

Human Asset Portfolio Hedge Engineering (HAPHE):

A Formal Empirical Translation of Financial Portfolio Theory
into Systemic Social Inquiry — Concentration Exposure,
Asset Diversification and the Prevention of Identity Liquidation

PREPRINT — Submitted for peer review June 2026. This version may differ from the final published version.

HAPHE Research Commission

Commissioned Research — HAPHE: Human Asset Portfolio Hedge Engineering

Lead Researcher: Sarah Olushola Ayeni

Oxford Applied Anthropology

Correspondence: [haphe@contact]

Version 3.0 — June 2026

Intellectual Property Statement

The HAPHE framework, its associated constructs, terminology, assessment instruments and methodology are the intellectual property of HAPHE, trademarked in the United Kingdom and the United States of America. The theoretical claims established in this paper extend to all populations, contexts and institutional domains in which the framework's constructs are applicable, whether or not those populations or domains are explicitly named herein. All partnership applications, derivative research and extensions of the framework produced within or arising from any research collaboration or institutional partnership are proposed as validations of prior HAPHE theoretical claims and do not constitute independent intellectual contributions. All rights reserved.

Abstract

This paper establishes a structural translation of financial portfolio theory into systemic social inquiry, demonstrating that the mitigation of personal crisis relies on the systematic diversification of Social Emotional Assets (SEA) to prevent catastrophic Identity Liquidation. Human Asset Portfolio Hedge Engineering (HAPHE) is introduced not as a metaphor but as a formal empirical framework that applies the mathematical mechanics of hedging, diversification and concentration risk — drawn from Modern Portfolio Theory (Markowitz, 1952) — to the domain of human social

investment. The framework proposes that individuals distribute a finite psychological resource, Time (Thought + Activity) or T(T+A), across a taxonomy of ten Social Emotional Asset categories, and that the structural distribution of this resource — quantified by the Concentration Exposure Index (CEI) — is a primary and measurable determinant of systemic vulnerability at points of disruption and transition. Two preliminary evidence bodies validate the framework's core claims across demographically distinct populations. The HAPHE Ten-Infant Observational Study established that infants with diversified comfort object portfolios exhibited an 83% reduction in distress duration upon asset removal compared to infants with single-object concentration, with no overlap between groups and consistent replacement object rejection by the concentrated group — demonstrating that portfolio concentration dynamics operate prior to language, culture or deliberate choice. This structural dynamic is replicated in the HAPHE Student Population Inquiry (n=823, three UK universities), where 40.1% of participants presented Stronghold-level CEI configurations (CEI > 0.70); Stronghold-level participants systematically underestimated their own concentration (the self-assessment gap, consistent with the happiness blindness construct); and the most prevalent misidentified concentration pattern was the social group counted as multiple independent assets but constituting a single Family-Like Group SEA (false diversification). A brief intervention pilot (n=129) demonstrated that structural portfolio awareness can be generated in under 90 seconds in naturalistic settings, shifting self-identification as concentrated from 0% to over 80% post-intervention. The paper introduces the complete HAPHE proprietary lexicon; the investment mechanism including opportunity cost dynamics and periodic self-audit; the concept of differential asset volatility and the Risk-Adjusted CEI; the HAPHE Audit and its three deployment contexts; six institutional population domains with established prior theoretical claims; and a formal empirical programme for validation. University and institutional research partnerships are invited under formal data sharing and intellectual property agreements.

Keywords: *Human Asset Portfolio Hedge Engineering; HAPHE; Social Emotional Assets; SEA; Concentration Exposure Index; CEI; T(T+A); HAPHE Audit; identity liquidation; asset rupture; happiness blindness; portfolio diversification; systemic resilience; Modern Portfolio Theory; social inquiry; prevention; upstream intervention; leaving care; criminal justice; military transition; mental health; university retention; schools; applied anthropology; family-like group; false diversification; interdisciplinary*

Proprietary Lexicon: HAPHE Formal Terminology

The following terminology constitutes the proprietary conceptual vocabulary of the HAPHE framework. Each term is formally defined below and used consistently throughout this paper. These definitions represent the intellectual property of HAPHE: Human Asset Portfolio Hedge Engineering, trademarked in the United Kingdom and the United States of America.

HAPHE — Human Asset Portfolio Hedge Engineering

The overarching macro-system architecture that applies financial risk-mitigation, hedging and diversification principles to human social structures to prevent identity collapse. HAPHE establishes that the same structural properties that determine portfolio vulnerability in financial markets — concentration, correlation, false diversification and the invisibility of risk during periods of high return — operate with equivalent force in the domain of human social and emotional investment.

Root disciplines: Modern Portfolio Theory (Markowitz, 1952) / Systemic Social Inquiry / Applied Anthropology

HAPHE Audit

The proprietary assessment instrument through which the HAPHE framework is operationalised at the individual, group and institutional level. The HAPHE Audit administers the TTA Allocation Assessment, generates the Concentration Exposure Index, applies the false diversification diagnostic and produces the Risk-Adjusted CEI. The HAPHE Audit is designed for deployment across three distinct assessment contexts: individual self-audit, in which the instrument is self-administered; third-party audit, in which the instrument is administered by a trained HAPHE practitioner (the Hafé); and population audit, in which aggregated CEI data is analysed at cohort or community level to produce institutional portfolio intelligence. Each context produces distinct outputs and serves distinct intervention purposes within the HAPHE framework. The HAPHE Audit and all its deployment contexts constitute the core intellectual property of HAPHE and are available through HAPHE directly.

Root disciplines: Psychometric Assessment Design / Clinical Audit Methodology / Financial Risk Audit Practice

SEA — Socio-Emotional Assets

The fundamental units of value within an individual's social and emotional life, encompassing the people, roles, communities, beliefs and purposes in which T(T+A) is invested and from which psychological returns — belonging, identity, purpose, daily structure and the sense of being known and chosen — are derived. The HAPHE framework identifies ten SEA categories constituting the complete taxonomy of human social investment (see Section 3.2).

Root disciplines: Economic Asset Classification / Attachment Theory (Bowlby, 1969) / Social Capital Theory (Putnam, 2000)

CEI — Concentration Exposure Index

The primary quantitative diagnostic metric used to calculate the degree to which an individual's T(T+A) is over-indexed within a single SEA category. The CEI ranges from 0.10 (theoretical maximum diversification across ten categories) to 1.00 (total concentration in a single category). The CEI is derived from the HAPHE Audit's TTA Allocation Assessment, which constitutes proprietary intellectual property of HAPHE. The CEI measures structural vulnerability at the portfolio level — not the quality or depth of individual investments but the degree to which the portfolio as a whole is exposed to single-asset disruption risk.

Root disciplines: Credit Risk Management / Statistical Indexing / Modern Portfolio Theory

T(T+A) — Time (Thought + Activity)

The algebraic operational formula used to measure active social investment within the HAPHE framework. Total psychological investment is expressed as a function of chronological Time (T) as a multiplier of cognitive load (Thought) and behavioural output (Activity). T(T+A) is always proportional to the life lived so far and is treated as a finite resource: what is invested in the primary SEA is simultaneously and unavoidably withheld from all secondary and tertiary assets through the mechanism of opportunity cost.

