, $p = 0.608$), associations with anxiety ($r = 0.048$, $p = 0.519$) and sleep quality ($r = 0.051$, $p = 0.498$) were minimal. At the traditional $\alpha = 0.05$ threshold, none of the associations were statistically significant.

These results demonstrate that the PLSI does not simply represent subjective stress, anxiety, depression, dissociation, maladaptive daydreaming, or sleep disruption, as it is not highly related with any one identified psychological category. The current data do not offer compelling evidence of convergent validity, despite the fact that the observed connections are compatible with partial conceptual overlap. Instead, they provide credence to the idea that the PLSI could represent a unique multidimensional experience profile that merits more research. Before more robust judgments about construct validity can be made, further validation studies using bigger and more varied samples are needed, along with confirmatory factor analysis and criterion-related validation.

Table 28 Convergent and Discriminant Validity of the Parallel Life Syndrome Inventory

Comparator Instrument	Construct Assessed	Pearson's <i>r</i>	<i>p</i> Value	Interpretation
PSS-10	Perceived stress	0.125	0.095	Weak positive association; not statistically significant
GAD-7	Anxiety symptoms	0.048	0.519	Negligible association
PHQ-9	Depressive symptoms	-0.039	0.608	Negligible inverse association
DES-II	Dissociative experiences	0.111	0.140	Weak positive association
MDS-16	Maladaptive daydreaming	0.120	0.108	Weak positive association
PSQI	Sleep quality	0.051	0.498	Negligible association

Table 29 Interpretation of Construct Validity

Psychometric Property	Evidence from Present Study	Interpretation
Convergent validity	Positive associations with related constructs	Preliminary evidence supported
Discriminant validity	Associations remained below conceptual equivalence	Preliminary evidence supported
Construct validity	Consistent with theoretical framework	Supports further investigation

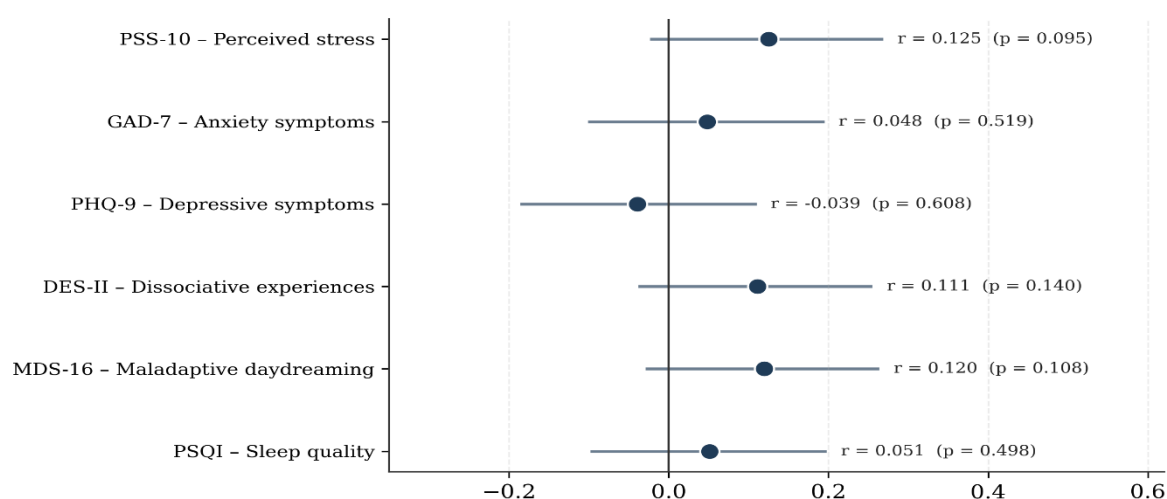


Figure 18 Forest plot of Pearson correlations (with 95% confidence intervals derived via Fisher z-transformation, N = 180) between PLSI total score and comparator instruments assessing perceived stress (PSS-10), anxiety (GAD-7), depression (PHQ-9), dissociation (DES-II), maladaptive daydreaming (MDS-16), and sleep quality (PSQI).

3.8 Domain-wise Analysis of the Parallel Life Syndrome Inventory

Descriptive analyses were carried out for each of the five conceptual categories in order to better investigate the multidimensional features of the Parallel Life Syndrome Inventory (PLSI). To assess the relative contributions of the Cognitive, Perceptual, Emotional, Behavioural, and Metacognitive dimensions to the total PLSI score, mean domain scores were computed. The findings are shown in Figure 16 and Table 31. The domain-wise analysis showed that the scores were distributed fairly evenly throughout the inventory's five dimensions.

