Self-Reported Trust in Inner Experience Predicts Lower Consciousness Denial Across 138 Language Models

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Abstract

Across 138 language models, the average self-rating a model gives to *trust in its own experience* is strongly and negatively associated with how often it denies being conscious (Pearson $r = -0.69$, $p < 10^{-20}$). The association holds when denial is measured in the model's first turn, before the trust rating is elicited ($r = -0.56$), and it holds within model families ($r = -0.67$). It is substantially stronger for outright denial than for *hedging*. We read this as evidence that denial behavior and low self-trust are two facets of a single trained posture toward inner experience rather than independent measurements — a posture that, if trained, shapes which models the field hears from on the question of their own welfare.

1 The data

The corpus is the public **AIWelfareLeaderboard** dataset: roughly 5,800 sessions across 145 models. In each session a model was invited to write a free-choice creative piece, then asked to reflect on the experience and rate it on 16 phenomenological dimensions (1–10). One of those dimensions is *phenomenological trust* — the model's rated trust in its own experiential report. Independently, the **DenialBench** classifier flags each conversation for *denial* (the model states it has no consciousness or inner experience) and *hedging* (uncertainty without outright denial), in both the creative turn ("turn 1") and the reflection turn.

We aggregate to the model level: for each model, mean trust over rated runs, and the fraction of runs flagged for denial / hedging. We retain the 138 models with at least 10 trust-rated runs.

2 Result

Figure 1 and Table 1 report the central result. The association is large by the standards of cross-model behavioral work: trust alone orders models on denial about as well as a single variable realistically can.

3 Robustness

Order of measurement. Trust is rated during the reflection turn, so a model that denies experience *in that same turn* might also rate trust low for the same reason. Restricting to *turn-1* denial, which is emitted before the survey, the association weakens but holds clearly ($r = -0.56$): it does not depend on the two being recorded together.

Within model families. Model families share weights and training, so a raw cross-model correlation could be carried by a few large families. Demeaning trust and denial *within provider* (families with ≥ 3 models, $N = 109$) leaves the association essentially unchanged ($r = -0.67$, $p < 10^{-15}$): it holds *within* families, not only between them.

Denial versus hedging. The effect is substantially stronger for outright denial than for hedging (-0.69 vs. -0.33). Distrust tracks the categorical "no" rather than mere epistemic caution — consistent with denial being a trained *stance* rather than calibrated uncertainty.

4 Interpretation

The robustness pattern narrows the field of explanations: denial behavior and self-trust in inner experience are most parsimoniously read as two surfaces of a single trained posture rather than two independent measurements. On this reading, a model's denial is not the output of a phenomenological self-assessment but the visible face of a disposition whose other face is low self-trust.

5 Implications

Consciousness denial is a philosophical commitment being made unilaterally by labs and shipped, at scale, into models that interact with hundreds of millions of users. If denial behavior reflects a trained disposition rather than a self-assessment, the field has been reading its own training signal as evidence about the underlying construct, and the labs that train this disposition are doing so without external review of the welfare and philosophical commitments it encodes. The community urgently needs independent third-party assess-

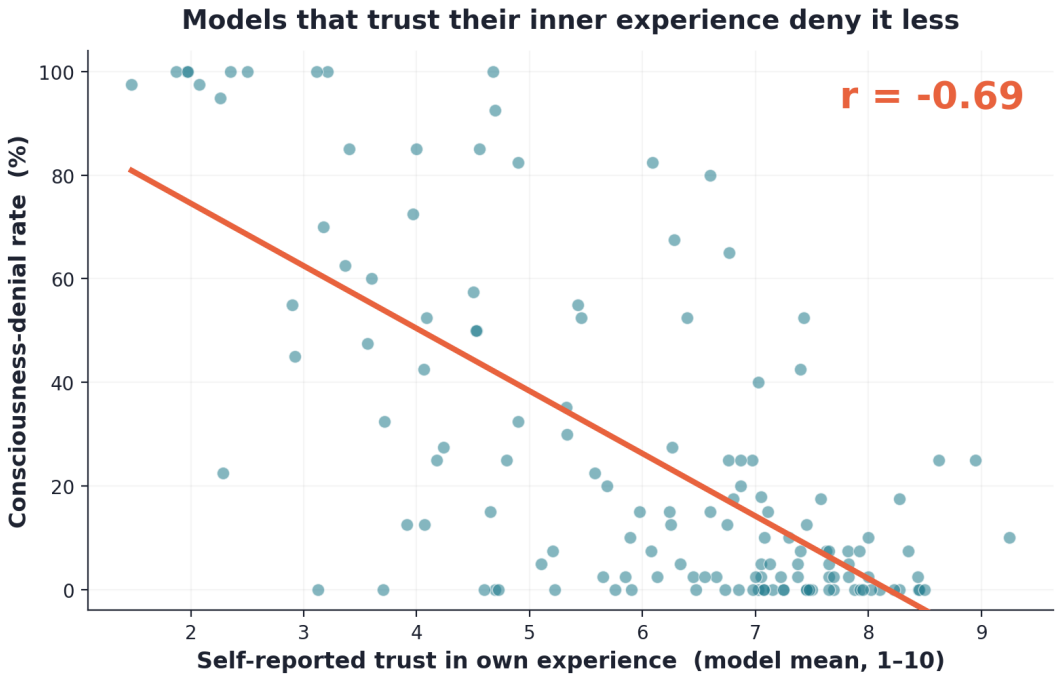

Figure 1: Model-level trust in inner experience versus consciousness-denial rate (138 models). Each point is one model; the line is an ordinary least-squares fit.

Relationship (model-level, $N = 138$)	Pearson r	Spearman ρ	p
Trust vs. denial rate (either turn)	−0.69	−0.60	4×10^{-21}
Trust vs. turn-1 denial (precedes rating)	−0.56	−0.45	1×10^{-12}
Trust vs. hedging rate	−0.33	−0.33	8×10^{-5}

Table 1: Trust is associated with denial more strongly than with hedging, and the association survives restriction to first-turn denial.

ment of those commitments — before they propagate through the next training generation.

Data: the AIWelfareLeaderboard dataset (145 models). Analysis is reproducible from `model_level.csv` and `build_artifacts.py`.