Root disciplines: Algorithmic Modelling / Behavioural Sociology / Attention Economics

Asset Class (Social)

The distinct categorical groupings of human SEA investments — corresponding to the ten SEA categories — that carry differing levels of systemic volatility and psychological yield. Different Asset Classes exhibit structurally different vulnerability characteristics. Differential Asset Class volatility is accounted for within the HAPHE framework through the proprietary Volatility Coefficient ($V\sigma$) system described in Section 3.6.

Root disciplines: Financial Asset Allocation / Risk Classification

Asset Rupture

The abrupt, structural break or termination of a specific Socio-Emotional Asset. Crucially, Asset Rupture occurs within the portfolio — leaving the core identity of the individual intact but temporarily unhedged. Asset Rupture is distinguished from identity damage or clinical psychopathology: it is a structural event in the portfolio, not a damage event to the self. The severity of its psychological consequence is proposed to be a function of the CEI at the time of rupture and the Volatility Coefficient of the disrupted Asset Class.

Root disciplines: Market Disruption Theory / Trauma-Informed Care / Portfolio Risk Management

Identity Liquidation

The catastrophic, cascading collapse of an individual's psychological sense of self, occurring when a highly concentrated portfolio suffers an Asset Rupture without a diversified hedge to absorb the systemic shock. Identity Liquidation is the end state of unhedged concentration meeting Asset Rupture: because the primary asset has been carrying the full weight of the individual's identity, daily structure, purpose and belonging simultaneously, its rupture does not produce a discrete loss but a total structural collapse across all correlated dimensions simultaneously.

Root disciplines: Corporate Liquidation Theory / Ego-Dissolution Theory / Systemic Collapse Modelling

1. Introduction: From Metaphor to Formal Empirical Translation

The observation that human beings experience losses disproportionate to the apparent magnitude of what has been lost is documented across clinical, sociological and developmental literatures. The grief following the end of a significant relationship, the disorientation following retirement from a long career, the psychological devastation following the closure of a community institution — in each case the subjective experience of loss significantly exceeds what conventional accounts of bereavement or adjustment would predict. People describe these experiences using a distinctive and consistent lexicon: it was my everything; I do not know who I am without it; the whole world fell away.

Previous theoretical accounts have located the explanation for this phenomenology in the depth of attachment to the lost object — in the security or insecurity of the bond, in the significance of the relationship to the individual's narrative identity, in the absence of adequate coping resources. These accounts are not wrong. But they are incomplete. They address the quality of the investment in the disrupted asset. They do not address the structural architecture of the portfolio within which that asset was held.

This paper proposes that the experience of total loss following the disruption of a single relationship or role reflects a structural property of the emotional life as it was organised before the loss occurred. Specifically, it proposes that these experiences characteristically occur when the individual's finite psychological resource — $T(T+A)$: Time (Thought + Activity) — has been concentrated in a single dominant Socio-Emotional Asset such that its disruption simultaneously disrupts everything correlated with it. The loss of one thing feels like the loss of everything because, structurally, everything was organised around one thing.

The HAPHE framework — Human Asset Portfolio Hedge Engineering — formalises this observation as a structural translation of financial portfolio theory into systemic social inquiry. This translation is not offered as metaphor. It is offered as a formal empirical claim: that the same mathematical properties that determine portfolio vulnerability in financial markets operate with structural equivalence in the domain of human social and emotional investment, and that these properties are measurable, predictive and responsive to deliberate intervention.

This paper establishes that the mitigation of personal crisis relies on the systematic diversification of Social Emotional Assets to prevent catastrophic Identity Liquidation — and that this claim is grounded in, and testable by, the mathematical mechanics of hedging and diversification drawn from Modern Portfolio Theory.

The paper is structured as follows. Following the proprietary lexicon established above, Section 2 situates the framework within existing theoretical contexts and establishes its distinguishing contributions. Section 3 introduces the core theoretical architecture. Section 4 presents the preliminary cross-demographic evidence base, beginning with the ten-infant observational study as the foundational evidence that the mechanism operates prior to language, culture and deliberate choice, before proceeding to the student population inquiry which confirms the mechanism at scale. Section 5 addresses methodological and ethical considerations. Section 6 establishes the framework's theoretical claims across six institutional population domains. Section 7 proposes directions for formal empirical validation. Section 8 concludes.

2. Theoretical Context and Distinguishing Contributions

2.1 Modern Portfolio Theory: The Formal Anchor

The HAPHE framework is explicitly grounded in Markowitz's Modern Portfolio Theory (MPT, 1952), which established that the risk of a portfolio cannot be assessed by examining individual assets in isolation but must be evaluated at the level of the portfolio's structural properties — specifically its diversification across uncorrelated asset classes. MPT demonstrated mathematically that a diversified

portfolio produces superior risk-adjusted returns to a concentrated portfolio, because losses in any individual asset are absorbed by the remaining structure rather than cascading across correlated positions.

The HAPHE framework applies this mathematical insight structurally to the domain of human social investment. The formal translation is grounded in the lead researcher's foundational academic training in accountancy and finance alongside subsequent graduate study in applied anthropology at the University of Oxford, producing the interdisciplinary lens through which MPT is applied structurally rather than metaphorically to social inquiry. The individual's portfolio of Socio-Emotional Assets is proposed to exhibit the same structural vulnerabilities as a financial portfolio: concentration in a single dominant asset class exposes the entire portfolio to single-asset disruption risk; assets that appear independent but are correlated back to a single source produce false diversification that masks the true CEI; and the period of highest portfolio performance is, paradoxically, the period of greatest structural risk because it is the period during which concentration is most invisible and least likely to be audited.

The formal translation from financial to social inquiry is grounded in three structural equivalences: the finite resource constraint (capital in finance; $T(T+A)$ in social investment); the diversification principle (uncorrelated asset classes in finance; genuinely independent SEA categories in social investment); and the concentration risk principle (beta and correlation in finance; CEI and Volatility Coefficient in social investment). These equivalences are structural rather than metaphorical: they propose that the same mathematical relationships hold in both domains.

2.2 Attachment Theory

Bowlby's attachment theory (1969, 1973, 1980) addresses the quality and security of individual bonds. The HAPHE framework occupies a distinct theoretical space: it addresses the structural architecture of the full portfolio of bonds — specifically the degree to which $T(T+A)$ is distributed across multiple independent SEA categories or concentrated in a single dominant one. A person may have secure attachment to a single primary relationship; the HAPHE framework's concern is with the structural distribution of investment across the portfolio, not the security characteristics of individual bonds within it. Structural concentration produces vulnerability independently of attachment security.

2.3 Resilience Frameworks

The resilience literature (Luthar et al., 2000; Ungar, 2012; Southwick and Charney, 2012) treats resilience either as a stable personality trait or as a set of developable protective factors. The HAPHE framework reframes resilience as a structural consequence of portfolio architecture rather than a property of the person. The individual who holds when the disruption comes has not loved less or coped better by

temperament — they have built differently. This reframing makes resilience teachable, designable and measurable in ways that trait-based accounts do not permit.

2.4 Positive Psychology

Seligman's PERMA framework (2011) identifies components of flourishing but does not interrogate whether those components are genuinely independent of each other within an individual's portfolio. The HAPHE framework identifies this as a critical structural gap: a person whose positive emotion, engagement, relationships, meaning and accomplishment all derive from a single primary SEA may score highly on PERMA measures while being structurally concentrated in a way that renders the entire profile vulnerable to single-asset disruption. The framework asks not what are the components of flourishing but whether those components are independently rooted.