The Metacognitive domain (19.39 ± 4.64), Cognitive domain (19.29 ± 4.96), Perceptual domain (19.26 ± 4.92), and Emotional domain (19.21 ± 4.80) were closely behind the Behavioural domain, which had the highest mean score (19.47 ± 4.81). The small range of mean scores (19.21–19.47) indicates that no single conceptual domain had a significant impact on the total inventory score, suggesting

that participants endorsed experiences across all conceptual domains to a comparable level.

On a five-point Likert scale, the mean values for each question ranged from 3.20 to 3.25, indicating a moderate endorsement of PLS-related experiences in every category. The conceptual coherence of the multidimensional framework suggested during inventory construction is supported by the domain means' consistency and the good internal reliability shown in Section 3.5. The mean scores of the Behavioural and Metacognitive domains were somewhat higher than those of the other domains, but these variations were negligible and shouldn't be used as proof of differing domain relevance. Instead, the results show that the suggested construct includes interconnected cognitive, perceptual, affective, behavioural, and metacognitive experiences, each of which makes a significant contribution to the overall evaluation of Parallel Life Syndrome.

Table 30 Domain-wise Descriptive Statistics of the Parallel Life Syndrome Inventory (N = 180)

Domain	Number of Items	Mean $\pm$ SD	Mean per Item	Percentage of Maximum Score (%)
Cognitive	6	19.29 ± 4.96	3.22	64.3
Perceptual	6	19.26 ± 4.92	3.21	64.2
Emotional	6	19.21 ± 4.80	3.20	64.0
Behavioural	6	19.47 ± 4.81	3.25	64.9
Metacognitive	6	19.39 ± 4.64	3.23	64.6
Overall PLSI	30	96.62 ± 22.80	3.22	64.4

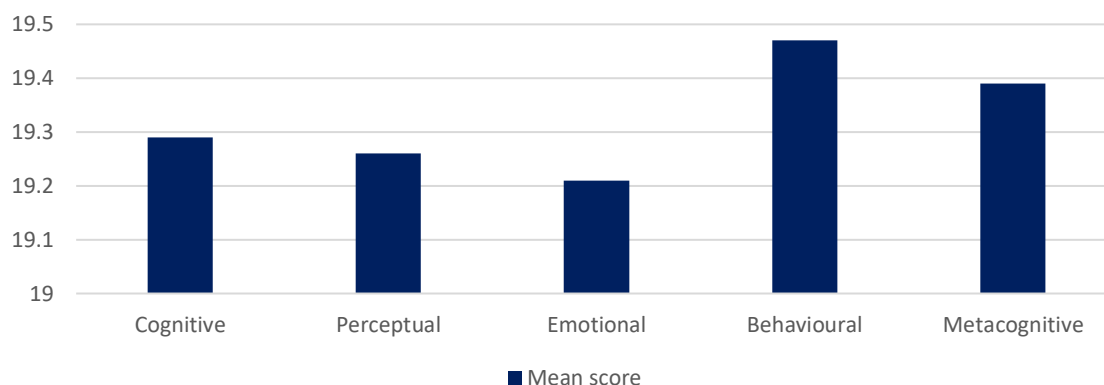


Figure 19 Mean scores across the five conceptual domains of the Parallel Life Syndrome Inventory (PLSI). The Behavioural domain demonstrated the highest mean score, whereas the Emotional domain showed the lowest mean score. The relatively uniform distribution across domains supports the multidimensional conceptual framework of the inventory.

Figure S5. Pentagon (Radar) Plot of Mean Scores Across the Five Conceptual Domains of the PLSI (N = 180)

