

The Evolution Revolution Within Psychology: Implications for Understanding Depression

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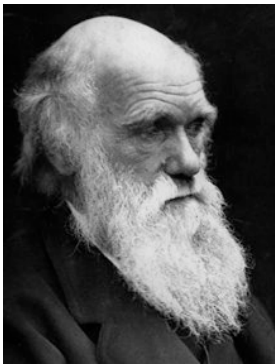
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- **Human Behavior and Evolution Society (HBES)** formed in 1989.

– (see www.HBES.com)

- THEN: 3 places in the US to study evolution and human behavior, and evolution was rarely discussed in Intro to Psych textbooks & tone was negative.
- NOW, over 50 places to study & Intro text references to EP topics such as mating, parental investment, kin selection, and altruism are ubiquitous.

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“In the distant future . . . psychology will be based on a new foundation, that of the necessary acquirement of each mental power and capacity by gradation.”

--Charles Darwin, 1859

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Core Tenets of Evolutionary Psychology

- 1. All behavior is a function of psychological mechanisms + input to those mechanisms.



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- **Milestones in the History of Psychology**

1980s – 1990s to today:
“The Return to Darwin”

(Gazzaniga & Heatherton)

*It is a rare and special privilege to be living in the exciting time of one of the most important scientific revolutions in the history of psychology!

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Important Distinction: Proximate and Ultimate Causation

- Proximate causation - Immediate causal forces: neurons, hormones, situational input, activation of brain mechanism, learning and developmental experiences
- Ultimate causation –Evolutionary processes that have shaped our modern brains and minds

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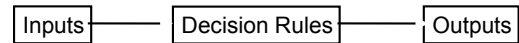
Core Tenets of Evolutionary Psychology

- 2. All psychological mechanisms, at some basic level, originate from evolutionary processes.
 - “Our modern skulls house stone-aged minds.”
 - Importance of evolutionary time lags

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Core Tenets of Evolutionary Psychology

- 4. Evolved psychological mechanisms can be described as IF-THEN information processing devices.



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Core Tenets of Evolutionary Psychology

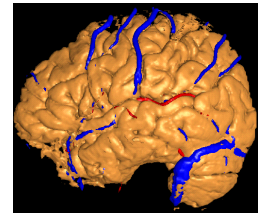
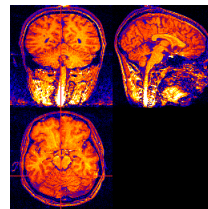
- 3. Natural and sexual selection are the most important evolutionary processes responsible for creating psychological mechanisms.



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Core Tenets of Evolutionary Psychology

- 5. Evolved psychological mechanisms are instantiated in the brain.



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- Adaptive problems associated with survival:
- Adaptive problems associated with mating and reproduction:

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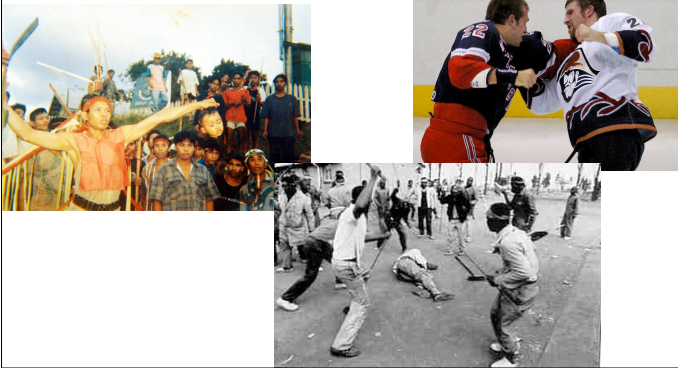
Core Tenets of Evolutionary Psychology

- 6. Evolved psychological mechanisms are functional: Designed to solve statistically recurrent adaptive problems



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Surgeon General's Warning #1: There are Dark Sides to Human Nature

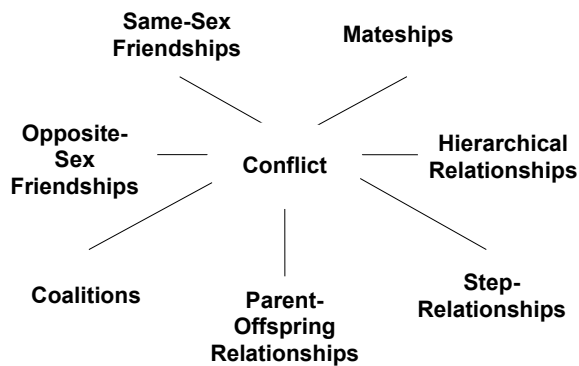


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Part II. Evolutionary Clinical Psychology

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Warning # 2: Conflict is Prevalent



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- By what criteria are “disorder/ dysfunction” defined?

