

# New Perspectives on Gender

# TOC

- **Introduction**
  - Big influences from psychology - gender differences in preferences
  - Some influences from sociology/social psychology – refining gender discrimination models.
  - Some influences from biology/brain science – nature versus nurture
  - Older and newer perspectives on gender used to explain the closing of the gender gap
  - Looking into the future: the trouble with boys
- **Risk attitudes**
- **Attitudes towards competition**
- **Social preferences (maybe not)**
- **New perspectives on discrimination: Gender identity; implicit discrimination**
- **Nature vs. nurture?**
- **Women are closing the gender gap - newer and older perspectives on why**
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- **Looking to the future: the trouble with boys**

# Gender differences in preferences

- **Risk Attitudes**
- **Attitudes towards competition**
- **Social Preferences**
  - *not sure whether to have something on that topic here or not. Note that the “current bottom line” in this literature is NOT that women are more (or less) socially oriented than men; the main difference seems to be that women have social preferences that are more easily malleable. This should be stressed in combination with the “Levitt and List” critique of trying to measure social preferences in the lab.*
- **Lab and Field**

# Risk Attitudes

- Two recent surveys of the lab literature: Gneezy and Croson, Eckel and Grossman

# Risk Attitudes

TABLE 1

	Experimental details	Pay	Gain/loss	Summary	Risk taking	Controls included <sup>?</sup>
Holt and Laury (2002)	Students	Yes	Gain	Choice between lotteries according to mean–variance. Varied also the level of pay	Low payoffs: M > F High payoffs: M = F	Yes
Hartog, Ferrer-I-Carbonell, and Jonker (2002)	Mail survey and Dutch newspaper	No	Gain	Willingness to pay for high-stakes lotteries. Gender difference in risk aversion parameter is estimated at 10 to 30 percent	M > F	Yes
Dohmen et al. (2005)	Rep. sample of German population and students	real and hyp	Both	Survey instrument is validated in experiments. Survey questions predicted behavior well	M > F	Yes
Powell and Ansic (1997)	Students	Yes	Both	Choice of insurance cover in one treatment and an unfamiliar financial decision about gains in another	M > F	No
Eckel and Grossman (2002a)	Students	Yes	Both	Choice between lotteries according to mean–variance. Frame (gain/loss) changed between treatment	M > F	Yes
Eckel and Grossman (2002b)	Students	Yes	Both	Choice between lotteries according to mean–variance. Lotteries and investment frames with the possibility of loss, and a lottery frame with no loss	M > F	Yes
Fehr-Duda, Gennaro, and Schubert (2006)	Students	Yes	Both	Gender differences depend on the size of the probabilities for the lotteries' larger outcomes	M > F	Yes
Levin, Snyder, and Chapman (1988)	Students	No	Both	Half of the subjects were given the “chance of winning” each gamble, and half were given the “chance of losing” each lottery	M > F	No
Finucane et al. (2000)	Phone survey	No	Both	Ethnically diverse group of participants. White males were more risk taking than all other groups	M > F	Yes
Schubert et al. (1999)	Students	Yes	Both	Choice between certain payoffs and lotteries in abstract and contextual frames	Gains: M > F Losses: M > F Contextual: M = F	No

# Risk Attitudes

- Explaining gender differences in risk aversion:
  - Emotional/affective reaction to stress
  - Overconfidence
  - Risk as challenge or threat
  - Identity
- Gender differences also hold in survey questions / strong correlation with lab measures / gender differences in risk attitudes hold across domains
  - Various papers by Armin Falk et al.
- General population versus selected subgroups
  - E.g. mutual fund managers/importance of controlling for knowledge
  - Link to lit on cognitive ability and risk attitudes

# Competition

- Lab work
  - Niederle and various co-authors:
    - Men outperform women in competitive settings (winner-take-all vs. piece rate)
      - Especially pronounced in mixed-sex environments
    - Women shy away from competition (when asked to choose btw piece-rate and tournament)
    - Why?
      - Gender differences in overconfidence, risk attitudes, feedback attitudes re. relative performance
      - But differences remain after accounting for all this – gender differences in taste for competition

