

Outline of Gillian Barker, *Beyond Biofatalism: Human Nature for an Evolving World* (New York: Columbia University Press, 2015).

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I Chapter 1: Human Nature and the Limits of Human Possibility

- A) Challenging “biofatalism,” or pessimism on social change via biological theories of human nature
- B) New research on human nature: we should be neither pessimistic, nor optimistic, about easy change
 - 1) Plasticity
 - 2) Niche-construction
- C) Engagement with evolutionary psychology (EP), its popular applications, its limits and its promises
 - 1) Entangling facts and values in EP
 - (a) EP is widely cited to support biofatalism
 - (b) EP does not always keep facts and values separate
 - 2) Can one even achieve a separation of fact and value?
- D) Common elements in EP picture of human nature
 - 1) Difference between EEA and today:
 - (a) Contemporary traits are adaptations to long-past environment
 - (b) So, what was once adaptive might now no longer be so
 - 2) Gene-level selection and self-interested behavior
 - (a) Kin selection
 - (b) Mutualism
 - (c) Reciprocity
 - (d) Strong in-group vs out-group distinction
 - (e) External punishment as main mechanism to restrain self-interest
 - 3) Social status concerns: reputation and gossip
 - 4) Sex differences in cognition and behavior
 - (a) Basis: Size / expense of reproductive roles: expensive eggs vs cheap sperm
 - (b) Results:
 - (i) Mating strategies
 - (i) Women prefer older resource providers or younger over-achievers
 - (ii) Men prefer lots of young, pretty (signs of being fertile) women
 - (ii) Attitudes to mate infidelity
 - (i) Women don’t care about men’s sex affairs, but do care if their men fall in love as that threatens paternal investment
 - (ii) Men don’t care about women’s emotional attachments but do care about sexual fidelity
 - (iii) Sexual attitudes
 - (i) Double Standard
 - (ii) Madonna-Whore Complex
 - (iv) Rape as reproductive strategy for low-status men
 - (v) Emotional styles
 - (i) Female nurturing
 - (ii) Male competition, achievement, showing off
 - (vi) Sexual division of labor
 - (i) Female gathering (relatively safe)
 - (ii) Male hunting (relatively risky)
 - (vii) Cognitive capacity
 - (i) Female social skills
 - (ii) Male planning, tool use, spatial orientation

II Chapter 2: The Cost of Change

- A) “Cost / benefit” is an economic metaphor that when usually applied
 - 1) Blurs fact / value distinction

- 2) Overly simplifies complexities and limits of actual cost-benefit analysis
- B) EP examples bring up a distinction
 - 1) Cost as effort to change beyond natural limits: totalitarian control, forced behavior modification
 - 2) Cost as damage to well-being caused by that effort and change: loss of freedom and diversity
- C) But, cost-benefit analysis requires common unit of measure which is not really possible in this context
 - 1) What factors should be included; how to be measured?
 - 2) What aspects of change should be examined?
 - 3) What kinds of interventions and how are their “costs” to be measured and evaluated?
 - 4) What problems arise from applying cost-benefit analysis to wider social context?
- D) A robust, content-laden notion of human nature might provide objective rankings
 - 1) But is such a notion possible w/o a lot of fact / value assumptions?
 - 2) EP tends to assume some phenotypes are “natural” (normatively good) and others “forced”
 - 3) For instance, when thinking of sex differences: sometimes extremes come to denote “natural type”
- E) Beware the straw notions of “utopian thinking” attributed to social reformers, as they allow unwarranted pessimism about more modest goals

III Chapter 3: Thinking about Change and Stability in Living Systems

- A) Key concept: “norms of reaction”: same genotype: different phenotypic expression in differing environments
- B) Causal concepts and metaphors
 - 1) Internalism: genetic determinism:
 - (a) Organism has fixed nature
 - (b) Causal metaphors
 - (i) Programming or hard-wiring
 - (ii) External forces are only interference or obstruction of execution of program
 - (iii) Recipe metaphor of Dawkins
 - (i) Genes are recipe
 - (ii) Environment supplies ingredients and cooking equipment
 - (iii) Phenotype is the result
 - 2) Externalism: environmental determinism:
 - (a) Organism as blank slate
 - (b) Causal metaphors
 - (i) direct impression
 - (ii) sifting or sorting
 - 3) Interactionism
 - (a) Conservative interactionism
 - (i) Internal forces keep development on track
 - (ii) Unless large external forces intervene
 - (b) Radical interactionism
 - (i) Non-additive interaction of causal factors allowing strong, multiple differences
 - (ii) “Response” as metaphor
 - (i) Strong internalism / externalism sees organisms as malleable or determined
 - (ii) Response allows organisms to be agents who sense and self-modify
 - (c) EP uses branching program metaphor
 - (i) Environmental inputs trigger “switches” along pre-determined paths
 - (ii) No agency, but weakens the mono-targeted nature of conservative interactionism
 - 4) Ontogeny (Oyama, West-Eberhard)
 - (a) Rejects interactionism as assuming that genotype and environment remain distinct
 - (b) Rather, what responds at each step is a novel development from previous step
- C) All the processes captured by these metaphors still have a physicalist realization base
- D) However, we can still ask which metaphor is best for the social change level
 - 1) Conservative interactionism entails biofatalist pessimism
 - 2) Radical interactionism allows some hope
 - 3) Rest of book uses response metaphor to investigate issues