Example - Depression

- Subjective distress
- Duration of symptoms
- Interference

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Warning #3:

Evolved Sex Differences Exist

Men and women differ in domains where they have recurrently faced different adaptive problems over human evolutionary history.

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- Defining disorder is very important in terms of answering the questions:
 - “Is something wrong with me?”
 - Am I normal? Abnormal?”

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Suggestions from Evolutionary Psychology

- First, identify the evolved function of a mechanism, e.g., depression, fear, anxiety, envy, jealousy, lust.
- Must know function in order to identify dysfunction.

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For example, AGGRESSION

- Helped solve adaptive problems associated with:
 - Resource acquisition,
 - Negotiation of status hierarchies,
 - Protection of kin, mate, offspring,
 - Mate guarding
 - Intra-sexual competition

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- Dysfunction occurs when the mechanism is not performing as it was designed to perform.

–Normal fear/anxiety/jealousy/paranoia and the smoke-detector principle.

–Judgment under uncertainty and differential costs of false positives and false negatives.

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- Subjective distress, itself, not a good criteria for disorder, because it can be produced by the normal operation of functional mechanisms:
- Low mood follows from difficulty in solving adaptive problems:
 - Loss of job, loss of mate, loss of respect/esteem, loss of physical attractiveness, loss of financial resources, physical illness/disease, death of loved ones

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Wakefield and Nesse ask:

- Are clinicians over-pathologizing normal and adaptive (if costly unpleasant, and undesirable) emotional states and behavior?

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Possible Functions of Depressed Mood:

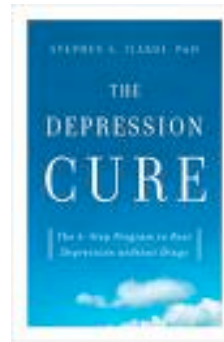
- 1. Encourages more careful and objective appraisals of situations vs. reliance on positive illusions
- 2. May motivate disengagement from hopeless pursuits

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- 3. May motivate withdrawal from certain activities where reputational damage may occur if depression were known
- 4. May signal (via facial expression and/or crying) to close others that help is needed

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Stephen S. Ilardi, Ph.D.



The 6-step program to beat depression without drugs

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- Thus, anti-depressants IN SOME CASES may treat the symptom rather than the problem and interfere with natural healing processes, much like taking medicine to lower a fever.

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The Basis:

- Depression is most prevalent in USA and other Western cultures.
- Why? Greater divergence in lifestyle from the ancestral way of life? (We are like elephants in zoos, to an extent.)
- Response: You can structure your lifestyle and diet in a way so as to minimize risk of depression or even to treat depression.

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- Dysfunction (depression, anxiety) may result IN PART from discrepancies between ancestral and modern environment.

–Modern-day hunter-gatherers, the Amish have virtually no depression . . .

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The Steps

1. Dietary omega-3 fatty acids
Modern diets severely lacking in this nutrient. Brain food found in fish oil. But select wisely.
2. Engage in activities that minimize rumination.

– Many people have too much time on their hands.

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3. Physical exercise is medicine.
Affects neurotransmitters,
neuro-genesis, health, attractiveness)
4. Get daily exposure to sunlight.
Buy a box lamp. Select wisely.
5. Develop and seek social support.
Our ancestors were likely rarely or
never alone.

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Thank you for your
attention!

The End.

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6. Get plenty of sleep!

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D. M. Buss (2000)

- Spend time with kin
- Find your niche and forge deep friendships
- Select a mate who is similar, trustworthy
- Spend time in nature
- Recognize activation of evolved mechanisms and try to over-ride them (e.g., unrealistic social comparisons, lust, the allure of unhealthy food)

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