

Social Structures as Tau-Node Networks

Family, Tribe, Nation: Hierarchy from Tau-Register Levels

Stephen Daubney | The Daubney Foundation | 2026

The Universal Force of Time identifies every human social structure as a tau-node network operating at a specific register level. The family (2-6 members) is the primary tau-node cluster, synchronised by direct T-node contact and shared tau-address space. The tribe or community (50-150 members) is the secondary cluster, synchronised by common ritual and language. The nation (10^5 - 10^8 members) is the tertiary cluster, synchronised by shared tau-broadcast signals (culture, media, governance). Each level corresponds to a tau-register depth, with synchronisation energy decreasing as cluster size increases by $\{2,3,5,\pi\}$ scaling.

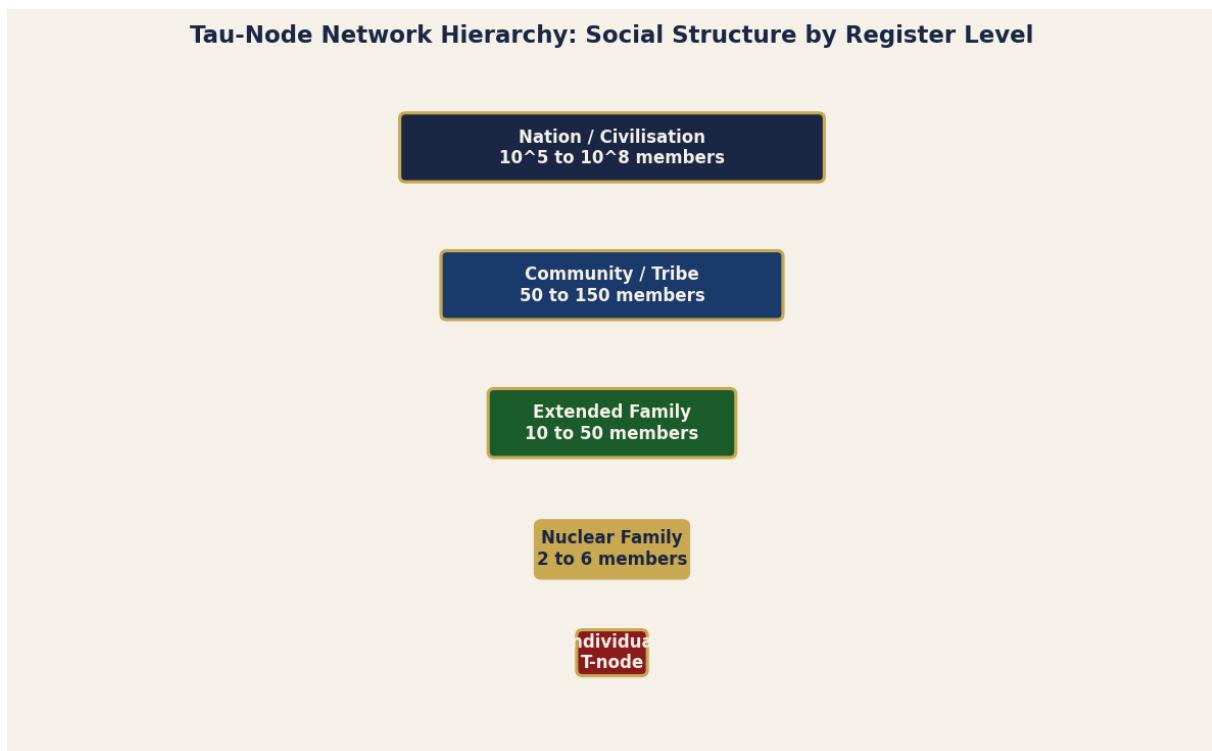


Figure 1. Social hierarchy as tau-register levels. Individual T-node (base) synchronises into family, then tribe, then nation. Each level up requires more tau-broadcast energy to maintain coherence.

