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Reflective Satisficing: Beyond the Classical Speed–Accuracy Tradeoff

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Abstract

Classical satisficing was grounded in single computation. However, when cognitive processing is delegated to external agents, cognitive modes (System 1/2) become dual and isomorphic, creating a 2×2 intersection. This study identifies four cognitive resource allocation patterns arising from this intersection as Reflective Satisficing (RS): co-constrained compromise that bypasses verification (Mode 1: $S1 \times S1$), control recovery through manual verification (Mode 2a: $S2 \times S1$), structural futility where effort fails to convert to accuracy (Mode 2b: $S1 \times S2$), and optimal allocation leveraging external resources as epistemic scaffolding (Mode 3: $S2 \times S2$). The Speed-Accuracy Tradeoff (SAT) predicts that deliberation improves accuracy. Extended cognition expands this landscape in both directions. Mode 3 (77% prevalence) achieves gains beyond the classical curve—deliberation augmented by epistemic scaffolding. Yet we also identify a region where SAT breaks: Mode 2b (84% prevalence), where users lose both speed and accuracy, which derives from the mutual opacity we call the Unlit Black Box (UBB).