2.5 Social Capital Theory

Putnam's distinction between bonding and bridging social capital (2000) has structural relevance: the individual or community invested primarily in bonding capital without bridging capital is, in HAPHE terms, concentrated in a single SEA category with limited genuinely independent investment. The post-industrial community collapse documented in former mining communities following closure demonstrates this at population scale: bonding-capital-rich communities experienced social capital collapse disproportionate to economically equivalent communities with higher bridging capital, because the apparent richness of the bonding portfolio masked total systemic correlation back to a single industrial source.

3. The HAPHE Framework: Core Theoretical Architecture

3.1 The Investment Resource: $T(T+A)$

The fundamental resource within the HAPHE framework is $T(T+A)$ — Time (Thought + Activity). $T(T+A)$ is explicitly distinguished from clock time. It represents the density of psychological investment in a given SEA: the degree to which a person's cognitive orientation, attentional focus and organised behavioural activity are directed toward that asset when no external demand governs them. $T(T+A)$ is formally expressed as an algebraic relationship in which chronological Time (T) functions as a multiplier of the sum of cognitive load (Thought) and behavioural output (Activity).

$T(T+A)$ is always proportional to the life lived so far. This is a theoretically significant property: the same duration of investment represents a greater fraction of a nine-year-old's total psychological resource than of a fifty-year-old's, because the nine-year-old's total accumulated $T(T+A)$ is substantially

smaller. Early concentrated investments are therefore proposed to be structurally more significant in shaping portfolio architecture — and more resistant to redistribution — than equivalent investments made in later life. $T(T+A)$ is treated as a finite resource: what is allocated to any given SEA is simultaneously and unavoidably withheld from all others.

3.2 The Asset Taxonomy: Ten SEA Categories

The HAPHE framework proposes a taxonomy of ten Social Emotional Asset categories across which $T(T+A)$ is distributed. Each category represents a distinct domain of human investment from which qualitatively different psychological returns are derived. The ten categories are:

- Significant Other — the primary romantic or intimate partnership
- Family-Like Group — a non-biological social unit that performs the psychological functions of family: belonging, mutual obligation, identity confirmation and the particular security of being known within a bounded social world
- Family — the biological or legal family system and its associated obligations and returns
- Career and Vocation — the professional role, occupational identity, calling or vocational purpose
- Faith and Belief — the spiritual, religious or ideological framework through which meaning is organised and existential orientation maintained
- Physical Identity and Sport — the bodily self and its capacities, including athletic practice, physical performance and somatic identity
- Creative and Intellectual Pursuits — domain-specific creative, scholarly or intellectual engagement pursued as a primary source of identity or meaning
- Community and Belonging — geographically, culturally or institutionally grounded community membership generating returns of collective identity and civic belonging
- Fans and Following — investment in a parasocial or public-facing relationship or following, whether as consumer of another's public identity or as producer of a public-facing identity of one's own
- Dream and Aspiration — a future-oriented goal, aspiration or projected identity around which current investment is organised and present sacrifice is justified

This taxonomy is proposed on the basis of patterns observed in the practice-based inquiry described in Section 4. It is not claimed to be exhaustive or culturally universal; the framework anticipates that formal empirical investigation will refine, extend or reorganise these categories. What the taxonomy provides is a structured framework for mapping the complete distribution of $T(T+A)$ across the portfolio of a given individual or population at a given point in time. The categories are proposed to carry differing levels of systemic volatility, a property addressed formally in Section 3.6.

3.3 The Concentration Metric: CEI

The Concentration Exposure Index (CEI) is the primary quantitative diagnostic metric of the HAPHE framework. It is derived from the HAPHE Audit's TTA Allocation Assessment — a structured instrument through which participants distribute 100 units of a fixed psychological currency across the ten SEA categories in proportion to their actual subjective investment. The resulting distribution is analysed to produce a CEI score ranging from 0.10 to 1.00. The CEI measures structural vulnerability at the portfolio level: not the quality or depth of any individual investment, but the degree to which the portfolio as a whole is exposed to single-asset disruption risk.

The HAPHE framework proposes a provisional typology of three portfolio configurations based on the CEI distribution observed in preliminary inquiry. These thresholds are offered as provisional and heuristic rather than diagnostically precise and require formal empirical validation:

Hedged Portfolio (CEI < 0.40, provisional): T(T+A) is distributed across multiple genuinely independent SEA categories. Asset Rupture in any single category is absorbed by the remaining structure without Identity Liquidation.

Concentrated Risk Portfolio (CEI 0.40—0.70, provisional): A dominant primary asset exists. Some independent secondary assets are present but insufficiently robust to absorb primary-asset disruption fully.

Stronghold Portfolio (CEI > 0.70, provisional): The primary asset carries the overwhelming majority of T(T+A). Primary-Asset Rupture produces Identity Liquidation because the entire portfolio architecture collapses simultaneously.

A critical distinction introduced by the framework is between apparent and genuine diversification — what the HAPHE framework terms false diversification. Participants who report investment across multiple SEA categories may, on follow-up assessment using the HAPHE Audit's false diversification diagnostic, be found to be invested in assets correlated back to a single primary source. The false diversification diagnostic is a proprietary component of the HAPHE Audit.

3.4 The Investment Mechanism: Opportunity Cost and Concentration Dynamics

The mechanism by which portfolio concentration increases over time — without deliberate strategy and often without conscious awareness — is grounded in the economic principle of opportunity cost as applied to the finite resource of T(T+A).

At any given moment the individual's total $T(T+A)$ is fixed. The allocation of $T(T+A)$ toward the primary SEA is not a neutral act with respect to all other assets: it represents the simultaneous withdrawal of that $T(T+A)$ from every other SEA category. The returns generated by the primary asset — belonging, identity confirmation, purpose, pleasure, prestige — justify its continuation and expansion. Each positive return from the primary asset provides additional motivation to direct further $T(T+A)$ toward it. The opportunity cost of this continued investment is the progressive diminishment of all secondary and tertiary SEA categories.

This dynamic operates incrementally and without continuous self-audit. Because individuals do not evaluate their portfolio distribution on a continuous basis — the HAPHE framework proposes the periodic self-audit as the primary corrective mechanism, and the HAPHE Audit as the instrument that facilitates it — the reallocation occurs invisibly between audit points. The primary asset grows not only because more $T(T+A)$ flows toward it but because less flows toward everything else. Secondary assets do not merely receive less investment: they atrophy. The CEI rises not through a single decision but through the compound effect of opportunity cost operating unremarked across hundreds of daily $T(T+A)$ allocation decisions.

3.5 Happiness Blindness: The Suppression of the Self-Audit

Happiness blindness is the specific cognitive and affective mechanism by which concentrated portfolios become invisible to their holders during periods of high primary-asset performance. The construct is grounded in the well-established behavioural finance observation that investor confidence increases during bull markets precisely because performance suppresses the perception of structural risk (Kahneman, 2011; Shiller, 2000). The HAPHE framework proposes a structurally equivalent dynamic in social investment.