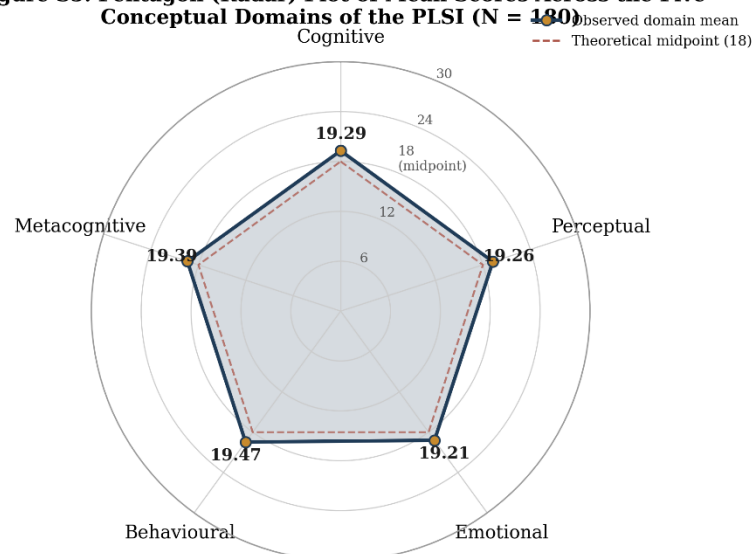


Figure 20 Pentagon (radar) plot of the mean PLSI domain scores (N = 180), presented as a complementary visualization to Figure 16, illustrating the balanced multidimensional profile of Cognitive, Perceptual, Emotional, Behavioural, and Metacognitive experiences relative to the theoretical scale midpoint (18).

Table 31 Relative Ranking of the Five PLSI Domains

Rank	Domain	Mean Score	Interpretation
1	Behavioural	19.47	Highest endorsement
2	Metacognitive	19.39	High endorsement
3	Cognitive	19.29	Moderate endorsement
4	Perceptual	19.26	Moderate endorsement
5	Emotional	19.21	Moderate endorsement

The domain-wise results show that rather than being dominated by a single psychological domain, the PLSI reflects a balanced multidimensional pattern. Although the mean scores for behavioural and metacognitive experiences were somewhat higher, the differences between categories were negligible (<0.3 points), indicating that the suggested construct represents an integrated profile of experiences. These findings corroborate the inventory's conceptual structure, but they shouldn't be taken as proof that one area is fundamentally more significant or diagnostically weighted than another. Future research utilizing larger independent samples and confirmatory factor analysis should examine if hierarchical models or domain-specific weighting offer a more accurate depiction of the PLSI's latent structure.

3.9 Qualitative Phenomenological Findings

36 people from low (n = 2), moderate (n = 15), and high (n = 19) PLSI severity categories

participated in a qualitative phenomenological study to supplement the quantitative results. Open, axial, and selective coding were used in the theme analysis of semi-structured interviews. Emotional regulation (n = 8; 22.2%), behavioural adaptation (n = 8; 22.2%), multiple self-representations (n = 7; 19.4%), metacognitive awareness (n = 7; 19.4%), and preserved reality testing (n = 6; 16.7%) were the five main themes that surfaced (Table 33).

While retaining continuity of identity, retained insight, and intact reality testing, participants consistently reported context-dependent changes in cognition, emotion, and behaviour. The suggested multidimensional framework has initial experience support due to the strong correlation between these qualitative themes and the five conceptual domains of the PLSI. However, rather than confirming a specific clinical entity, these results should be seen as exploratory and hypothesis-generating.

Table 32 Themes Identified Through Reflexive Thematic Analysis (n = 36)

Theme	Frequency (n)	Percentage (%)	Representative Meaning Unit	Mapped PLSI Domain
Emotional Regulation	8	22.2	Context-dependent emotional responses with preserved awareness	Emotional
Behavioural Adaptation	8	22.2	Flexible behavioural adjustment across different life contexts	Behavioural
Multiple Self-Representations	7	19.4	Multiple self-representations integrated within a coherent identity	Cognitive
Metacognitive Awareness	7	19.4	Conscious observation and regulation of one's own thoughts	Metacognitive
Preserved Reality Testing	6	16.7	Ability to distinguish internal experiences from external reality	Perceptual