# Competition

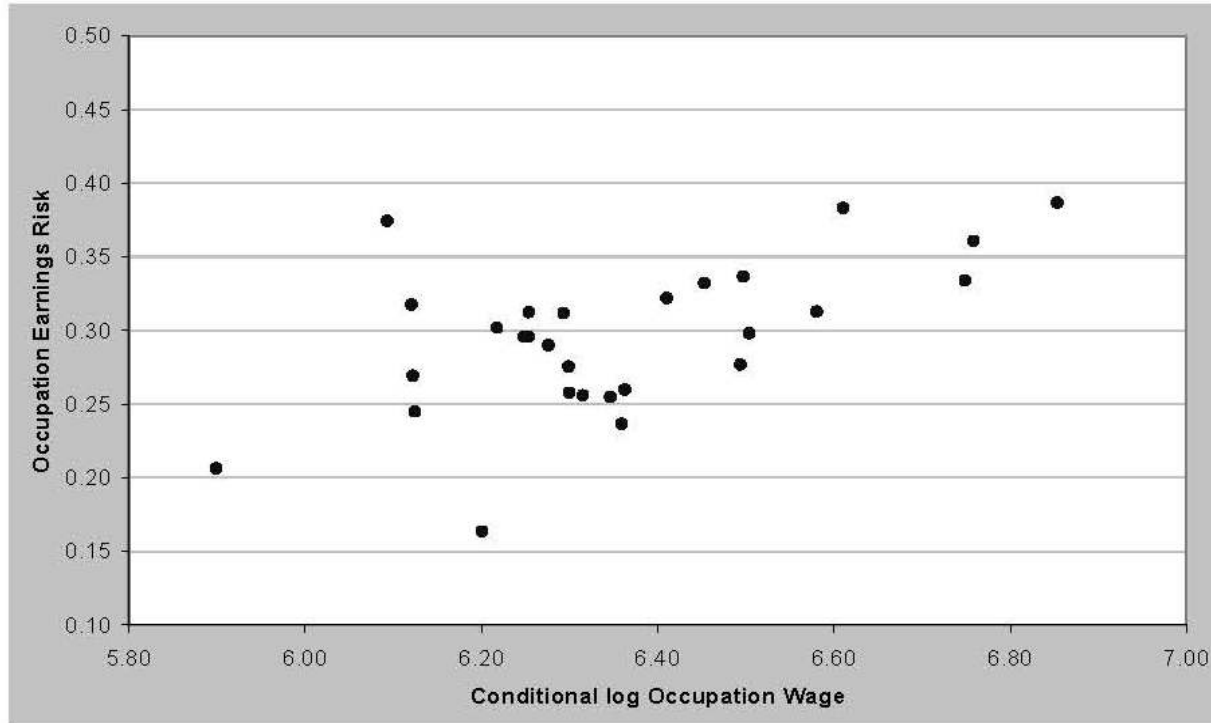
- Several other lab studies on this topic. Some signs that result might not be super robust:
  - Gneezy and Rustichini: no sign that homogeneous environments are better for women.
  - Vandergrift, Yavas, Brown: no gender differences in payment choices when people face the same task a number of times/learn their actual relative ability.
  - Dohmen and Falk: disagreement on importance of gender differences in risk attitudes in explaining gender differences in self-selection into different payment schemes.
  - But hard to compare across papers (tasks vary; payment schemes to choose from vary, etc)
- Relation to Babcock's multiple experiments, many summarized in book ("Women Don't Ask") on women and negotiation
  - Women do not negotiate as hard; men do not expect women to negotiate hard