IV Chapter 4: Lessons from Development, Ecology, and Evolutionary Biology

- A) Plasticity
 - 1) Types:
 - (a) Passive: malleability or susceptible to direct impression
 - (b) Active: response allowing complex, likely to be adaptive coordinated changes via multilevel feedback
 - 2) Structures of plasticity processes
 - (a) Continuous modification vs discontinuous switches
 - (b) Ongoing vs restricted developmental windows
 - (c) Reversible vs irreversible
 - 3) Not just morphology but also behavior (swift, reversible phenotypic change)
 - 4) Evolution of plasticity: nervous systems and endocrine systems are adaptations for plasticity
 - 5) Non-linear relations of cues and responses
 - (a) Anticipatory
 - (b) Latent: awaiting rare environmental triggers
 - 6) Plastic responses can produce phenotype stability
 - (a) Scaffolding: when environmental cue is always present
 - (b) Robust development: in variable environments, plastic compensations can still produce sameness
 - 7) Implications for human beings
 - (a) We have evolved for plasticity: (JP: “our nature is that nurture becomes our nature”)
 - (b) But that plasticity still produces quite robust similarities: (e.g., prosocial commitments)
 - 8) EP accepts plasticity but with limits
 - (a) For them, much behavioral difference is surface appearance produced by same psych mechanisms
 - (b) There is a behavioral core that plasticity protects
 - 9) Plasticity requires rethinking metaphors
 - (a) “Blank slate” mistakes active response plasticity for simple passive malleability
 - (b) “Hardwiring” mistakes robust development for mechanical unfolding
- B) Niche-construction
 - 1) Feedback loops: phenotypic change that enables environmental modification that in turn modifies selection pressures for those phenotypes
 - 2) Types of niches: physical, biotic, social:
 - (a) Each produces pressure for adaptive plasticity capacities
 - (b) Reliably modified environments are an external inheritance system
 - 3) Can maintain reliable triggers to support intra-species discontinuities or “polyphenisms”
 - 4) Human behavior can be habitualized by “behavior settings”
 - (a) Stabilized cross-generational respect for authority through monumental architecture
 - (b) Changes also though, as with many forms of technology (cheap transport via bicycles or public transport can change behaviors)

V Chapter 5: Human Possibilities

- A) Intro:
 - 1) Current human diversity is not a full response profile
 - (a) We haven’t exhausted all forms of social environment to see what response ranges would be
 - (b) Current responses do not fully reveal underlying causes
 - (i) Current robust behaviors are quite possibly result of plastic sensitivity to triggers of switches
 - (ii) The environments humans are now exposed to is a limited slice of possible societies
 - 2) EP insists that what we now see are the limits of human achievement w/r/t core human nature
 - (a) Hence, limited plasticity, such that only unacceptably extreme environments would effect change
 - (b) Based on two lines of argument
 - (i) Cross-cultural studies
 - (i) Do these show that relevant plasticity able to produce other behaviors is absent? (Are current environments different enough to exhaust response profiles / “norms of reaction”?)
 - (ii) EP tends to focus on inter-population trait averages and not on intra-population diversity
 - (ii) Assumptions about evolutionary bases
- B) Explaining Diversity
 - 1) Reasons for optimism: traits of peacefulness, out-group openness, gender trait openness
 - (a) Often dismissed as noise relative to core “species-typical” traits