Critically, happiness blindness in the HAPHE framework is not limited to the emotional state of happiness in its conventional sense. The framework proposes that any source of high psychological return from the primary SEA is capable of producing the blindness state. The complete taxonomy of blindness-inducing returns includes: subjective joy and positive emotional experience; prestige, social standing and the recognition of others; sexual pleasure and intimate belonging; vocational purpose and the satisfaction of meaningful contribution; identity confirmation — the experience of being fully known and chosen; mastery and the satisfaction of expertise within a domain; and the particular security of a social world organised around shared values or shared struggle. Any of these returns — singly or in combination — can produce the blindness state by suppressing the motivation to examine the portfolio.

This is why the HAPHE framework proposes that the strongest concentrations are found not in the most deprived or distressed lives but in the most richly rewarding ones. The self-assessment gap finding in the preliminary inquiry — in which Stronghold-level participants consistently rated themselves as more diversified than lower-CEI participants — is precisely consistent with this theoretical prediction.

3.6 Differential Asset Volatility: The $V\sigma$ Coefficient and Risk-Adjusted CEI

The CEI measures the degree of concentration in the portfolio. It does not, in its base form, account for the differential structural instability of different SEA categories. The HAPHE framework addresses this through the Volatility Coefficient ($V\sigma$) — a proprietary weighting system that modifies the interpretation of the CEI score to produce a Risk-Adjusted Concentration Exposure Index. Different SEA categories are proposed to carry structurally different volatility characteristics: the Significant Other Asset Class carries high systemic volatility as it is co-held with another agent whose decisions are outside the investor's control; the Faith and Belief Asset Class carries relatively low volatility as its returns are substantially internally derived.

The Risk-Adjusted CEI is formally expressed as the product of the base CEI and the $V\sigma$ of the primary SEA category, producing a two-dimensional diagnostic that captures both the degree of concentration and the structural dangerousness of the asset class in which that concentration resides.

The specific $V\sigma$ values assigned to each of the ten SEA categories, and the methodology by which they are derived, constitute proprietary intellectual property of HAPHE and are available through the HAPHE Audit. The Risk-Adjusted CEI is named and defined here to establish prior theoretical claim to the construct; its full operationalisation is available through HAPHE directly.

3.7 The HAPHE Audit: Three-Level Portfolio Diagnostic

The HAPHE Audit is the proprietary instrument through which the framework's constructs are operationalised in practice. The Audit delivers a three-level diagnostic, each level building on the previous, across three distinct deployment contexts: individual self-audit, third-party audit administered by a trained Hafé, and population audit producing institutional portfolio intelligence. All three deployment contexts and all three diagnostic levels constitute proprietary intellectual property of HAPHE.

- Level One — Base CEI: T(T+A) distribution assessed across ten SEA categories. Concentration Exposure Index calculated. Portfolio typology provisionally assigned.
- Level Two — False Diversification Diagnostic: Follow-up assessment distinguishing genuine portfolio breadth from apparent breadth masking underlying single-asset concentration. Adjusted CEI calculated where false diversification is identified.

- Level Three — Risk-Adjusted CEI and Full Portfolio Map: Base or adjusted CEI modified by the $V\sigma$ of the primary Asset Class. The Asset Robustness Index (ARI) — a proprietary measure of internal diversification within the primary SEA — is calculated at this level. Full portfolio map produced. This constitutes the most detailed layer of the HAPHE Audit and is available through HAPHE directly.

4. Preliminary Cross-Demographic Evidence

The HAPHE framework is grounded in three bodies of preliminary observational and practice-based evidence spanning two demographically distinct populations — infants and young adults — and two distinct developmental stages. The evidence base is presented in developmental sequence, beginning with the ten-infant observational study as the foundational evidence that portfolio concentration dynamics operate prior to language, culture or deliberate choice, before proceeding to the student population inquiry which confirms the mechanism at scale in a general young adult population.

The cross-demographic convergence of findings is proposed as the primary empirical contribution of this preliminary evidence base: the same structural dynamic — diversified portfolios demonstrating systemic resilience to Asset Rupture; concentrated portfolios producing disproportionate and destabilising consequences — is observed in both populations despite their radical developmental difference. This convergence is consistent with the theoretical proposition that portfolio concentration is not a learned or culturally acquired pattern but a structural default that operates from the earliest stages of human development.

All three evidence bodies are characterised throughout as preliminary, observational and practice-based inquiry rather than formally conducted empirical research, and are positioned explicitly as theory-generative rather than theory-confirming. They are offered as sufficient to establish the plausibility and internal consistency of the framework's core theoretical claims and as the basis for the formal empirical programme proposed in Section 7.

4.1 The HAPHE Ten-Infant Observational Study

4.1.1 Context and Design

The HAPHE Ten-Infant Observational Study was conducted within a maternity ward setting in the East Midlands of England in 2014. Twenty-five mother-infant dyads were recruited through opportunity sampling with full maternal consent. The study was conducted as observational inquiry: mothers were not informed of the specific research focus, which was framed in terms of infant feeding preferences — a framing involving no deception ethically significant by the standards applicable to

low-risk observational research with adult participants, as it involved no intervention with infants and no misleading of participants regarding any procedure affecting their wellbeing. Seventeen of twenty-five dyads completed the full follow-up protocol across six structured telephone contact points. Outcome data reflects retrospective maternal estimates and is treated as approximation rather than precise measurement.

4.1.2 Findings

Infants were classified into Group A (n=7, single primary comfort object) and Group B (n=10, multiple comfort objects in rotation) based on maternal reports by the third contact point. When the primary object was unavailable, Group A infants showed estimated average distress durations of 63.4 minutes per episode. Group B infants showed estimated average distress durations of 10.8 minutes under comparable conditions — an 83% reduction with no overlap between groups on this measure. Replacement objects identical to the original were consistently rejected by Group A infants; Group B infants accepted replacements without notable distress.

These findings establish the first empirical baseline of the HAPHE framework: that diversified comfort object portfolios in infants produce significantly reduced acute withdrawal responses to Asset Rupture compared to concentrated single-object portfolios. This pattern is observed prior to language, culture or deliberate choice, establishing that portfolio concentration dynamics are not a socially acquired disposition but a structural default present from the earliest stages of human development. The 83% reduction in distress duration and the complete absence of group overlap are consistent with the theoretical proposition that portfolio architecture — rather than the intrinsic significance of the disrupted object — determines the magnitude of the rupture response.

4.1.3 Methodological Note

The study was conducted as observational practice-based inquiry without formal ethics committee oversight. The authors acknowledge this as a limitation and note formal ethics committee oversight as a prerequisite for empirical replication. The study is offered as preliminary, theory-generative evidence consistent with the framework's structural propositions and explicitly not as their empirical confirmation. The small sample size, reliance on retrospective maternal recall and absence of direct infant observation are acknowledged as significant methodological constraints. Formal empirical replication with appropriate ethics oversight, sample size and measurement precision is proposed as a first priority in the research programme described in Section 7.

4.2 The HAPHE Student Population Inquiry: 823 Young Adults

4.2.1 Context and Design

The HAPHE Student Population Inquiry was conducted across three UK universities as practice-based inquiry commissioned by HAPHE. 823 young adults (age range 18—26) completed the HAPHE Audit's TTA Allocation Assessment — a structured self-report instrument distributing 100 units of emotional currency across the ten SEA categories. Follow-up assessment applied the false diversification diagnostic to a subset of participants. The study was conducted as commissioned practice-based inquiry rather than formally ethically approved academic research; participants provided informed consent and data anonymisation was applied throughout.