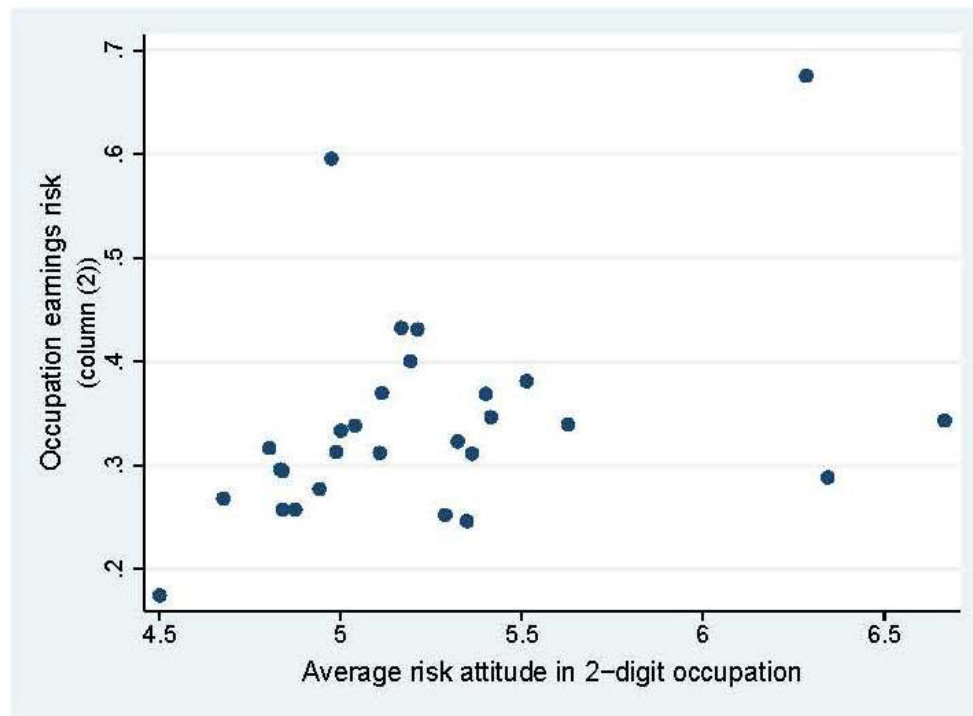
# Competition

- “Real world tests”
  - Closest “tests”:
    - Paserman: professional female tennis players are more likely to make unforced errors at crucial junctures of a tennis match; their play is more conservative/less risky as points become more important.
    - Lavy: rank order tournament that reward teachers for class performance – no gender differences +gender of other teachers in the competition does not matter.
    - Antonovics et al: Behavior on the Weakest Link; attempt to replicate game show in the lab. When stakes are low, women do better in the lab competing against women than competing against men; this disappears when stakes are raised.
  - More remote/closer to lab literature on attitudes towards risk:
    - Manning and Saidi: gender differences in sorting can explain only a small part of gender differences in earnings in UK establishment-based survey
    - Paarsch and Shearer: no differences in reaction to piece-rate incentives between male and female tree planters.
    - Manning and Swaffield: large gender differences in personality traits (including “things” that proxy for taste for competition); explanatory power of “psychological traits” for gender gap in early career wage growth is limited (but not inconsequential)
    - Falk et al. on risk attitude and occupational sorting:

**Figure 1: Earnings Risk and Mean Wage Premium**



**Figure 2:** Earnings Risk and Average Risk Attitudes Across Occupations



# Gender Identity

- Akerlof and Kranton formally introduces identity – a person’s sense of self – into economic analysis.
- “Man” and “woman” are two categories associated with prescribed behavior. Behaving in accordance with those prescriptions increases one’s utility.
- Application to occupational segregation: occupations are associated with the men and women categories; these gender associations affect one’s utility in working in those occupations.
- Microfoundation for men’s distaste for working with women (Becker); may also explain women’s slow entry into the labor force.
- The women’s movement as a force that reshapes gender associations with labor market work/jobs/tasks.
- Also applies to the economics of the HH. Housework allocation as a function of relative income between spouses. Not much follow-up yet on this work.

# Gender Identity

- Related models:
  - Goldin’s pollution theory of discrimination
    - Men want women to stay away from certain jobs because their entry would signal a decline in the required qualifications for these jobs.
    - Credentialization (with women entering professional schools) was an important factor in the “declining significance of gender.”
  - Benabou and Tirole
    - Complementary theoretical framework to Akerlof and Kranton; emphasizes management of beliefs and cognitive mechanisms leading to identity investments.