- (b) But sometimes allowed as low-frequency options or mistakes
 - (i) However, this conflates descriptive and normative senses of frequency of expression
 - (ii) For instance, the “misfiring” whereby frequent early encounters will trigger false-positive default setting on kin recognition and subsequent altruism
- 2) Assumptions about evolutionary bases
 - (a) Assumes EEA = stable set of “problems” to which behaviors / psych mechanisms are solutions
 - (b) Criticism
 - (i) However, species can maintain latent plasticity if environments do not provoke expression of traits, which are hence hidden from selection (selection only occurs with phenotypic expression)
 - (ii) Also, the EEA might have been more variable than assumed
 - (i) Hence rare but recurrent situations
 - (ii) May have provoked “conditional strategies with highly specific environmental triggers”
 - (iii) Human evolution may not have stalled since the EEA
 - (iv) Consider niche-construction: have we exhausted our social environment range?
- C) Sexual Strategies:
 - 1) Patricia Gowaty proposes human sexual strategies as flexible adjustments to environments, with female reproductive autonomy being most important variable
 - 2) Standard story: behavior difference via parental investment (cheap sperm, expensive eggs / child raising)
 - 3) Criticism:
 - (a) Kitcher: males who self-assess as low “success” would prefer staying at home to playing the field
 - (b) Gowaty: females won’t all agree on who are “successful” males
 - (i) Females are tuned to find complementary genes to them, not simply “the best” so with full choice you would expect to find females with varying strategies
 - (ii) If however you have social constraints / male control of resources then you would see stable male / female different strategies as described by EP as “species-typical”
 - 4) Gowaty’s “optional responses” model is radical interactionism implying evolution of humans as active responsive niche-constructors

VI Chapter 6: Valuing Change

- A) Intro:
 - 1) Both facts and values have to be considered
 - (a) Facts: how do humans respond to environments?
 - (b) Values: which environments / responses are good and should be pursued?
 - 2) EP position of “limited malleability”: Human nature sets limits to acceptable social experimentation
 - (a) Thus, the environments we tend to see succeed are the ones that are good for humans
 - (b) However, some do admit that we should seek changes
 - 3) Active response position
 - (a) Plasticity and niche-construction give us more options than we have seen to date
 - (b) But that just pushes us to politics as means of resolving value disputes
- B) Evaluation: What Makes a Social Change Good?
 - 1) EP tends to use cost-benefit analysis
 - (a) Four types of costs
 - (i) Effort to initiate and maintain change
 - (ii) Increased unhappiness
 - (iii) Decreased freedom
 - (iv) Phenotypic trade-offs
 - (b) Recall from Chapter 1
 - (i) Cost-benefit analysis needs to include benefits of change and costs of non-change
 - (ii) Need to look at uneven distribution of costs / benefits not just at population averages
 - (iii) Need to beware of assumption of univocal scale (money or reproductive success)
- C) The Problem of Value: What is Good for Us?
 - 1) EP and happiness
 - (a) EP ignores costs of our “normal” societies
 - (i) Unhappiness from enforcement of “natural” gender expression
 - (ii) Unhappiness from limited choices due to poverty within “natural” social inequality

- (b) EP ignores different forms of happiness in changed social situations
- (c) EP ignores increased costs from staying the course in private property regimes (climate / population)
- (d) EP focuses on unhappiness when “normal” human nature is blocked but neglects unhappiness when “abnormal” expressions are blocked
- 2) EP and freedom
 - (a) Focus on decreased freedom they claim results from social change
 - (b) Ignore already existing unfreedom in “normal” society qua expression of “human nature”
- 3) EP search for answers neglects epistemic limits and prevents trying for cautious hopeful change

VII Chapter 7: Choosing Environments

- A) EP has narrow conceptions of happiness
 - 1) To assess happiness, we need to consider adaptive preference:
 - (a) People modify happiness to expectations
 - (b) So, you might just be making the best of a bad situation that under-develops potentials
 - 2) Capabilities approach might avoid this problem: what are human potentials shown in other circumstances that might be foreclosed to some, so they don’t know what they are missing?
 - 3) As well as a further wrinkle from the active response position:
 - (a) Different circumstances might produce different desires
 - (b) So, some behaviors might be adaptive response to circumstances
 - (i) Gowaty: sexual choices conforming to environmental cues about female reproductive autonomy
 - (ii) Risky behaviors
 - (i) Conservative interactionism sees these as pathological deviations from normal
 - (ii) Radical interactionism: alternate pathways as active responses to circumstance:
 - 1. You might as well live fast, if you are going to die young
 - 2. For example, early pregnancy or violent aggression might be active responses
 - (c) Recap: environments can influence happiness as desire achievement
 - (i) They can determine how capable you are of achieving the desires you have
 - (ii) But they can also shape what desires you have
 - 4) EP: Orwellian threat of limited desire achievement but overlooks Huxleyan modification of desire
 - 5) Response perspective: Le Guin’s multiplicity of different forms of human achievement
- B) EP: narrow conception of freedom, as negative liberty or absence of constraint = free action
 - 1) Freedom as capacity to act according to desire assumes desires as given by human nature
 - (a) Misses adaptive preference (downward pressure on action to avoid disappointment)
 - (b) Misses response notion of alternate pathways / desires as attuned to environment
 - 2) But also, idea that free choice maximizes population happiness neglects that such free action might produce costs imposed on the marginal and “abnormal”
 - 3) Capability notion of freedom is better as autonomous action to realize potentials
 - (a) Traits such as generosity, health, intelligence
 - (b) Are seen by capability approach as means to end of autonomous potential realization
 - 4) Response perspective looks to tradeoffs at social level but this needs lots of discussion due to incommensurate values
- C) Costs in producing environment that provokes “human nature” as aggressive males and domestic females
 - 1) For instance, does pop culture reflect or produce desire?
 - 2) Niche-construction avoids this binary: environments spiral in feedback and ratchet effects
 - 3) EP: expensive investments in environments that produce “human nature” are not really “costs”
 - 4) Question of “self-sustaining” systems can be seen as robust reproduction
 - (a) But bad, exploitative, harmful systems can be robustly reproduced
 - (b) So, response perspective means we have to re-evaluate what counts as a “cost”