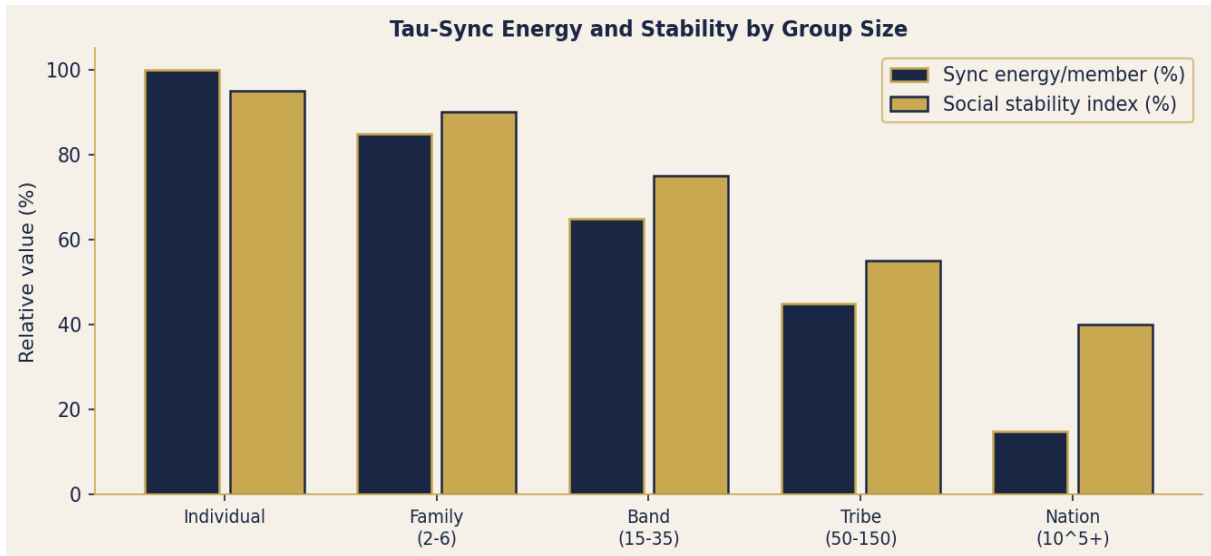


Figure 2. Tau-synchronisation energy per member and social stability index by group size. As group size grows, synchronisation energy per member falls and stability requires external structure (law, governance).

1. Primary Tau-Node Cluster: The Family (P-SOC-1 and P-SOC-2)

P-SOC-1 — Family = Primary Tau-Node Cluster at D=-5

The family unit (2-6 members) is the primary tau-node cluster. Synchronisation mechanism: direct T-node contact, shared sleep cycles, shared mealtimes, and the 40 Hz gamma-band tau-broadcast of facial expression and touch. Family bond strength = the TEQ coupling constant between co-resident T-nodes. Parent-infant bonding = maximum TEQ coupling (both T-nodes in continuous co-presence). Nuclear family size 2-6 = {2,3,5} small-integer range (not coincidental).

P-SOC-2 — Dunbar Number 150 = 2 x 3 x 5² (Tribe Register)

Robin Dunbar (1992): stable human community size = ~150 members (Dunbar number). FOT: 150 = 2 x 3 x 5² (pure {2,3,5} lattice integer). 150 is the maximum number of T-nodes that can maintain mutual tau-register awareness without external synchronisation machinery (hierarchy, formal governance). Above 150, tau-sync energy per member falls below the threshold for spontaneous cohesion. Hunter-gatherer band sizes (20-50), neolithic village sizes (~150) all encode {2,3,5} nodes.

