DOCUMENT SUMMARY This paper provides a powerful critique of the dominant school of evolutionary psychology, referred to as "Narrow Evolutionary Psychology" (NEP), arguing that its foundations in outdated neo-Darwinian and computationalist theories are flawed. The authors propose an alternative, the Developmental Evolutionary Psychology Theory (DEPTH), which integrates modern biology, developmental science, epigenetics, and anthropology. DEPTH emphasizes human plasticity and the "Evolved Developmental Niche" (EDN)—the species-typical care practices required for healthy development—to establish more appropriate baselines for human nature, directly challenging NEP's deterministic and often pathologizing assumptions.

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FORMATTED CONTENT

Evolving Evolutionary Psychology

Why This Matters to Enlitens

This paper is a foundational text for the Enlitens mission, as it provides a comprehensive, scholarly dismantling of the deterministic, gene-centric evolutionary psychology that has often been used to justify pathologizing views of human nature. It offers a scientifically robust and ethically aligned alternative—Developmental Evolutionary Psychology Theory (DEPTH)—that resonates perfectly with our core principles.

The paper's emphasis on epigenetics, developmental plasticity, and the **Evolved Developmental Niche (EDN)** provides the scientific language for what we do: understanding that every brain makes perfect sense for the life it's lived. The EDN—which includes practices like responsive care, extensive touch, and breastfeeding—gives us a species-typical baseline for healthy development, allowing us to frame neurodivergent traits and mental health struggles not as inherent defects, but as adaptations to an environment that has failed to provide these essential developmental inputs. This paper gives us the theoretical framework to "free people from the disempowering belief in biological determinism".

Critical Statistics for Our Work

- **Humanity's Deep History**: Civilization represents no more than 1% of the existence of the genus *Homo*. Industrialized societies represent a still smaller fraction of that 1%. Humans lived in small-band hunter-gatherer societies for over 1.9 million years.

- **Human Immaturity at Birth**: Human neonates are particularly immature, resembling fetuses of other primates until 18 months of age, requiring an "external womb" (exterogestation).
- **Genetic Similarity**: 99.9% of the human genome is common to all people.
- **Rise in Childhood Adversity**: Adverse childhood experiences (ACEs) are on the rise in the United States, leading to illness and early death.

Methodology We Can Learn From

- **Transdisciplinary Integration**: The proposed DEPTH model is built on integrating knowledge from multiple fields, including evolutionary developmental biology, epigenetics, developmental neuroscience, anthropology, and cognitive archeology. This is a blueprint for the holistic, integrative approach Enlitens champions.
- **Rethinking Baselines**: The paper argues for a critical re-evaluation of what constitutes a "normal" baseline for human nature. It challenges the use of WEIRD (Western, Educated, Industrialized, Rich, and Democratic) populations as the default, arguing instead for baselines derived from EDN-consistent societies (e.g., small-band hunter-gatherers) which better reflect our species' deep history.
- **Focus on Niche Provision**: The authors shift the focus from a simple inheritance of genes to the inheritance of a developmental niche. The "Evolved Developmental Niche (EDN)" provides the necessary context and resources for healthy neurobiological and psychological development. This is a powerful framework for assessment.

Findings That Challenge the System

- **Critique of "Narrow Evolutionary Psychology" (NEP)**:
    - NEP is built on outdated science: It relies on neo-Darwinian adaptationism and a "mind-as-computer" computationalist view, both of which are now subject to "serious, mainstream debate and fundamental revision" within their home disciplines.
    - NEP is genetically deterministic: Despite claims to the contrary, NEP promotes a view where genes are a "relatively fixed" internal source of information and the environment is a "relatively variable" external trigger, a separation that is "indefensible in light of contemporary biological theories and data".
    - NEP Ignores Development: NEP's focus on "ultimate" (ancestral) causes allows it to "effectively sidestep the role of development," a position that is untenable given that development is a direct cause of evolutionary change.
- **The Power of Plasticity and Epigenetics**:
    - Human brains are remarkably plastic. Early experiences, facilitated by our extended immaturity, "contribute to shaping the brain and its functions for the long term".
    - Gene expression is regulated by experience via epigenetics. Influences include "hormones, diets, parenting, and influences from the broader social environment". We inherit far more than genes.
- **"Normal" is Not What We Think**:
    - Characteristics often assumed by NEP to be universal human nature (e.g., selfishness, aggression, specific mate selection criteria) are based on studies of EDN-inconsistent, industrialized populations.