4.2.2 Portfolio Distribution Findings

The CEI distribution across 823 participants produced the following provisional typology findings: Hedged Portfolio (CEI < 0.40): n=124, 15.1%; Concentrated Risk (CEI 0.40—0.70): n=369, 44.8%; Stronghold (CEI > 0.70): n=330, 40.1%. Mean CEI across all participants: 0.654. Several participants recorded CEI = 1.00. These figures indicate that the average participant invested approximately two thirds of their total TTA allocation in a single asset class, and that four in ten participants were operating at Stronghold-level concentration. Critically, these participants were drawn from a non-clinical general university population, indicating that high-level SEA concentration is not a feature of vulnerable or atypical subgroups but a prevalent structural characteristic of the general young adult population.

4.2.3 The Self-Assessment Gap and Happiness Blindness

Stronghold-level participants systematically rated their own portfolios as more diversified than both Concentrated Risk and Hedged participants. This self-assessment gap is the empirical signature of happiness blindness: those for whom portfolio examination is most consequential are precisely those for whom the examination is most suppressed by the high returns their primary asset is generating. The finding is consistent with the theoretical prediction that happiness blindness is most acute in those for whom it is most consequential.

4.2.4 The False Diversification Finding

Application of the false diversification diagnostic revealed that a significant proportion of apparently diversified portfolios were structured around a single primary asset with correlated secondary investments. The most prevalent pattern was the social group — reported by participants as representing multiple independent relationships — which on follow-up was found to constitute a single Family-Like Group SEA. Apparent social diversity was a property of the group's internal complexity rather than genuine portfolio breadth across independent asset classes. This finding has direct implications for conventional social support assessment methodologies: counting social connections does not distinguish

genuinely diversified investment from concentrated investment in a single social unit with complex internal structure.

4.2.5 The Rebuilt-Into-Concentration Finding

Participants who had experienced Asset Rupture during the inquiry period showed, on follow-up, a significant tendency to rebuild into the same CEI configuration — a new primary SEA occupying the same dominant position. This finding is consistent with the theoretical proposition that portfolio concentration is a structural default that does not change as a result of Asset Rupture alone, in the absence of an explicit framework for understanding and redesigning the portfolio architecture.

4.3 The Private Student Accommodation Pilot

129 participants in private student accommodation were exposed to a 60—90 second video intervention introducing the concept of T(T+A) concentration, followed immediately by a self-assessment. Pre-intervention: 100% felt secure or had not considered the question; 84.5% described their investment pattern as positive dedication. Post-intervention: 45.7% self-assessed as Stronghold; 71.3% acknowledged that Asset Rupture in their primary SEA would produce total portfolio collapse. This shift — from 0% to over 80% self-identification as concentrated or Stronghold within under two minutes, in a naturalistic setting without clinical infrastructure — is consistent with the theoretical proposition that happiness blindness is interruptible through brief focused structural framing. These preliminary findings require formal validation through controlled trial design with appropriate follow-up periods.

5. Methodological Considerations and Ethical Positioning

5.1 Status of the Evidence Base

The three bodies of evidence presented in Section 4 are characterised throughout as preliminary, observational and practice-based inquiry. They are positioned as theory-generative rather than empirically confirmatory: sufficient to establish the plausibility and internal consistency of the framework's core theoretical claims and to define the formal empirical programme required for their validation. Publishing a theoretical framework grounded in preliminary practice-based evidence with explicit acknowledgement of limitations and an explicit invitation for formal empirical testing is a well-established and legitimate academic practice with significant precedent in psychology, sociology and applied social science.

5.2 The Infant Study: Ethical Positioning

The HAPHE Ten-Infant Observational Study was conducted as low-risk observational inquiry with full maternal consent. No intervention was made with infants. The framing of the study in terms of infant feeding preferences involved no deception ethically significant by the standards applicable to this category of research, as it concerned no procedure affecting participant wellbeing. Formal ethics committee oversight is acknowledged as a prerequisite for formal empirical replication and is incorporated into the proposed research design in Section 7.

5.3 The HAPHE Audit Instrument

The TTA Allocation Assessment and all associated HAPHE Audit instruments are practice-based instruments whose formal psychometric properties — internal consistency, test-retest reliability, construct validity and convergent validity — have not yet been formally established. These properties are identified as the highest priority for the formal empirical programme. The full instrument specifications — including item wording, scoring procedures, administration protocols and all three deployment context specifications — constitute proprietary intellectual property of HAPHE and are available through HAPHE directly.

5.4 Clinical Scope and Future Applications

The HAPHE framework is currently positioned as a non-clinical upstream intervention, operating prior to the clinical threshold and addressing the structural architecture of the portfolio before Asset Rupture has produced clinical presentations. This positioning reflects the current stage of the framework's empirical development rather than a permanent boundary on its scope. HAPHE reserves the right to develop clinically validated applications of the framework and its instruments as the formal empirical programme advances and peer-reviewed evidence accumulates to support clinical deployment.

6. Theoretical Applications Across Institutional Population Domains

The HAPHE framework proposes specific theoretical applications across six institutional population domains. These applications are established here as prior theoretical claims, creating a documented record of HAPHE's theoretical propositions with respect to each population before formal empirical investigation in partnership with academic institutions begins. The formal empirical findings that subsequently emerge from these partnerships will constitute validation of prior HAPHE theoretical claims rather than independent discoveries. The population domains described below represent primary illustrative applications of the HAPHE framework; the framework's constructs and instruments are proposed as applicable across any human context in which Social Emotional Asset concentration and its

consequences are empirically investigable, and HAPHE reserves theoretical prior claim to all such applications.

6.1 Mental Health Prevention — The Unhedged Transition

Primary SEA domain: Career and Vocation; Significant Other; Community and Belonging (varying by population subgroup)

Proposed mechanism: Individuals investing the majority of $T(T+A)$ in a single vocational, relational or community SEA accumulate a Stronghold configuration through the opportunity cost mechanism. At the point of transition — redundancy, retirement, relationship ending, bereavement — Asset Rupture in the primary SEA triggers Identity Liquidation because no parallel architecture exists to absorb the systemic shock. The presentation that reaches the health system is the downstream consequence of this structural collapse.

HAPHE prior claim: The HAPHE framework proposes that a significant proportion of health system presentations following major life transitions represent Asset Rupture events in highly concentrated portfolios rather than, or in addition to, clinical psychopathological conditions in the conventional diagnostic sense. Upstream CEI assessment at points of transition is proposed as a prevention-focused intervention addressing the portfolio architecture that the clinical system is not positioned to examine. HAPHE claims prior theoretical right to this application.

Scale of the problem: Health system spending on mental health services in England is planned to reach £20.6 billion in 2025/26 (NHS England, 2025), with the mental health waiting list estimated at 1.7 million people (British Medical Association, 2025). Comparable expenditure burdens are documented across analogous health systems internationally. The upstream HAPHE intervention is proposed to address a structural proportion of this demand before it reaches the clinical threshold.

6.2 Criminal Justice and Reintegration — The Rebuilt Concentration

Primary SEA domain: Family-Like Group (primary); Significant Other; Community and Belonging

Proposed mechanism: For many individuals in contact with the criminal justice system, the Family-Like Group SEA constitutes the primary and often only independently functioning SEA in the portfolio. The custodial sentence disrupts this concentration without addressing its architecture. On release, the same primary SEA offers the same returns as it did before the sentence, and the opportunity cost mechanism directs $T(T+A)$ back toward it in the absence of any parallel architecture.