# Gender Identity

- Fortin: 25 OECD countries; anti-egalitarian gender role views (e.g. “men have more of a right to work”) associated with less female employment and large gender wage gaps.
- Fortin: HIV scare as an exogenous shock to gender attitudes – explanation for slowdown in female labor force participation gains since the 1990s.
  - Similar timing in Goldin and Shim.
- Charles, Guryan and Pan: cross-market differences in conditional gender gaps can be explained, in part, by differences across markets in the views held by men about the appropriate roles that women should play in the labor market and in society more generally.
  - Men’s gender role attitudes vs. women’s gender role attitudes. Need to compare more carefully.
- Pan: dynamics of occupational segregation – tipping
- Booth et al: part-time women are more satisfied with their working hours than full-time women; men’s life satisfaction unaffected by their partners’ working hours but increase if they are themselves working full-time. Lack of consistency of results between UK study and Australia study.

# Implicit Discrimination

- Focus is on unconscious stereotyping/discrimination, prejudice can be viewed as inevitable consequences of social categorization.
- Banerjee and Greenwald – IAT
- Most real world applications in economics so far have focused on race – however: Beaman et al.: variation in exposure to female political leaders; IAT linking leader's gender to good vs. bad; another IAT linking gender to domestic vs. Leadership tasks; reservation associated with less unconscious prejudice in the second IAT.
- Some field work in social psychology: Dasgupta and Asgari – coed education/female professors and performance on gender IATs among college-age women.
- Theoretical piece in law and econ on effect of anti-discrimination laws on implicit bias – Jolls – exposure reduces implicit bias.

# Nurture over Nature

- Where do gender role attitudes/stereotypes come from? Literature has pushed nurture/culture/upbringing as an explanation.
  - Vella: parental education
  - Farre and Vella/Crespi: intergenerational transmission of attitudes regarding the role of women in the family and in the workplace
  - Vella/Guiso et al/Heineck: religion
  - Fernandez et al: men with working mothers are more tolerant of working spouses; with more of these men around, women are more willing to invest in labor market skills – identification exploits WWII mobilization effort
  - Other Fernandez papers showing how “culture”/”norms” in the country of ancestry matters for fertility, labor force participation.
  - Lots of work in psychology on malleability of unconscious attitudes; contact hypothesis.



# Nurture over Nature

- Where do gender differences in preferences come from?
- Potential role for gender identity (and hence likely nurture).
  - Benjamin, Choi and Stickland: Are gender differences in preferences linked to the strength of gender identity? Does being a woman mean one should behave “risk averse”? Prime individuals with their social identity (gender, but also ethnicity/race). Are discount rates, risk attitudes affected when identity is made more salient? Results do not suggest strong association between patience/risk aversion and priming of gender identity. Not clear what to make of the results/could be that the primes were too weak.
- The importance of single-sex environments for women’s preferences. Hypothesis is that there might be more pressure for women to maintain their gender identity in schools where boys are present.
  - Booth and Nolen: study risk-taking preferences. Natural and experimental variation in gender composition of the environment (people from single-sex or coed schools; gender-mixed vs. single-sex experimental groups). Single-sex environment increases risk-taking among women. In another paper, qualitatively similar results re. choice to compete.
- Gneezy, Leonard and List: Khasi women (patriarchal society) more competitive than Maasai women (matriineal society) – existence result. (also perform public good provision experiments in these two societies.

# Nurture over Nature

- Where to gender differences in achievement (focus on math gender gap) come from?
  - Role model effects/teacher gender: Dee; Carrell, Page and West, Hoffman and Oreopoulos
  - Policy implication re. quotas, etc.
  - Sapienza et al:
    - gender gap in math smaller in more gender equal countries.
  - Levitt and Fryer:
    - No clear “socialization” mechanism in the micro data.
    - Zingales et al cross-country results not robust to expanding the set of countries; propose single-sex education hypothesis.

