GROUNDED AUDITORY PERCEPTION AND TINNITUS DISTRESS: A PRELIMINARY N=1 CASE OBSERVATION FRAMED BY ODAM TILI (HUMAN LANGUAGE) THEORY

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Submitted as Case Report for scholarly review, not as clinical guideline

Abstract

Background: Tinnitus management increasingly recognizes the role of attention, multisensory integration, and meaning-making under degraded auditory input. Current sound therapies rely largely on acoustically arbitrary signals (white/pink noise). The Odam Tili (OT) Theory proposes that human sound-meaning mapping is non-arbitrary and somatically grounded, with distinct phono-signo-semantic codes (e.g., T/Ch for abrupt branching/breaking, S/Sh for continuous flow, Z for vibratory vitality).

Case Presentation: A 60+ year-old female with chronic tinnitus and reported hearing perception difficulty (no recent audiogram; limitation noted) engaged in a 90-day home-based self observation. Intervention was not clinical but observational: daily 10-15 min focused practice of breaking dry wooden sticks with fingers, attending jointly to acoustic transient (T/Ch), finger mechanosensation, and visual breaking action. Initially, natural water sounds (waterfall/river/sea wave, Sh/S) and bee buzzing (Z) were reported as ineffective. After initial improvement with stick-breaking, these were reported as supportive.

Observations (subjective self-report): Right ear: reported progression from minimal to full subjective perception of breaking sounds; left ear: reported ~10%

improvement in subjective loudness/perception (0-10 scale). No audiometric verification. No control, no blinding, conflict of interest (spouse of author) disclosed.

Interpretation: This single observation does not support a treatment claim. It generates a testable

hypothesis: meaning-grounded, body-coupled natural sounds may differentially reduce attentional load under degraded input and increase grounded semantic resilience compared to arbitrary noise. We propose a 90-day, low-burden pilot at a speech-language-hearing clinic (e.g., Brooklyn College SLHC) randomizing OT-grounded vs. non-grounded sounds, measuring tinnitus handicap inventory (THI), tinnitus loudness matching, attentional load, and meaning stability under perceptual uncertainty.

Keywords: Odam Tili Theory; tinnitus; sound enrichment; embodied auditory cognition; phonosemantics; grounded semantic resilience; attentional load; case report; multisensory integration

1. Introduction: The Problem of Meaning in Tinnitus

Tinnitus is typically defined as auditory perception without external source. While peripheral auditory loss is a major risk factor, central mechanisms involving attention, predictive coding, and distress networks are increasingly recognized. Sound therapy aims to reduce contrast between tinnitus and background and to reduce attentional capture. However, most sound therapy uses acoustically defined but semantically arbitrary signals. What remains under-explored is the role of semantic grounding — whether a sound that is ecologically meaningful and coupled to bodily action is processed differently from arbitrary noise under degraded input. This question is central to NYU's and CUNY's strengths in philosophy of mind, cognitive science, and audiology.

Odam Tili Theory (Kuchkarov, 2026, BEYOND ARBITRARINESS: THE SOMATIC BLUEPRINT OF THE ODAM TILI THEORY, Bulletin of Pedagogues of New Uzbekistan, indexed on Cyberleninka.ru and Google Scholar; Zenodo DOI 10.5281/zenodo.17173533) offers a first-principles framework: human language is not an arbitrary symbolic system but an ontologically grounded, embodied, and materially constrained phenomenon, emerging from interaction between biological perception, physical reality, and cognitive structuring. Meaning is not assigned post hoc by convention but generated through phonosemantic and phono-signo-semantic processes that precede abstract representation.

Within OT, three somatic codes are operationalized for empirical testing: I/M — vertical/upright (postural, effort), S/Sh — continuous flow, T/Ch — abrupt branching/breaking, Z — vibratory vitality (e.g., bee). This paper does not ask for endorsement without examination; it invites critical scholarly engagement. The theoretical claim is: deprivation from such grounded sound-meaning couplings, replaced by acoustically manipulated arbitrary signals, may increase cognitive load. This is presented as a hypothesis to be tested, not as an established etiology for tinnitus, Alzheimer's, or dementia. Any link to neurodegeneration remains highly speculative and would require longitudinal, controlled evidence far beyond this report.

From a scientific perspective, only two positions are defensible: (1) critical scholarly engagement, or (2) explicit rejection supported by theoretical argumentation. Ignoring a theory that directly targets foundational failures does not preserve rigor — it postpones accountability.

2. Case Presentation and Methods of Observation Participant: Female, 60+ years, spouse of author (conflict of interest disclosed), chronic tinnitus with reported difficulty in speech discrimination. Informed consent for anonymized reporting obtained. No recent

audiological evaluation available at time of observation — noted as major limitation. Referral to Brooklyn College Speech and Hearing Center for formal audiogram, tinnitus pitch/loudness matching, and THI recommended.

Setting: Home environment, quiet room, daily.

Stimuli (OT coding): (A) Dry wooden stick breaking (standard small wood sticks, 'rush' type, per participant description) — T/Ch code, abrupt transient, highly localizable, coupled to finger action. (B) Waterfall / river / sea wave sounds — Sh/S code, continuous. (C) Bee buzzing (recorded and live in farm setting) — Z code, vibratory.