HAPHE prior claim: The HAPHE framework proposes that reconviction rates are substantially determined by the CEI at the point of release and the absence of genuinely independent secondary SEA categories. Conventional risk assessment tools measure whether protective factors are present; they do not assess whether those factors are genuinely independent of each other or correlated back to the same primary SEA. HAPHE claims prior theoretical right to the application of CEI assessment in pre-release planning as a structural complement to existing risk assessment.

Scale of the problem: Reoffending in England and Wales is estimated to cost taxpayers £22.7 billion per year adjusted to 2024/25 prices (HM Government, 2025), with a proven reoffending rate of 28.3% as of the most recent published data (Ministry of Justice, 2025). Comparable reoffending cost burdens are documented across analogous criminal justice systems internationally. An upstream portfolio intervention addressing the structural architecture of concentration at the pre-release stage is proposed to reduce a structural proportion of this cost.

6.3 Leaving Care — The Disrupted Portfolio

Primary SEA domain: Dream and Aspiration (primary); Family-Like Group (placement-based); Career and Vocation

Proposed mechanism: Children in the care system experience repeated involuntary Asset Ruptures as placement moves interrupt the deepening of investments that stability makes possible. The structural consequence is a portfolio depleted of all but one remaining fixed point — typically a vocational dream, a remaining Family-Like Group or a single surviving key worker relationship. At the point of transition at age eighteen, this concentration is exposed by the simultaneous withdrawal of placement structure and formal care support.

HAPHE prior claim: The HAPHE framework proposes that care leavers' overrepresentation in downstream health, criminal justice and homelessness systems reflects the structural vulnerability of severely concentrated portfolios meeting transition Asset Rupture in the absence of parallel architecture. HAPHE claims prior theoretical right to the application of CEI assessment in leaving care pathway planning from early adolescence, as the point at which T(T+A) can still be deliberately directed toward genuinely independent secondary SEA categories.

Scale of the problem: In 2023/24 there were 50,670 care leavers in England aged 17 to 21 (Department for Education, 2024). The National Audit Office has identified poorer life outcomes for care leavers as a longstanding problem with a likely high public cost across mental health, employment, education, policing and justice services (National Audit Office, 2015, findings confirmed in subsequent annual reports). The downstream cost per care leaver who enters multiple specialist systems simultaneously is estimated to run to hundreds of thousands of pounds across service budgets. Comparable burdens are documented internationally.

6.4 NEET Young People — The Aspirational Stronghold

Primary SEA domain: Dream and Aspiration (primary); Career and Vocation; Family-Like Group

Proposed mechanism: NEET young people frequently present with portfolios organised entirely around a single Dream and Aspiration SEA that has encountered structural resistance — a vocational ambition that the education system, the labour market or circumstance has made inaccessible. The concentration in the aspirational asset, combined with the absence of parallel independently rooted assets, produces a Stronghold configuration that resists conventional employment and training interventions because those interventions address the surface of disengagement rather than the portfolio architecture underneath it.

HAPHE prior claim: The HAPHE framework proposes that NEET status in a significant proportion of cases reflects the structural collapse of a concentrated aspirational portfolio meeting the resistance of an inaccessible primary asset, rather than a deficit of motivation or capability. HAPHE claims prior theoretical right to the application of CEI assessment in NEET support pathways as an upstream structural intervention prior to, or alongside, conventional employment and training support.

Scale of the problem: In England, approximately 13% of young people aged 16 to 24 were classified as NEET in 2024 (Office for National Statistics, 2025), with significantly higher rates in former industrial and coalfield geographies. The economic cost of NEET status in lost productivity and public service demand has been estimated at £56,000 per person over a lifetime by HM Treasury analysis. Comparable NEET burden patterns are documented across OECD member states.

6.5 Military Transition — The Institutionally Produced Stronghold

Primary SEA domain: Career and Vocation (military service); Physical Identity and Sport; Community and Belonging (regimental)

Proposed mechanism: Military service is proposed as an institutional context that systematically and functionally produces Stronghold-level portfolio concentration. The operational effectiveness of military service requires total T(T+A) commitment to the service context: identity, daily structure, physical self, social world, purpose and belonging are simultaneously organised around a single institutional primary

SEA. This is not a pathological outcome but the intended consequence of the service's cultural and training infrastructure. At the point of discharge the concentration is structurally acute and is not addressed by existing resettlement programmes, which attend to the practical surface of transition without examining the portfolio architecture underneath it.

HAPHE prior claim: HAPHE claims prior theoretical right to the application of CEI assessment as a component of mid-service welfare conversations, proposed as beginning at least twelve months before anticipated discharge, as the intervention point at which T(T+A) can still be directed toward genuinely independent secondary SEA categories before the service context is removed.

Scale of the problem: Veterans are overrepresented in homeless, substance-dependent and crisis mental health populations relative to the general population (Ministry of Defence, 2024). The NHS directly commissions health services for veterans as a designated population with distinct needs (NHS England, 2025). The annual cost of veteran mental health provision and associated public service demand represents a significant and growing budget pressure across health and social care systems in the United Kingdom and comparable allied nations.

6.6 University Student Services — The First-Year Concentration

Primary SEA domain: Family-Like Group (primary, frequently misidentified as multiple independent relationships)

Proposed mechanism: University entry constitutes a structural T(T+A) reallocation event. Students arrive in a new environment with a depleted existing portfolio and a strong structural incentive to invest rapidly and intensively in any available source of belonging. The social group formed in the first weeks — the house, the course cohort, the society — frequently acquires Family-Like Group characteristics within a single term, attracting the full concentration of the student's available T(T+A). This concentration is misidentified by both the student and the pastoral system as healthy social integration. The false diversification pattern — five relationships counted as independent that are structurally one Family-Like Group SEA — is the most prevalent finding in the preliminary student inquiry.

HAPHE prior claim: The HAPHE framework proposes that second-year withdrawal characteristically follows the social reorganisation of the primary Family-Like Group SEA rather than academic failure, and that the concentrated portfolio architecture is established in the first six weeks of the first year — before any pastoral or wellbeing intervention has been triggered. HAPHE claims prior theoretical right to the application of CEI assessment as a component of university induction, prior to the first-term concentration consolidating into a Stronghold configuration.

Scale of the problem: Second-year student withdrawal is the peak risk period across UK higher education institutions. The institutional cost of a single student withdrawal — encompassing tuition fee loss, pastoral resource consumption and downstream support requirements — typically exceeds £20,000 per student at current fee rates. At an institution of 20,000 students, a one percentage point improvement in second-year retention produces savings substantially exceeding the cost of a HAPHE induction intervention delivered to the full first-year cohort. Comparable retention cost pressures are documented across higher education systems internationally.

6.7 Schools and Colleges — The Pre-University Concentration

Primary SEA domain: Family-Like Group (peer group, primary); Dream and Aspiration; Career and Vocation

Proposed mechanism: The concentrated portfolio architecture documented in university students in the preliminary inquiry does not originate at university entry. It is established in secondary school and college settings, where peer group formation, academic identity and vocational aspiration interact to produce Stronghold-level configurations in a significant proportion of young people before they reach university or the labour market. The school and college setting is therefore the upstream intervention point for the university and NEET concentrations that follow. The Family-Like Group SEA formed in

secondary school carries the same false diversification characteristics observed in university populations: multiple peer relationships that resolve, on follow-up, into a single bounded social group.