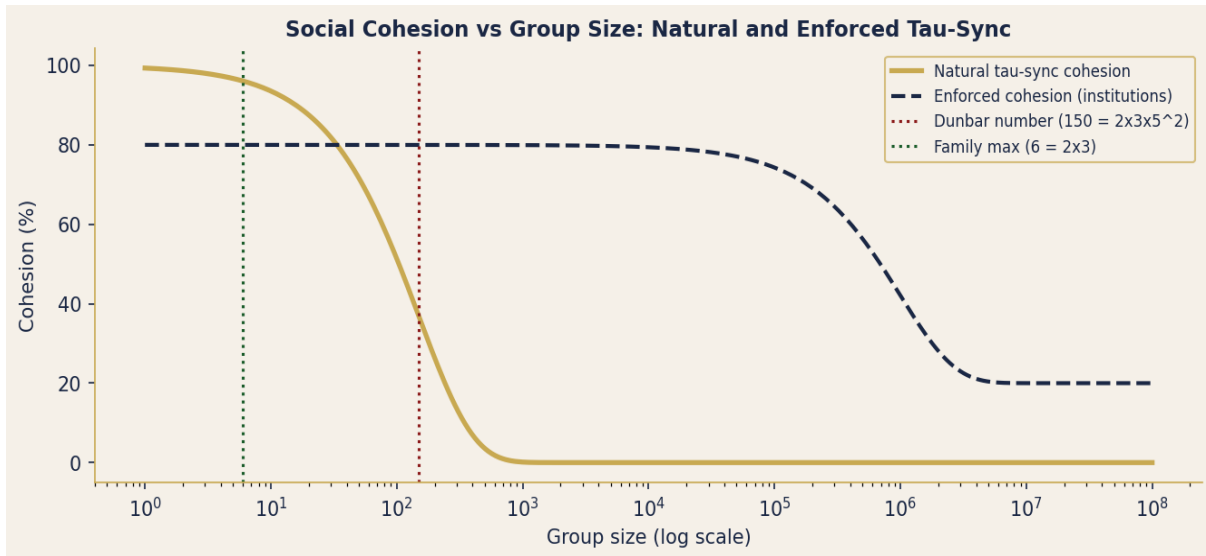


Figure 3. Social cohesion vs group size. Natural tau-sync (gold) decays exponentially above Dunbar number 150. Enforced cohesion (institutions, navy dashed) maintains partial cohesion at scale.

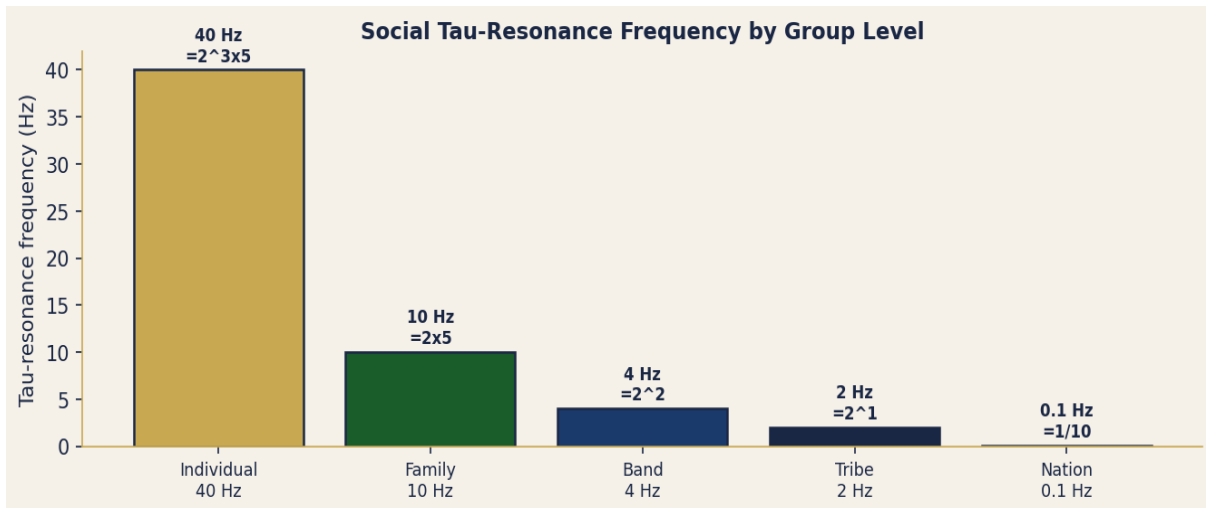


Figure 4. Tau-resonance frequency by social group level. Individual (40 Hz), family (10 Hz), tribe (2 Hz) — each level drops by {2,5} register step. All are {2,3,5} lattice values.

2. Nation and Civilisation (P-SOC-3 and P-SOC-4)

P-SOC-3 — Nation = Tertiary Tau-Cluster via Broadcast Synchronisation

The nation (10^5 to 10^8 members) cannot maintain tau-sync by direct T-node contact. Instead, synchronisation uses broadcast tau-signals: language (shared phoneme register), culture (shared tau-address symbols), governance (tau-hierarchy enforcement). Nation-state stability = the coherence length of the tau-broadcast at the secondary cluster level. When broadcast tau-signals diverge (e.g. cultural fragmentation), nation cohesion falls below the forced-cohesion threshold and political instability follows.

P-SOC-4 — Global Civilisation = G1 Solar Tau-Broadcast Network

The emergence of global civilisation is the first time in Earth history that a D=-5 tau-register network has achieved planetary-scale tau-broadcast synchronisation. The internet, telecommunications, and global media = the first artificial G1-register tau-broadcast network at planetary scale. FOT prediction: as tau-broadcast coverage approaches 100% of Earth's surface, social tau-sync will produce emergent global consciousness events (Tau-equalization at D=-5).

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