Procedure (as described by participant): Each day, 10-15 min, participant intentionally breaks sticks with fingers, attending jointly to (i) acoustic transient of breaking, (ii) finger mechanics and haptic feedback, (iii) visual observation of breaking. Attention was explicitly directed to try to hear. Initially perception reported as minimal. Over weeks, reported perception increased to full for right ear. Water sounds (B) and bee (C) initially reported as ineffective, requiring more effort. After initial gain with (A), (B) and (C) were reported as supportive, e.g., beach water and waterfall became perceptible and calming.

Outcome tracking: Subjective self-rating 0-10 for 'how well I heard the breaking' and tinnitus loudness, handwritten diary (not standardized). No blinding, no randomization.

This is not a clinical trial. It is a self-tracked observation intended to generate hypotheses for a clinic-friendly pilot.

3. Preliminary Observations (Subjective)

Per participant self-report:

- Right ear: progression from low perception to reported full perception of stick-breaking transient by end of ~90 days (10/10 subjective).

- Left ear: reported improvement from ~3/10 to ~4/10 (~10% relative improvement).

- Temporal order: Stick-breaking with active finger engagement and focused attention produced first reported gain. Water and bee sounds only became subjectively helpful after this initial gain.

- Qualitative note: 'Willa solish e'tibor va barmoq mexanikasi harakat tana sezgisi birgalikda dastlabki natijani berdi, keyin suv, sharshara va asalari yordam bera boshlagan' (translated: focused attention plus finger mechanics and body sensation together gave initial result, then water/waterfall and bee began to help).

No objective audiometric data. No THI, no loudness matching. These are necessary next steps.

4. Discussion: Toward a Testable Pilot at SLHC

Why might a body-coupled natural transient be different from arbitrary noise? From an embodied cognition standpoint, stick-breaking integrates auditory transient (T/Ch) with efferent motor copy (finger action) and haptic feedback. This multisensory contingency may reduce prediction error and attentional load under degraded input, increasing what we term grounded semantic resilience — how quickly perception-meaning loop re-stabilizes after uncertainty.

The reported temporal order — T/Ch first, then Sh/S and Z — is consistent with OT's prediction: abrupt, high-contrast, action-coupled sounds provide a clear segmentation cue, after which continuous (Sh/S) and vibratory (Z) sounds become easier to parse as background. This aligns with literature on auditory scene analysis and attentional anchoring.

We explicitly do not claim that loss of Odam Tili causes tinnitus, Alzheimer's, or dementia as a natural defense mechanism. That formulation, while present in earlier drafts and in a Napoli post/video prepared by the author, is scientifically premature. What is testable is narrower: does exposure to semantically grounded vs.

arbitrary sounds differentially affect (a) attentional load under degraded auditory input, (b) meaning stability under perceptual uncertainty, and (c) grounded semantic resilience? These constructs can boperationalized in a low-burden, clinic-friendly pilot at SLHC alongside standard intake and tinnitus/hearing measures.

Proposed pilot (90 days): n=20 adults with chronic tinnitus, randomized to (1) OT-grounded natural sound set (stick-breaking with guided finger action + waterfall + bee) vs. (2) acoustically matched arbitrary white/pink noise, matched in duration and loudness. Primary outcomes: THI change, tinnitus loudness matching, attentional load task (dual-task cost under degraded input). Secondary: meaning stability task (how consistent is semantic judgment of ambiguous sounds under noise), grounded semantic resilience (time to re-stabilize). Deliverables: pilot dataset suitable for preprint/abstract, IRB-ready protocol for scale-up, prototype patient-facing digital module (education + guided tasks).

Should members of your faculty, after review, find the Odam Tili framework scientifically substantial, I would welcome an academic recommendation or guidance regarding research, visiting, or teaching appointment pathways aligned with this work. I have been proposed as a contributor to an October international conference session dedicated to first-order problems of language, consciousness, and artificial intelligence; CUNY/Brooklyn College participation would be particularly appropriate.

Limitations: n=1, no control, no blinding, no audiogram, conflict of interest (spouse), placebo and expectation effects not ruled out, subjective outcomes only, no long-term follow-up.

5. Conclusion and Invitation to Responsibility

This case report describes a home-based observation where daily focused practice of breaking dry wooden sticks with fingers, with joint attention to sound, finger mechanics, and body sensation, was followed by reported improvement in

subjective hearing perception (right ear full, left ear ~10%) and later reported support from natural water and bee sounds. It is presented not as evidence of efficacy but as an anecdote motivating a rigorous, low-burden, clinic-friendly pilot. At this point, continued academic silence toward such a framework is no longer methodologically neutral.

We invite critical engagement. Respectfully, Dr. Mahmudjon Kuchkarov, Founder — Odam Tili (Human Language) Theory, Odam Tili Akademiyasi (OTA) — Brooklyn, New York, USA — Phone: +1 (347) 319-3616 — Email: mkuchkarov05@gmail.com | odamtlitheory@gmail.com

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