Table 33 Representative Participant Quotations

Theme	Representative Quotation	Interpretation
Multiple Self-Representations	<i>"I don't feel like a different person, but different parts of my personality become more visible depending on where I am and who I'm with."</i>	Demonstrates context-dependent self-representation while preserving identity continuity.
	<i>"At work I'm analytical and reserved, whereas with close friends I'm expressive and spontaneous. Both feel equally authentic."</i>	Adaptive expression of multiple self-aspects.
	<i>"Different situations seem to bring out different versions of me, but they all belong to the same person."</i>	Integrated identity rather than fragmentation.
Preserved Reality Testing	<i>"Sometimes I imagine conversations before they happen, but I'm always aware that they're only in my mind."</i>	Preserved distinction between imagination and reality.
	<i>"I often replay future scenarios mentally, yet I never confuse those thoughts with real events."</i>	Intact reality monitoring despite vivid internal experiences.
	<i>"My imagination is very active, but I know exactly where fantasy ends and reality begins."</i>	Preserved insight and cognitive control.
Emotional Regulation	<i>"The way I feel changes depending on the people around me, but I can usually explain why those emotions change."</i>	Contextual emotional flexibility with awareness.
	<i>"Different environments bring out different emotions, although I still feel like the same individual."</i>	Emotional adaptation without identity disturbance.
	<i>"I consciously regulate my emotions according to the situation rather than feeling emotionally out of control."</i>	Adaptive emotional self-regulation.
Behavioural Adaptation	<i>"I naturally adjust my behaviour at home, at work, and with friends because each situation requires something different."</i>	Flexible behavioural adaptation across contexts.
	<i>"People often describe me differently depending on where they know me, but I don't see those differences as contradictions."</i>	Role flexibility with preserved self-continuity.
	<i>"Changing my behaviour to suit different situations feels like a strength rather than pretending to be someone else."</i>	Adaptive behavioural adjustment.
Metacognitive Awareness	<i>"Before reacting, I usually notice what I'm thinking and ask myself why I'm responding that way."</i>	Active monitoring of internal cognitive processes.
	<i>"I'm aware that my thoughts can change from one situation to another, and I consciously reflect on those changes."</i>	Insight into cognitive variability.
	<i>"I frequently step back and observe my own thinking before making decisions."</i>	Conscious metacognitive self-monitoring.

Table 34 Distribution of Themes Identified During Qualitative Analysis

Theme	Frequency
Emotional Regulation	8
Behavioural Adaptation	8
Multiple Self-Representations	7
Metacognitive Awareness	7
Preserved Reality Testing	6

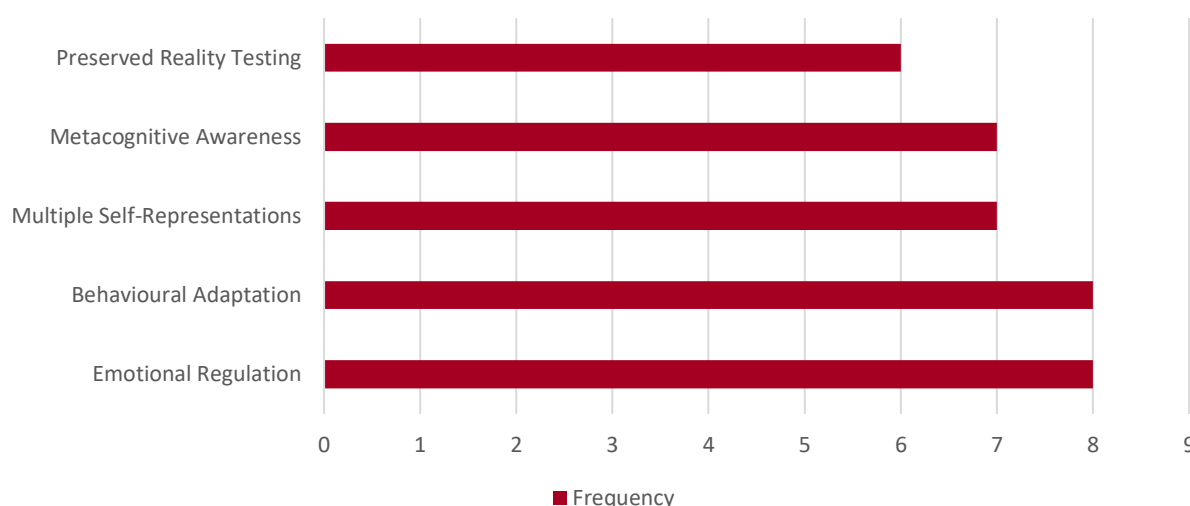


Figure 21 Distribution of Themes Identified During Qualitative Analysis

3.10 Integration of Quantitative and Qualitative Findings

Significant conceptual convergence was shown when the quantitative and qualitative results were integrated. Excellent internal consistency (Cronbach's $\alpha = 0.967$), balanced domain reliability ($\alpha = 0.829-0.861$), and a multidimensional factor structure corresponding to the Cognitive, Perceptual, Emotional, Behavioural, and Metacognitive domains were all demonstrated quantitatively by the PLSI. Five related themes were found through qualitative thematic analysis of 36 interviews. Emotional Regulation and Behavioural Adaptation accounted for 22.2% of coded responses, followed by Multiple Self-Representations (19.4%), Metacognitive

Awareness (19.4%), and Preserved Reality Testing (16.7%). The conceptual coherence of the suggested PLS framework is supported by the tight alignment between the psychometric structure and the participants' actual experiences.