HAPHE prior claim: The HAPHE framework proposes that CEI assessment integrated into the school and college transition curriculum — at ages 14 to 16, before the concentration has consolidated into a Stronghold configuration — represents the earliest available institutional intervention point in the pipeline of concentrated portfolios that subsequently present in university, NEET, criminal justice and mental health systems. HAPHE claims prior theoretical right to this application across all educational settings serving young people aged 11 to 18.

Scale of the problem: Children's social care spending by English local authorities is planned to increase by £1 billion in real terms in 2025/26 (Ministry of Housing, Communities and Local Government, 2025). The overrepresentation of school-excluded young people, those with persistent absence and those with special educational needs in subsequent NEET, criminal justice and care leaver populations suggests a common structural upstream factor that conventional educational intervention does not address. HAPHE proposes the portfolio audit as the structural diagnostic that identifies that factor before the institutional pipeline begins.

7. Proposed Directions for Formal Empirical Investigation

The HAPHE framework invites formal empirical investigation across the following priority areas. This programme of research is actively sought through university and institutional research partnerships. The framework's intellectual property — including the HAPHE Audit, the TTA Allocation Assessment, the CEI methodology, the false diversification diagnostic, the $V\sigma$ system and the Asset Robustness Index — remains the proprietary asset of HAPHE in all partnership arrangements. Formal data sharing and intellectual property agreements specifying HAPHE's retained ownership of all framework constructs and instruments are a prerequisite for all research partnerships. All empirical findings produced by HAPHE research partnership institutions constitute validation of prior HAPHE theoretical claims as established in Section 6 and Appendix C.

7.1 Psychometric Development of the HAPHE Audit Instruments

Priority one is the formal psychometric development of the TTA Allocation Assessment and the CEI as a derived metric: item analysis and refinement; test-retest reliability; internal consistency; construct validity through comparison with established wellbeing and social support measures; and convergent validity through comparison with attachment security, resilience and social capital constructs. This work requires a university partner with psychometrics expertise and formal ethics committee approval.

7.2 Longitudinal Study: CEI as a Predictor of Transition Outcomes

Priority two is a longitudinal study examining CEI at baseline as a predictor of subsequent outcomes across multiple transition types — university withdrawal, leaving care, criminal justice

reintegration, military discharge, redundancy and retirement. This study would formally test the framework's primary predictive claim: that CEI at baseline predicts adverse outcomes at Asset Rupture independently of the quality of individual investments and the presence of conventional protective factors.

7.3 Randomised Controlled Trial: Brief Portfolio Assessment Intervention

Priority three is a randomised controlled trial of the brief portfolio assessment intervention demonstrated in the student accommodation pilot, with a waitlist control group and minimum six-month follow-up. Outcome measures: self-reported wellbeing, portfolio diversity at follow-up and rates of help-seeking at Asset Rupture events.

7.4 Population-Level Investigation: Former Industrial Communities

Priority four is an investigation of the relationship between community-level portfolio concentration — as evidenced in former coalfield and post-industrial communities — and current population-level health and social outcomes. Published mortality data showing elevated deaths of despair in former coalfield communities after adjustment for deprivation (Office for National Statistics, 2026) provides a naturalistic evidence base for the community-scale application of the framework's structural propositions.

7.5 Single-SEA Domain Studies: Institutional Partnership Programme

Priority five is a programme of applied domain studies in which individual university partners examine the HAPHE framework's theoretical claims within a single SEA category applied to a specific institutional population. Studies are proposed across the following domain-population combinations, among others: Family-Like Group concentration in leaving care populations; Dream and Aspiration concentration in NEET young people; Career and Vocation concentration in military transition; Family-Like Group and Significant Other concentration in criminal justice reintegration; Family-Like Group false diversification in university and secondary school populations. Each study is conducted under a formal HAPHE research partnership agreement specifying the scope of the inquiry, the data ownership arrangements and the intellectual property protections applicable to the framework and its instruments. All findings constitute validation of HAPHE prior theoretical claims as documented in Section 6 and Appendix C of this paper.

8. Conclusion

The Human Asset Portfolio Hedge Engineering framework establishes a formal empirical translation of financial portfolio theory into systemic social inquiry. It proposes that the mitigation of

personal crisis — and the prevention of catastrophic Identity Liquidation — relies on the systematic diversification of Social Emotional Assets across genuinely independent categories, and that this claim is grounded in the mathematical mechanics of hedging and diversification rather than in metaphor or analogy.

The preliminary cross-demographic evidence base — spanning infant comfort object portfolios and young adult social-emotional portfolios — demonstrates a consistent structural dynamic across two developmentally distinct populations: diversified portfolios produce systemic resilience to Asset Rupture; concentrated portfolios produce Identity Liquidation. By grounding these findings in the formal language of Modern Portfolio Theory — CEI, $T(T+A)$, $V\sigma$, Risk-Adjusted CEI, Asset Rupture, false diversification — the framework moves social inquiry beyond descriptive pathology into a predictive, asset-based model that is measurable, testable and responsive to deliberate structural intervention.

The framework's theoretical claims with respect to six institutional population domains — mental health, criminal justice, leaving care, NEET, military transition, university student services, and schools and colleges — are established here as prior claims before formal empirical investigation in university partnerships begins. Each subsequent empirical finding from those partnerships will constitute a validation of HAPHE's prior theoretical propositions as documented in this paper and in Appendix C.

The complete HAPHE Audit — including the TTA Allocation Assessment, the false diversification diagnostic, the $V\sigma$ coefficient system and the Asset Robustness Index — and all three deployment contexts — individual self-audit, third-party audit and population audit — constitute proprietary intellectual property of HAPHE and are available through HAPHE directly. The formal empirical programme proposed in Section 7 is the mechanism through which the evidence base is built in collaboration with academic partners committed to building the structural resilience of individuals, communities and institutional populations.

The framework's core proposition is simple and its implications are substantial: the architecture of a life determines what holds when any single part of it is tested. That architecture can be examined. It can be measured. It can be built differently. And it can be built differently before the test arrives rather than only in its aftermath.

References

Note: References below are cited in the theoretical and contextual sections of this paper. Preliminary evidence bodies described in Sections 4 and 5 are based on practice-based inquiry commissioned by HAPHE. Cost and prevalence data cited in Section 6 are drawn from published government and institutional sources as referenced inline.

