

Studyguide 3

Survival (conclusion)

Food

1. Cooking is universal. What is the effect of cooking on human nutrition, and how do we know? (this idea is not controversial).
2. Why does Wrangham think this is related to the evolution of big brains in the human lineage (genus Homo)? (this latter inference is controversial)
3. Why do we use spices (according to Sherman and Billig)? How does spice use vary geographically, and why?
4. Spice use is clearly cultural, yet is biologically adaptive. Cultural and genetic evolution are separate processes, but this example shows how culture can be adaptive in a Darwinian (genetic) sense. We also saw, with genetic adaptations to milk drinking and starch-heavy diets, that culture itself can promote adaptive genetic evolution.
5. Both rats and humans need to solve the 'omnivore's dilemma' of what to eat. What evolved mechanisms help them do this? (evolved taste preferences for...what? neophobia? emotions (disgust)? social learning?. Review text and lecture notes.
6. What elicits a disgust expression in infants? What things evoke disgust at later ages? (lecture and text)

spatial ability, etc

1. How do males and females differ in spatial ability? Across a range of non-monogamous species, males range farther in search of mates, and those sex differences in range size are related to sex differences in spatial ability. Might this also explain sex differences in spatial ability in people? Review the evidence given in lecture.
2. The text refers to studies showing that women have better object location memory than males, and argues that this may be an adaptation to their specialized role in gathering. Did the evidence from the Hadza support this? (Cashdan reading)
3. Was the usual sex difference in other spatial abilities, which typically favor males, also found among the Hadza? (Cashdan reading)
4. Why do men hunt? A pattern found cross-culturally among foragers is that men do more hunting, especially of large mobile game, and women gather, and the food is shared. Anthropologists actively debate the reasons for this. What is the show-off hypothesis? The provisioning hypothesis? (text)

Note: This was discussed in the text, not lecture, so here is my summary: The traditional view (provisioning hypothesis) is that the male specialization on hunting was part of what led to human pair-bonding, and that by provisioning offspring women could raise very helpless young more successfully. Hawkes, noting that big game is widely shared and is not directed to a man's own children, has argued that men hunt because it is a risky tactic that when successful gets them more social attention (showoff hypothesis). Anthropologists continue to debate this. Some claim that hunters and their families do gain directly from the food men acquire (especially small game and honey), and others have shown that there is contingency in sharing (people receive more if they are generous) so sharing benefits them in the long run. The returns from being generous with meat can come in different forms, and can be delayed (generous people are more likely to get help when it is really needed, when they are sick or injured). Everyone agrees that there are strong cultural pressures to share large game widely, and that women like good hunters as mates. As Buss notes at the end of this section, men can gain benefits from both showing off and provisioning, which is where I come down on this whole debate.

Sexual selection and mating

Sexual selection

1. What is sexual selection? What causes it?
2. Darwin identified two types of sexual selection. What are they? Give some examples of traits likely to evolve from each type of sexual selection.
3. Many birds, especially male birds, have extravagantly showy plumage. Andersson's classic study on widowbirds (lecture) suggests that their long tails evolved through sexually selection. Which of the two types of sexual selection (see previous question) is probably responsible?
4. Peahens are similar—is their preference for peacocks with showy trains adaptive? Why? (film “Why Sex”)
5. What type of mating pattern would you expect to find in a species where males care for offspring more than females do? (jacanas were shown in the film “Why Sex”).
6. What is the relationship between mating system (polygyny, monogamy, polyandry), sexual dimorphism, and variance in reproductive success?
7. Males typically have greater variance in reproductive success than females, but the magnitude of that difference varies a lot cross-culturally. How does it vary across forager, horticultural/pastoral, and state-level societies? (lecture). What other variables might you expect to vary in consequence?

Women's long-term mating strategies

1. Women are usually more choosy about mates than men. Why?

2. Women prefer partners with good economic potential. Why? How robust is this generalization (evidence from both text and lecture)? Note also the Kipsigis evidence, which is typical for polygynous societies, p. 126
3. Understand both the evolutionary explanation for this female preference, and the “structural powerlessness hypothesis,” and why the text thinks that the latter is not supported by the evidence (123)
4. Review the evidence for other traits women find attractive in a long-term partner (text).
5. Remember that the great disparities in wealth and status seen in state-level societies are an “evolutionary novelty” not found in hunter-gatherers.
6. Why do females find physical strength and athletic prowess attractive? Do they find these characteristics desirable for a long-term or short-term mate, or both? Note the argument by Smuts, discussed on pp 114-5, which she has also applied to people. What evidence supports her explanation?
7. In lecture (also in the text), we discussed indicators of genetic quality that have been shown to affect women’s mate preferences, including MHC diversity and low fluctuating asymmetry, both of which are indicators of genes associated with health (review the evidence).
8. It is more likely that masculine facial features and other testosterone-related traits evolved through intra-sexual selection (male-male competition) than female choice (epigamic selection). Evidence that it indicates health is iffy. But it may still convey useful information to females; why else might females find masculine features attractive? See bottom p. 117.
9. The answer to the question “Do women like very masculine-looking men is “up to a point” and “it depends”. What might it depend on? (film, lecture, text). Think about the reasons why preferences might be expected to vary.
10. Women’s mate preferences vary depending on whether they are assessing a partner for a long-term or a short-term mate. How?
11. Is love an evolutionary novelty? How is it related to commitment? (118-9)
12. Do women find men more attractive if the men are interacting positively with children? What do we know about women’s ability to assess a man’s interest in children (from lecture)? Does an interest in infants make men more attractive as a long-term or a short-term mate? (text and lecture)
13. Most of the evidence bearing on mating preferences comes from questionnaires. Some anthropologists, noting that women’s mating behavior is often constrained (arranged marriages, etc), doubt that women’s mating preferences are an important evolutionary force since those preferences won’t be reflected in behavior. Is evidence from women’s mating and marriage behavior consistent with their stated preferences? Review the behavioral evidence.
14. Do female expectations affect male mate-seeking behavior? Review the effect of priming men with young attractive women (128). The lecture described a similar phenomenon in damselfish where females favored males who looked like they would be investing dads.

15. When reviewing the material on mate preferences, remember that although most of the attention in ev psych has been on areas that differ among men and women (resources, beauty, fidelity, etc) most important criteria are similar for women and men. See also the discussion in the text on “preference for similarity”.
16. Does the distinction between butch and femme lesbians have any basis in psychological and/or physiological reality? (see box 4.1, text).
17. There are genetic costs to inbreeding; the Small article (also lecture) discussed evidence that both mice and people avoid mating with individuals who are genetically similar.
18. What are the MHC genes and why are they relevant to this? What is the evidence bearing on MHC and mate preferences? (review both Ober’s and Wedekind’s studies in the Small article).

Asante Market Women

Review/Background: Asante are matrilineal, which means that inheritance (and property) is passed down through the female line. If you were Asante, your matrilineage would include your siblings, your mother, your mother’s brother and her other siblings, your mother’s mother, etc. If you are female, your children would also be part of your matrilineage, but if you are male your children would belong to the matrilineage of your wife/their mother. In this society, children do not inherit from their father, therefore, but rather from the men of the matrilineage (e.g., mother’s brother).

1. Marriage ties are usually not strong in matrilineal societies, perhaps because of the low paternal investment associated with it. Is this so for Asante? Are a woman’s closest relationships to her children and matrilineal kin, or her husband?
2. Women have a lot of economic independence in this society. Does this give them power in the home, or are they subordinate to their husbands?
3. What do men and women think of polygyny in this society? Are co-wives competitive?