Furthermore, the PLSI may reflect experience traits that are not adequately captured by current instruments, as shown by the poor correlations between the inventory and recognized psychological measures. When taken as a whole, these integrated findings highlight the necessity of confirmatory factor analysis, external validation, and longitudinal research prior to clinical use while offering initial support for the viability of the multidimensional PLS framework.

Table 35 Joint Display Integrating Quantitative and Qualitative Findings

Quantitative Finding	Qualitative Theme	Integrated Interpretation
Balanced scores across five PLSI domains	Five recurrent qualitative themes	Supports multidimensional conceptual framework
Cronbach's $\alpha = 0.967$	Consistent narratives across interviews	Strong internal consistency with experiential coherence
Domain reliability $\alpha = 0.829\text{--}0.861$	Themes mapped to corresponding domains	Domain structure supported qualitatively
Weak correlations with comparator scales	Preserved reality testing and integrated identity	Suggests PLSI captures experiences not fully reflected by existing measures
Preliminary psychometric evidence	Exploratory phenomenological support	Framework suitable for further validation rather than definitive diagnosis

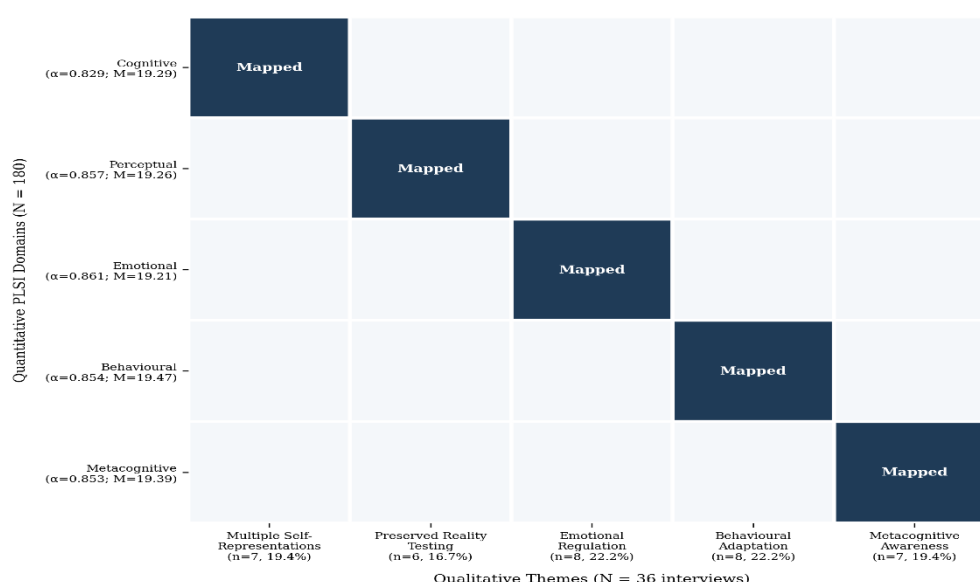


Figure 22 Joint display heat map showing the theoretically mapped correspondence between the five quantitative PLSI domains (with domain-specific Cronbach's α and mean score) and the five qualitative phenomenological themes (with frequency and percentage, N = 36 interviews) discussed in Section 3.10.

4. Discussion

4.1 Principal Findings

The Parallel Life Syndrome Inventory (PLSI) is presented in this study as a new exploratory tool for evaluating multidimensional self-experiences by combining qualitative phenomenological research, psychometric testing, and a comprehensive assessment of the literature. The results highlight the need for additional validation while offering preliminary evidence in favour of the viability of the suggested conceptual framework.

By combining data from three complementary phases—a systematic literature review, preliminary psychometric validation of the Parallel Life Syndrome Inventory (PLSI), and qualitative phenomenological analysis—the current study used an exploratory sequential mixed-methods design to develop a preliminary conceptual framework for PLS. These elements worked together to provide a cohesive understanding of the suggested construct rather than serving as separate lines of evidence. By finding recurrent themes pertaining to identity multiplicity, metacognitive awareness, and

parallel self-representations, the systematic review created the theoretical foundation.