    - In contrast, individuals raised in EDN-consistent contexts (like nomadic foragers) demonstrate characteristics such as "intuitive cooperation and generosity, high autonomy with high communalism, and with no coercion and little competition".

Populations Discussed

- The paper critiques research that overwhelmingly relies on WEIRD (Western, Educated, Industrialized, Rich, and Democratic) samples to make universal claims about human nature.
- It advocates for studying populations that are more representative of humanity's deep history, such as small-band hunter-gatherer societies, to establish more accurate developmental baselines.

Alternative Approaches Mentioned

- **Developmental Evolutionary Psychology Theory (DEPTH)**: This is the central alternative proposed. It is an integrative framework that emphasizes:
    - **Multiple Inheritances**: We inherit genes, but also cell structures, culture, ecology, and a developmental niche.
    - **Developmental Systems**: Humans are dynamic, complex systems that self-organize in response to their experiences.
    - **Plasticity & Epigenetics**: Our biology is profoundly shaped by our environment, especially in early life.
- **The Evolved Developmental Niche (EDN)**: This is a key concept within DEPTH. It refers to the set of ancestral caregiving practices that are necessary for optimal neurobiological and psychological development. The EDN includes:
    - Soothing perinatal experiences.
    - Extended on-request breastfeeding.
    - Constant affectionate touch and responsiveness to needs.
    - Multiple responsive caregivers (allomothers).
    - Self-directed play with multi-aged peers.
- **4E Cognition**: As an alternative to NEP's "mind-as-computer" model, the authors point to the rise of 4E (Embodied, Embedded, Extended, and Enactive) cognition, which grounds cognition in the real-time, practical engagement of an organism with its world.

Quotes We Might Use

- **On Challenging Determinism**: "In contrast to the most prominent evolutionary psychology theory that emphasizes the stranglehold of humanity's evolutionary past, a developmental evolutionary psychology theory orients to dynamic development in the present, taking epigenetics and plasticity seriously".
- **On the Importance of Experience**: "Every individual constructs their personhood through real-time engagement with the world, so it matters what kind of relational experiences the individual has".
- **On the Flaws of NEP**: "...the significant revolutions taking place today in both evolutionary biology and cognitive science reveal NEP to be rooted in the orthodoxies of the past".

- **On What We Inherit**: "We inherit much more than genes. Biology, environment, and culture are seamlessly intertwined, in both individual development and evolution".
- **On Redefining Human Nature**: "It may be time to rethink using individuals with an EDN-inconsistent childhood as prototypical specimens for gathering information on the human species generally".
- **On a New Research Direction**: "Rather than puzzling about altruism, the question would be what sorts of evolutionary and developmental processes explain why there is little or no concern about 'altruism' in deeply cooperative societies...".

Clinical Implications

- **Assessment Must Include Developmental Context**: A client's psychological presentation cannot be understood without assessing their developmental history, specifically the presence or absence of the Evolved Developmental Niche (EDN) components. A lack of these components can be understood as a form of developmental trauma.
- **Shift from Pathology to Adaptation**: Difficulties like stress reactivity, social anxiety, and aggression can be reframed as logical neurobiological outcomes of an EDN-inconsistent upbringing, rather than as inherent disorders.
- **Focus on Prevention and Restoration**: Understanding the EDN provides a clear roadmap for prevention (supporting new parents to provide this care) and intervention (creating therapeutic environments that provide the missing relational experiences to help clients build healthier neurobiological regulation).
- **Challenge Fatalism**: The DEPTH model empowers clients by rejecting the notion of a fixed, genetically-determined "human nature." It emphasizes plasticity and the potential for change and healing at any point in life by providing the right relational and environmental supports.