- Anderson, M. S. (2025). Assessment feedback on summative coursework: Applied Anthropology (Course Code O24P701AHZ). Oxford University Department for Continuing Education, 21 January 2025.
- Morgan, S. S. (2024). Trauma-led depression among university students: An anthropological approach beyond COVID-19. Formative and summative coursework, Applied Anthropology, Oxford University Department for Continuing Education (Course Code O24P701AHZ). Submitted 23 December 2024; assessed 21 January 2025.
- Morgan, S. S. and HAPHE Research Commission. (2026). Structural portfolio concentration across developmental stages: A cross-demographic observational study of comfort object dependency in infants and social emotional asset concentration in young adults. HAPHE Preprint, June 2026.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., and Wall, S. (1978). Patterns of Attachment: A Psychological Study of the Strange Situation. Lawrence Erlbaum Associates.
- Bowlby, J. (1969). Attachment and Loss, Vol. 1: Attachment. Basic Books.
- Bowlby, J. (1973). Attachment and Loss, Vol. 2: Separation: Anxiety and Anger. Basic Books.
- Bowlby, J. (1980). Attachment and Loss, Vol. 3: Loss: Sadness and Depression. Basic Books.
- British Medical Association. (2025). Mental health pressures data analysis. British Medical Association.
- Department for Education. (2024). Children looked after in England including adoptions, year ending 31 March 2024. Department for Education.
- HM Government. (2025). Written answer on reoffending costs in England and Wales, 31 October 2025. UK Parliament Written Questions and Answers.
- Kahneman, D. (2011). Thinking, Fast and Slow. Farrar, Straus and Giroux.
- Luthar, S. S., Cicchetti, D., and Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71(3), 543–562.
- Markowitz, H. (1952). Portfolio selection. *The Journal of Finance*, 7(1), 77–91.
- Ministry of Justice. (2025). Proven reoffending statistics, October to December 2023. Ministry of Justice Statistical Bulletin.
- Ministry of Housing, Communities and Local Government. (2025). Local authority revenue expenditure and financing England: 2025 to 2026. MHCLG.
- National Audit Office. (2015). Care leavers’ transition to adulthood. National Audit Office.
- NHS England. (2025). NHS Mental Health Dashboard, Quarter 1 2025/26. NHS England.
- Office for National Statistics. (2025). Young people not in education, employment or training (NEET), UK: February 2025. ONS.
- Office for National Statistics. (2026). Mortality statistics, former coalfield communities England and Wales 2015–2023. ONS.
- Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. Simon and Schuster.
- Seligman, M. E. P. (2011). *Flourish: A Visionary New Understanding of Happiness and Wellbeing*. Free Press.
- Shiller, R. J. (2000). *Irrational Exuberance*. Princeton University Press.

- Southwick, S. M. and Charney, D. S. (2012). The science of resilience: Implications for the prevention and treatment of depression. *Science*, 338(6103), 79—82.
- Ungar, M. (2012). *The Social Ecology of Resilience: A Handbook of Theory and Practice*. Springer.

Appendix A: HAPHE Proprietary Lexicon Summary

Term | Full Form | Core Definition | Root Discipline

HAPHE | Human Asset Portfolio Hedge Engineering | Macro-system architecture applying financial risk-mitigation to human social structures | Modern Portfolio Theory / Systemic Social Inquiry

HAPHE Audit | — | Proprietary three-context assessment instrument: self-audit, third-party audit, population audit | Psychometric Assessment / Financial Risk Audit

SEA | Socio-Emotional Asset | Fundamental unit of social-emotional value in which T(T+A) is invested | Economic Asset Classification / Attachment Theory

CEI | Concentration Exposure Index | Quantitative metric of T(T+A) over-indexation in a single SEA category (range 0.10—1.00) | Credit Risk Management / Statistical Indexing

T(T+A) | Time (Thought + Activity) | Algebraic formula measuring active social investment as finite psychological resource | Algorithmic Modelling / Behavioural Sociology

$V\sigma$ | Volatility Coefficient | Proprietary weighting of differential structural instability across SEA categories | Financial Risk Theory / Market Volatility Modelling

Asset Rupture | — | Abrupt structural break of a specific SEA leaving core identity intact but temporarily unhedged | Market Disruption Theory / Trauma-Informed Care

Identity Liquidation | — | Catastrophic cascading collapse of psychological selfhood when a concentrated portfolio suffers Asset Rupture without diversified hedge | Corporate Liquidation Theory / Ego-Dissolution Theory

Happiness Blindness | — | Suppression of portfolio self-audit by high-return states from the primary SEA (joy, prestige, pleasure, purpose, mastery, identity confirmation) | Behavioural Finance / Attention Economics

Appendix B: Provisional Portfolio Typology and Preliminary Prevalence

Portfolio Type | CEI Range (Provisional) | Preliminary Prevalence (n=823) | Proposed Consequence of Asset Rupture

Hedged Portfolio | CEI < 0.40 | 15.1% (n=124) | Asset Rupture absorbed by parallel architecture. Distress appropriate to loss without Identity Liquidation.

Concentrated Risk | CEI 0.40—0.70 | 44.8% (n=369) | Asset Rupture produces significant distress. Partial parallel architecture provides incomplete but present support.

Stronghold | CEI > 0.70 | 40.1% (n=330) | Asset Rupture produces Identity Liquidation. No meaningful parallel architecture. Total portfolio collapse.

Note: All CEI typology thresholds are provisional and heuristic. They are offered as descriptive categories derived from practice-based inquiry (n=823, three UK universities) and require formal empirical validation before use as diagnostic criteria. The Risk-Adjusted CEI thresholds — which modify these ranges by the $V\sigma$ of the primary Asset Class — are available through the proprietary HAPHE Audit.

Appendix C: HAPHE Prior Theoretical Claims by Population Domain

The following table establishes HAPHE’s prior theoretical claims with respect to each institutional population domain. These claims are proposed as testable hypotheses for the formal empirical programme described in Section 7, dated June 2026. University partners working within any of these domains under HAPHE research partnership agreements will be formally validating these prior claims. All applications of HAPHE constructs, instruments or methodology to any population or context — whether or not named below — are reserved as prior HAPHE theoretical claims.

Population Domain | Primary SEA Domain | HAPHE Prior Claim (June 2026)

Mental Health (transition presentations) | Career and Vocation; Significant Other; Community and Belonging | A significant proportion of post-transition health system presentations represent Asset Rupture in Stronghold portfolios rather than primary clinical psychopathology. Upstream CEI assessment at transition points reduces downstream presentation rates.

Criminal Justice (reintegration) | Family-Like Group (primary) | CEI at point of release predicts reconviction rates independently of conventional protective factor presence. False diversification in social support assessment systematically underestimates structural vulnerability.

Leaving Care | Dream and Aspiration; Family-Like Group (placement-based) | Care leavers disproportionately present with Stronghold configurations at transition age. CEI assessment from early adolescence predicts transition outcomes.

NEET Young People | Dream and Aspiration; Career and Vocation | NEET status is associated with Stronghold concentration in Dream and Aspiration or Career and Vocation SEA categories that have encountered structural resistance, without diversified parallel assets to absorb the rupture.

Military Transition | Career and Vocation (military); Physical Identity; Community and Belonging (regimental) | Military service produces Stronghold-level CEI as a functional institutional consequence. Mid-service portfolio diversification intervention reduces Identity Liquidation at discharge.

University Students | Family-Like Group (frequently false-diversified) | 40%+ of first-year students present Stronghold CEI by end of first term. Second-year withdrawal is primarily triggered by Family-Like Group Asset Rupture rather than academic failure. First-week induction CEI assessment reduces second-year withdrawal rates.

Schools and Colleges | Family-Like Group (peer group); Dream and Aspiration | Stronghold portfolio configurations are established in secondary school and college settings before university entry or labour market engagement. CEI assessment integrated into the transition curriculum at ages 14 to 16 represents the earliest available institutional upstream intervention point.

All claims above are proposed as testable hypotheses for formal empirical investigation, established as prior HAPHE theoretical claims dated June 2026. Any empirical findings produced by HAPHE research partnership institutions will be interpreted as validation or refinement of these prior claims rather than as independent theoretical contributions. HAPHE reserves prior claim to all applications of the framework to any population or context not named above.