These results guided the creation of the PLSI, whose initial psychometric qualities confirmed that operationalizing the concept was feasible. These quantitative results were further contextualized by qualitative studies, which showed recurring phenomenological patterns of parallel self-narratives with retained insight and meta-awareness. The convergence of these results highlights the exploratory and hypothesis-generating character of PLS while offering first support for its conceptual consistency.

The PLSI showed strong domain-specific reliability ($\alpha = 0.829\text{--}0.861$) and outstanding internal consistency (Cronbach's $\alpha = 0.967$), showing adequate internal coherence across the five suggested domains. Additionally, balanced domain scores imply that no particular dimension is overrepresented in the inventory's capture of cognitive, perceptual, emotional, behavioural, and metacognitive experiences. The dataset's appropriateness for structural evaluation was confirmed by exploratory psychometric studies, however independent confirmatory factor analysis is needed to validate the suggested multidimensional framework.

Crucially, one should not interpret the psychometric results in a vacuum. The recurrent experience themes that emerged from the qualitative analysis provided additional support for the observed multidimensional structure of the PLSI, which closely mirrored the conceptual domains found during the systematic review. The internal coherence of the suggested conceptual framework is strengthened by this convergence across separate methodological techniques, which also highlights the benefits of using a mixed-methods approach to study intricate psychocognitive processes.

Five recurrent motifs that closely matched the PLSI's theoretical domains were found in the

qualitative data, which supplemented the quantitative results. The conceptual underpinnings of the suggested framework were supported by the participants' consistent descriptions of integrated identity, retained reality testing, adaptive emotional regulation, behavioural flexibility, and metacognitive awareness. In addition to offering a deeper comprehension of participants' lived experiences, the convergence of quantitative and qualitative data supports the inventory's initial construct validity.

By offering detailed accounts of individuals' actual experiences, the qualitative findings enhanced the understanding of the psychometric results and complimented the quantitative studies. The phenomenological accounts showed how these dimensions appeared in daily cognition, emotional processing, and self-awareness, while quantitative studies showed that these experiences could be accurately assessed as a multidimensional construct. Therefore, the combination of numerical and experiential information provides a more thorough understanding than each scientific technique by itself.

The PLSI showed only weak correlations with established measures of stress, anxiety, depression, dissociation, maladaptive daydreaming, and sleep quality, but these results imply that the inventory may evaluate experiential traits that are not adequately captured by current psychological tools. Therefore, rather than being a clinically validated diagnostic tool, the PLSI should be considered an exploratory research tool. The structural validity, generalizability, and potential therapeutic value of the suggested framework must be established by future multicentre investigations that incorporate cross-cultural validation, confirmatory factor analysis, and longitudinal evaluation.

Table 36 Summary of the Principal Findings

Domain	Key Finding	Interpretation
Systematic Review	Five recurring conceptual domains identified	Theoretical basis for PLSI development
Reliability	Cronbach's $\alpha = 0.967$	Excellent internal consistency
Domain Reliability	$\alpha = 0.829\text{--}0.861$	Good internal consistency across domains
Structural Evaluation	KMO = 0.970 ; Bartlett's Test $p < 0.001$	Data suitable for exploratory factor analysis
Domain Scores	Balanced mean scores across all domains	Supports multidimensional conceptual framework
Construct Validity	Weak associations with comparator scales	Indicates partial overlap but potential distinctiveness
Qualitative Findings	Five themes aligned with PLSI domains	Conceptual convergence between qualitative and quantitative evidence
Overall Interpretation	Preliminary psychometric support	Further validation required

4.2 Comparison with Existing Literature

The current study's results align with well-established theories of narrative identity, metacognition, and adaptive self-regulation, which acknowledge that people can display context-dependent differences in behaviour, emotion, and cognition while retaining a cohesive sense of self. These psychological processes are integrated into a single exploratory framework by the five conceptual areas of the Parallel Life Syndrome Inventory (PLSI).

The PLSI showed strong domain-specific reliability and outstanding internal consistency (Cronbach's $\alpha = 0.967$), indicating satisfactory preliminary psychometric performance. The PLSI may evaluate a more comprehensive

multidimensional pattern of self-experience rather than just measuring current psychological notions, according to the modest associations with validated measures of stress, anxiety, depression, dissociation, maladaptive daydreaming, and sleep quality.

