

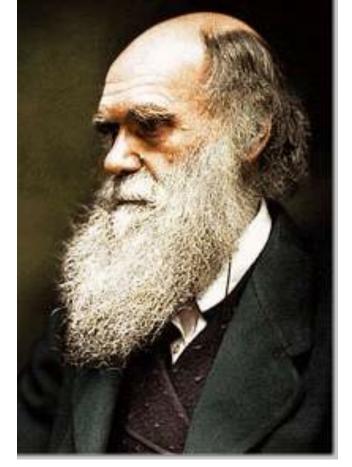
Theoretical Perspectives

# 2. Evolutionary psychology

http://users.ox.ac.uk/~sfos0060/ SociologicalTheory.shtml

## Introduction

Charles Darwin (1871): 'the difference in mind between man and the higher animals, great as it is, is certainly one of degree and not of kind'





Observational primate studies, esp. chimpanzees, reveal complex—and familiar?—social life (e.g. de Waal 1982)

# Evolutionary psychology

Sociologists are vehemently anti-Darwinian, but this complements rational choice—

- individualistic
- does not assume rational calculation
- gives an account of desires, including social preferences, e.g. sexual jealousy

even if wrong, cannot ignore!

# Principles

- <u>Ultimately</u> human behaviour evolved to maximize reproduction—to maximize individual's genes surviving to the next generation, including genes shared with relatives (<u>inclusive fitness</u>)
- Proximately
  - desires
    - sexual desire—contraception enables this to be divorced from reproduction (Symons in Barkow et al. 1992)
  - beliefs processed by specialized mental <u>modules</u>, analogous to Chomsky's language
    - unconscious perception: e.g. detecting cheating (Cosmides & Tooby in Barkow et al. 1992; Cosmides, Barrett, & Tooby 2010)

# Wason test (Cosmides & Tooby in Barkow et al. 1992)

 Test hypothesis: If card shows an even number on one face, then its reverse will be red

3 8

 Enforce rule: if person is drinking beer, then s/he must be over 20 years old

drinking beer

drinking Coke 25 years old

16 years old

- Desires are universal across all cultures—
   but crucial differences between male and female (Bateman's principle)
  - females invest more in offspring, therefore more choosey about mates
  - males compete for females; greater variance in number of mates and offspring
- Desires/perceptions were adaptive in the <u>ancestral environment</u>:
  Pleistocene foragers (1.8m to 10k YA)
  - e.g. taste for sweet/fat

#### Style of explanation В 600 600∔ Homicide victims per million coresident parent-child dyads per annum 500 500+ The Truth 400 400 **About** 300 300+ Cinderella (Daly & 200-200+ Wilson 1998) 100-100+ 9-11 12-14 15-17 6-8 9-11 12-14 15-17 6-8 3-5

**Fig. 1.** Age-specific rates of homicide victimization by (**A**) genetic parents (n = 341 victims) or (**B**) stepparents (n = 67), Canada, 1974 to 1983.

Age of child (years)

- Daly & Wilson argue for desire derived from inclusive fitness: step-parents lack 'child-specific parental love'
  - not genuine strategy of infanticide, found in some other primates
  - step-parenting effort as mating investment
- Empirical controversy (Buller 2005)
- Adoption!? (Hamilton, Cheng, & Powell 2007)
  - deliberate choice by parents
    (child-general alloparental love: Hrdy 2009)

# A theory of patriarchy?

Convergence with feminism? (Smuts 1995; Sex Roles 2011) 'biology itself—procreation—is at the origin of the dualism' (Firestone's Dialectic of Sex, 1970)

- family as a site of conflict
- male violence, control of female sexuality; <u>male sexual</u> <u>proprietariness</u> (Wilson & Daly in Barkow et al. 1992)
- female sexual agency
  - 'father' is not genetic father in 1% births (Gilding 2009)

- Patriarchy counteracted by
  - opportunity for female-female alliances, e.g. chimpanzees *v* bonobos (? de Waal 1982)
  - less unequal male hierarchy, e.g. Scandinavian countries
  - emancipation from *husband*'s resources; dependence leads to greater sexual restriction (Horne 2004)

## **Problems**

- I. Fundamentals (Buller 2005)
  - what was social life in ancestral environment?
  - can we assume no significant genetic change since?
    - lactase persistence (Gerbault et al. 2011)
  - are mental modules compatible with neurobiology?

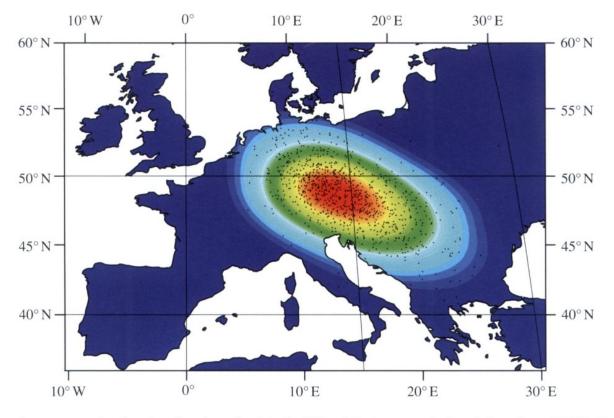
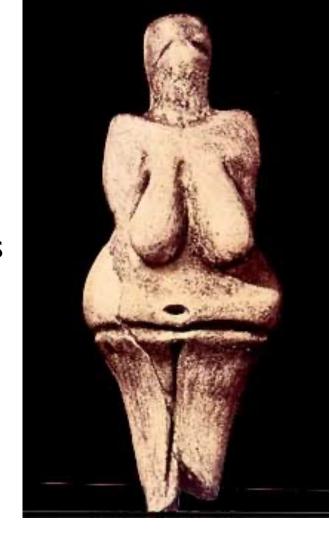


Figure 4. Approximate posterior density of region of origin for LP—dairying coevolution (taken from [105]). Points represent regression-adjusted latitude and longitude coordinates from simulations accepted at the 0.5% tolerance level. Shading was added using two-dimensional kernel density estimation (doi:10.1371/journal.pcbi.1000491.g003).

### 2. Variation across cultures

- social scientists are interested in *variation*, not universals—e.g. variation in male reproductive success (Brown, Laland, & Borgerhoff Mulder 2009)
- humans specialize in *plasticity*—culture (Prinz 2012)
- ideal waist-hip ratio of .70! (Freese & Meland 2002)
- Moso in southwestern China (Shih 2010)



# Summary

# Evolutionary psychology:

- explains social behaviour by desires and perceptual systems that maximized inclusive fitness in the Pleistocene Epoch—but may not under modern conditions
- people behave differently due to differences in desires (male/female) or differences in opportunity (via perception)

#### Virtues:

- emphasizes sex/romance (cf. Hakim 2010)
- provides baseline for thinking about cooperation and perhaps sexual differences
- individual inherently social—social emotions

# **QUESTIONS**

- From a biological perspective, social hierarchy is grounded on reproductive competition. In modern societies, however, people with great wealth and high status do not have more offspring than average. Does this refute evolutionary psychology?
- 'Sociologists tend to ignore sexual desire, even though everyday experience as well as evolutionary biology suggests that this desire is an important human motivation.' Discuss.
- Does evolutionary psychology challenge or complement feminist theories of patriarchy?
- Can the behaviour of Hawaiian women in the 18th century (e.g. Sahlins 1985) be explained by evolutionary psychology? If not, does that particular case falsify the theory?

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