VIII Chapter 8: What is Feasible?

- A) Two dimensions of feasibility: achieving change and maintaining it
- B) Feasibility from EP and from response perspective
 - 1) EP: status quo of contemporary liberal democracies
 - (a) Stable bcs close approximation to human nature and no special effort needed to maintain it
 - (b) Changing it would require overcoming “natural” resistance to such change

- 2) Response perspective:
 - (a) Stability is achieved in complex continual reconstruction
 - (b) So, big changes might come from small tweaks in some cases
- C) Causal factors that sustain contemporary social structures
 - 1) Patterns of choice can be changed by nudges that shift default
 - 2) Estimations of wealth can trigger selfishness, but this can be changed by compassion nudges
 - 3) Even natural settings can trigger helping behavior
 - 4) Cognitive patterns can be influenced
 - (a) Stereotypes
 - (i) (Schemas for categories of people) can entrench selection bias
 - (ii) But they can also be altered by critical media studies and so on
 - (iii) Stereotype threat can be altered by cues stressing individuality rather than group identity
 - (b) Moving to growth mindset from fixed mindsets can help ppl change themselves
 - 5) Larger social structures can enforce feedback loops:
 - (a) Can be hard to get out of poverty / homelessness
 - (b) But small changes can increase opportunities to escape: support networks
 - 6) Roots of Empathy project:
 - (a) Providing opportunity to provide child care can spark sympathy / empathy
 - (b) That can carry on outside classroom
 - 7) Pinker's recent work looks to big social frameworks
 - (a) Modern state, commerce, feminization, media, travel, rationality
 - (b) But neglects small material support and niche construction
- D) Response perspective, by emphasizing nonlinearity of causes, can help us focus on the details
 - 1) Tweaking small factors might cause big changes
 - 2) But also, robust systems can depend on multiple, small, easily overlooked factors: "micro-inequities"
 - (a) Traditional critical social theory looks to symbolic order
 - (b) But response can push us to look at the material as well
 - 3) We should also be aware of the real effects of biofatalistic speech
 - (a) Implicit biases, stereotype threat, and "fixity mindset" by naturalizing (gender) roles
 - (b) So, some tweaks to such speech might obviate need for "utopian" intervention
 - 4) An example: the "natural" desire for sweets
 - (a) Yes, the EEA probably produced disposition to pleasure with sweet foods
 - (b) But look at all the ways it's amplified, from tax breaks for corn syrup to massive advertising
 - 5) Scope of intervention
 - (a) Internalist hormone therapy can affect social world by increasing one or another behavior
 - (b) Externalist institutional change can have internal bio-political effects via neuroplasticity patterning

IX Chapter 9: Evolutionary Psychology and Human Possibilities

- A) Book has reviewed popular EP and specialized research on development, etc.
 - 1) We can use these reviews to pose good questions about social change and human nature
 - 2) EP conservative interactionism is not supported by new research
 - 3) Active response perspective leverages plasticity and niche-construction research
 - (a) Tweaks at key points can trigger large changes
 - (b) And the new pathways need not be catastrophic to happiness and freedom
- B) Need to understand mechanisms of change before considering "cost / benefits" and ethical implications
- C) Must not be afraid of "politics"
 - 1) It's how societies make ethical choices
 - 2) So, the problem is not too much politics
 - (a) That is, we can't pretend to avoid politics by saying "let human nature take its course"
 - (b) Because "human nature" is always already political (niche-construction and adaptive plasticity)
 - 3) So, we need more politics, the right kind (democratic and scientifically informed)