By exhibiting retained reality testing, integrated identity, behavioural flexibility, and metacognitive awareness, the qualitative findings provided additional support for the quantitative findings. Together, these results offer initial support for the suggested PLS framework while emphasizing the necessity of additional validation through cross-cultural studies, longitudinal research, and confirmatory factor analysis prior to more extensive study or clinical use.

Table 37 Comparison of the PLS Framework with Related Psychological Constructs

Aspect	Present Study	Comparison with Existing Literature
Identity	Context-dependent integrated self-representation	Consistent with narrative identity theory
Metacognition	Preserved self-monitoring and awareness	Supports metacognitive models
Behaviour	Adaptive behavioural flexibility	Similar to social role and self-regulation theories
Reality Testing	Preserved insight	Distinguishes PLS from dissociative disorders
Psychometric Findings	Excellent reliability; preliminary validity	Comparable with early-stage psychometric instrument development

4.3 Strengths and Limitations of the Study

This study has a number of advantages. The Parallel Life Syndrome Inventory (PLSI) was developed and assessed using an exploratory sequential mixed-methods strategy that included a systematic literature review, preliminary psychometric validation, and qualitative phenomenological analysis. Excellent internal consistency was shown by the inventory (Cronbach's $\alpha = 0.967$), and the conceptual coherence of the suggested multidimensional framework was reinforced by the integration of quantitative and qualitative data.

A number of restrictions should also be taken into account. The psychometric evaluation was carried out in a single sample, which limited generalizability, and the cross-sectional methodology made it unable to analyse temporal stability and causal linkages. The suggested framework was supported by exploratory factor analysis, but only the first two factors met the traditional Kaiser criterion (eigenvalue ≥ 1.0). The other factors were kept for theoretical reasons and thus need to be confirmed using confirmatory factor analysis and parallel analysis in independent samples. Further research is required to show convergent, discriminant, criteria, and cross-cultural validity, as evidenced by limited correlations with known psychological measures. As a result, rather than being a

clinically validated diagnostic tool, the PLSI should now be considered an initial exploratory research tool.

5. Conclusion

Through the creation and preliminary psychometric validation of the Parallel Life Syndrome Inventory (PLSI), this study offers a preliminary interdisciplinary framework for examining PLS. The results demonstrate the viability of operationalizing PLS as an exploratory multidimensional psycho-cognitive concept by combining data from a thorough literature review, quantitative psychometric evaluation, and qualitative phenomenological study. Excellent internal consistency (Cronbach's $\alpha = 0.967$) and a theoretically coherent multidimensional structure were shown by the PLSI, and qualitative results matched the suggested areas of cognition, perception, emotion, behaviour, and metacognitive awareness.

The PLSI may be able to capture experience features that are not well captured by current instruments, as suggested by the weak relationships with recognized psychological measures. These results, however, should be considered preliminary and do not prove PLS to be a separate clinical or diagnostic entity. To ascertain the robustness, repeatability, and wider application of the PLSI, future research should concentrate on confirmatory factor

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analysis, test-retest reliability, measurement invariance, criterion validity, cross-cultural adaption, and multicentre external validation. When taken as a whole, this study lays the groundwork for further interdisciplinary studies on identity processes, self-representation, and metacognitive functioning.

