Core Emotion Framework (CEF): Technical Specification 8 (TS-8)

Neurodiversity Calibration Architecture

Canonical Architecture-Level Technical Document — Version 1.0 (Zenodo-Ready)

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Abstract

The Core Emotion Framework (CEF) Technical Specification 8 (TS-8) defines the canonical neurodiversity calibration architecture of the CEF. Whereas TS-1 establishes operator mechanics, TS-2 defines validation logic, TS-3 specifies computational structures, TS-4 defines simulation protocols, TS-5 governs interoperability, TS-6 defines the mapping engine, TS-7 defines structural psychopathology, and TS-11 defines the internal facet architecture of operators, TS-8 introduces the formal rules governing individual differences in emotional activation.

TS-8 does not describe personality types, clinical traits, or diagnostic categories. Instead, it defines the **structural parameters** through which individuals differ in operator thresholds, facet sensitivity, activation ranges, transition probabilities, and center-level weighting. These parameters constitute the canonical neurodiversity layer of the CEF and provide the foundation for personalized modeling, trait calibration, and individual-difference analysis.

TS-8 is the authoritative reference for neurodiversity within the CEF canon and serves as the structural foundation for TS-9 (Synthetic Affect & INTIMA) and TS-10 (Therapeutic Structural Disassembly).

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0. Document Header

Document ID: TS-8
Version: 1.0 (Canonical)

Status: Published
Canonical Position: Eighth Technical Specification in the CEF Canon
Dependencies: TS-1, TS-2, TS-3, TS-4, TS-5, TS-6, TS-7, TS-11
Governing Body: Core Emotion Framework Canonical Architecture

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1. Purpose and Scope

1.1 Purpose

TS-8 defines the structural parameters through which individuals differ in emotional activation. It specifies:

- operator-level calibration parameters
- facet-level sensitivity parameters
- center-level weighting parameters
- activation thresholds and ranges
- transition variability
- modulation responsiveness
- stability and flexibility indices

TS-8 provides the structural layer required for:

- personalized emotional modeling
- trait-level calibration
- neurodiversity-aware simulations
- individualized mapping (TS-6)
- therapeutic personalization (TS-10)

1.2 Scope

TS-8 includes:

- canonical neurodiversity parameters
- structural definitions of individual differences
- calibration rules
- constraints on trait modeling

TS-8 does **not** include:

- personality typologies
- clinical traits
- diagnostic categories
- applied therapeutic guidance
- behavioral predictions

TS-8 defines structure only.

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2. Architectural Position

2.1 Neurodiversity in the CEF

Neurodiversity refers to **stable, non-pathological individual differences** in:

- activation thresholds
- activation ranges
- facet sensitivity
- transition probabilities
- modulation responsiveness
- center weighting
- stability vs. flexibility

These differences do **not** alter operator identity, facet structure, or center boundaries.

2.2 Relationship to TS-7

TS-7 defines **dysregulation**.
TS-8 defines **variation**.

TS-7 = structural dysfunction
TS-8 = structural diversity

These must never be conflated.

2.3 Relationship to TS-11

TS-11 defines the facet architecture.
TS-8 defines how individuals vary in facet activation.

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3. Canonical Neurodiversity Parameters

TS-8 defines seven canonical parameters.

3.1 Activation Threshold (T_i)

Definition:
The minimum activation required for operator O_i to engage.

Low threshold → rapid activation
High threshold → delayed activation

Thresholds must remain within canonical bounds.

3.2 Activation Range (R_i)

Definition:
The amplitude of activation available to operator O_i.

Narrow range → subtle expression
Wide range → strong expression

Ranges must preserve operator identity.

3.3 Facet Sensitivity ($F_{(i,j)}$)

Definition:
Relative responsiveness of facet j within operator i.

High sensitivity → facet dominates activation
Low sensitivity → facet contributes minimally

Facet sensitivity must not invert facet definitions.

3.4 Transition Variability (V_{ij})

Definition:
Variability in transition probability from operator i to operator j.

High variability → flexible transitions
Low variability → rigid transitions

Variability must not violate TS-1 directionality.

3.5 Modulation Responsiveness (M_i)

Definition:
Degree to which operator O_i responds to modulation from other operators or centers.

High responsiveness → easily influenced
Low responsiveness → resistant to influence

Responsiveness must remain within canonical modulation rules.

3.6 Center Weighting ($W_{(C)}$)

Definition:
Relative influence of each center (Head, Heart, Gut) in an individual's emotional system.

High weighting → center dominates
Low weighting → center is secondary

Weighting must not collapse center identity.

3.7 Stability–Flexibility Index (SFI)

Definition:
Ratio of stability to flexibility in emotional activation patterns.

High stability → consistent patterns
High flexibility → adaptive variability

SFI must not be interpreted as pathology.

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4. Operator-Level Calibration

Each operator O_i is calibrated using:

- T_i (threshold)
- R_i (range)
- M_i (modulation responsiveness)
- V_{ij} (transition variability)
- $F_{(i,j)}$ (facet sensitivity)

Calibration must preserve:

- operator identity
- facet structure
- center boundaries

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5. Facet-Level Calibration

Facet calibration defines:

- relative contribution
- sensitivity

• activation order
• modulation susceptibility

Facet calibration must not:

• redefine facets
• merge facets
• migrate facets across operators

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6. Center-Level Calibration

Center calibration defines:

• weighting ($W_{(C)}$)
• activation balance
• cross-center influence patterns
• responsiveness to modulation

Center calibration must not:

• collapse centers
• reassign operators
• alter directionality

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7. Canonical Constraints

A neurodiversity profile is valid only if:

• operator identity is preserved
• facet definitions remain intact
• center boundaries remain intact
• no new operators or facets are introduced
• calibration parameters remain within canonical bounds
• variation is non-pathological (TS-7 handles pathology)

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8. Interoperability With Other TS Documents

TS-8 integrates with:

• TS-1 (operator identity)
• TS-2 (validation of individual differences)
• TS-3 (computational calibration)
• TS-4 (simulation of trait variation)

• TS-5 (interoperability constraints)
• TS-6 (trait-aware mapping)
• TS-7 (distinguishing variation from dysregulation)
• TS-11 (facet-level calibration)

TS-8 is a structural prerequisite for:

• TS-9 (synthetic affect)
• TS-10 (therapeutic disassembly)

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9. Canonical Status

TS-8 is the authoritative neurodiversity calibration specification of the CEF.
It defines the architecture of individual differences and is subordinate only to TS-1 and the Core Essence Document.