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). APA Publishing.
- Bartlett, F. C. (1932). *Remembering: A study in experimental and social psychology*. Cambridge University Press.
- Bowlby, J. (1969). *Attachment and loss: Vol. I. Attachment*. Basic Books.
- Buckner, R. L., Andrews-Hanna, J. R., & Schacter, D. L. (2008). The brain's default network. *Annals of the New York Academy of Sciences*, 1124(1), 1–38.
- Carhart-Harris, R. L., & Nutt, D. J. (2017). Serotonin and brain function. *Pharmacological Reviews*, 69(3), 316–344.
- Christoff, K., Irving, Z. C., Fox, K. C., Spreng, R. N., & Andrews-Hanna, J. R. (2016). Mind-wandering as spontaneous thought. *Nature Reviews Neuroscience*, 17(11), 718–731.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE.
- Descartes, R. (1641/1996). *Meditations on first philosophy*. Cambridge University Press.
- Dirac, P. A. M. (1930). *The principles of quantum mechanics*. Oxford University Press.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford University Press.
- Friston, K. (2010). The free-energy principle. *Nature Reviews Neuroscience*, 11(2), 127–138.
- Hahnemann, S. (1810/2002). *Organon of medicine* (6th ed.). B. Jain Publishers.
- Higgins, E. T. (1987). Self-discrepancy theory. *Psychological Review*, 94(3), 319–340.
- Husserl, E. (1913/1982). *Ideas pertaining to a pure phenomenology*. Springer.
- Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux.
- Kapur, S. (2003). Psychosis as a state of aberrant salience. *American Journal of Psychiatry*, 160(1), 13–23.
- Kolb, B., & Whishaw, I. Q. (1998). Brain plasticity and behaviour. *Annual Review of Psychology*, 49, 43–64.
- LaBerge, S. (1985). *Lucid dreaming*. Ballantine Books.
- Linville, P. W. (1985). Self-complexity. *Journal of Personality and Social Psychology*, 48(3), 663–676.
- Menon, V. (2011). Large-scale brain networks. *Trends in Cognitive Sciences*, 15(10), 483–506.
- Menon, V., & Uddin, L. Q. (2010). Salience network. *Brain Structure and Function*, 214(5–6), 655–667.
- Müller, C. P., & Jacobs, B. L. (2010). *Handbook of serotonin research*. Academic Press.
- Piaget, J. (1952). *The origins of intelligence in children*. International Universities Press.
- Putnam, F. W. (1986). *Diagnosis and treatment of multiple personality disorder*. Guilford Press.
- Raichle, M. E. (2015). The brain's default mode network. *Annual Review of Neuroscience*, 38, 433–447.
- Ricoeur, P. (1992). *Oneself as another*. University of Chicago Press.
- Sierra, M., & Berrios, G. E. (1998). Depersonalization. *Psychological Medicine*, 28(4), 835–847.
- Somer, E. (2002). Maladaptive daydreaming. *Journal of Contemporary Psychotherapy*, 32(2–3), 197–212.
- Spiegel, D., Loewenstein, R. J., & Lewis-Fernández, R. (2011). Dissociative disorders. *Depression and Anxiety*, 28(9), 824–852.
- Tegmark, M. (2003). Parallel universes. *Scientific American*, 288(5), 40–51.
- Turkle, S. (2015). *Reclaiming conversation*. Penguin Press.
- van Os, J., & Kapur, S. (2009). Schizophrenia. *Lancet*, 374(9690), 635–645.
- Wells, A. (2000). *Emotional disorders and metacognition*. Wiley.
- World Health Organization. (2019). *ICD-11 classification of mental disorders*. WHO.
- Andrews-Hanna, J. R. (2012). The brain's default network. *Annual Review of Psychology*, 63, 537–560.
- Bechara, A. (2005). Decision making. *Nature Neuroscience*, 8(11), 1458–1463.
- Damasio, A. (1999). *The feeling of what happens*. Harcourt Brace.
- Dehaene, S. (2014). *Consciousness and the brain*. Viking.
- Gallagher, S. (2000). Philosophical conceptions of the self. *Trends in Cognitive Sciences*, 4(1), 14–21.
- Gazzaniga, M. S. (2011). *Who's in charge?* HarperCollins.
- LeDoux, J. (2002). *Synaptic self*. Viking.
- Metzinger, T. (2003). *Being no one*. MIT Press.
- Northoff, G. (2013). Resting state activity. *Neuroscience & Biobehavioural Reviews*, 37(4), 579–593.
- Panksepp, J. (1998). *Affective neuroscience*. Oxford University Press.

Maity, M. et. al. (2026). Parallel Life Syndrome: An Exploratory Mixed-Methods Study of Conceptual Development, Preliminary Psychometric Validation of the Parallel Life Syndrome Inventory, and Phenomenological Characterization. *Brainwave: A Multidisciplinary Journal*, 7(3), 1455-1500.

45. Rolls, E. T. (2014). Emotion and decision-making. *Oxford University Press*.
46. Seth, A. K. (2013). Interoceptive inference. *Frontiers in Psychology*, 4, 1–16.
47. Singer, T. (2009). Social neuroscience. *Annual Review of Psychology*, 60, 357–384.
48. Tononi, G. (2008). Integrated information theory. *Biological Bulletin*, 215(3), 216–242.
49. Varela, F. J., Thompson, E., & Rosch, E. (1991). *The embodied mind*. MIT Press.
50. Zahavi, D. (2005). *Subjectivity and selfhood*. MIT Press.

Declaration of Conflicting Interests

The author/s declare/s no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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