# Nature over Nurture

- Hormones (mainly)
- Baron-Cohen's "The Essential Difference"
- Sapienza et al: measure circulating testosterone in 500+ MBA students. Higher levels of testosterone associated with lower risk aversion among women, not men. High testosterone and low risk aversion predict choice of finance career (weak). Also some results on 2D:4D ratio (proxy for low prenatal testosterone/high prenatal estrogen exposure) predicting finance career choice.
- Coates, Gurnell and Rustichini: Measure 2D:4D ratio for a sample of male "high-frequency" traders in the City of London. 2D:4D predicts long-term profitability, how long they stay in business, more risk-taking.
- Financial risk-taking varies over the menstrual cycle for women.
- 2D:4D positively correlates with risk aversion, even after controlling for gender (Dreber and Hoffman). Men with lower 2D:4D more likely to reject selfish offers in neutral ultimatum games. High testosterone men more likely to reject selfish offers in ultimatum games.
- Question: what drives variation of in utero testosterone level?
- Cesarini et al: monozygotic vs. dizygotic twins – establish importance of genetic component for risk attitudes; attitudes towards giving. Role of environmental factors limited.

# Explaining Women's Advances in the Labor Market

- Roadmap:
  - Supply-side: rise in female education/rise in female labor force participation – rooted in:
    - Technology and fertility
    - Technology and home production
    - Shift in gender role attitudes
  - Demand-side: relative increase in demand for women's skills
  - Change in labor force selectivity
  - Decline in discrimination
  - Why the slowdown since the mid 1990s?
- As women become represented in leadership roles, more opportunity to study their behavior/how they are perceived in those roles:
  - Politics, business

# Technology and Fertility

- Goldin and Katz-The Power of the Pill:
  - Timing of diffusion of birth controls among young, unmarried college women coincides with increase in their entry in professional programs and higher age at first marriage. Most dramatic gains concentrated in the 1970s.
  - Discussion of main alternative explanations (with related timing), in particular legalization of abortion.
- Bailey – More Power to the Pill:
  - Considers pretty much the same experiment but outcome is now timing of first birth and LFP across *all* women (extensive and intensive margins). Decline in early childbearing; decline in “fertility dip” in female labor supply. Explains about 20 percent of increase in participation/hours between 1970 and 1990.
- Link to rise of feminism, shifts in gender attitudes, etc.
- Albanesi and Olivetti – Gender Roles and Medical Progress: advances in maternal health, infant formula help women reconcile work and motherhood.

# Technology and home production

- Greenwood et al: argue that consumer goods revolution “liberated” women from the home. Structural model suggests that the introduction of new and improved household technologies could explain more than half of the increase in female labor-supply.
- Bailey and Collins: question key assumptions of the structural model, which is that household technology only starts spreading as of 1940 – spreads before that/timing of diffusion off to explain big changes in female LFP in the US.
- More cross-country and micro studies:
  - Tavares: OECD panel – relate price of household appliances to female labor supply. Substantial effects.
  - Dinkelman: Rural electrification in South Africa.

# Demand Explanations

- Focus is on people skills, their rising importance, and the fact that women are particularly well endowed in those skills
- Weinberg: increase in computer use can account for over half of the growth in the demand for female workers. Consistent with computers de-emphasizing physical tasks.
- Borghans, Ter Weel, and Weinberg: people skills have become more important. Women are more represented in occupations where people skills are important. Computers appear to complement people's skills.
- Bacolod and Blum: focus on the price of cognitive and people skills. Large increases in the price of these skills (in which women are well endowed in) and decline in the price of motor skills (in which men are well endowed in) can account for about 20 percent of the narrowing gender gap. Also interested in relating this to overall rise in inequality. Welch's brains and brawn model.
- Black and Spitz-Oener: closing of the gender gap not just about the rise of interactive tasks. Women involved in relatively more non-routine interactive and non-routine analytic tasks. Large decline in routine task inputs for women but not for men. These relative task changes explain a substantial fraction of the closing of the gender gap. No price effects.

# Change in Selectivity

- Mulligan and Rubinstein: Stay-at-home women of the 1960s had high earnings potential compared to those who were working. During the 1970s and 1980s the pay for high-skill and professional jobs increased relative to the pay for low-skill jobs. This better pay may have induced women with high earnings potential to pursue careers rather than stay at home.
- Related to Black and Juhn: interested in the sharp rise in the share of female professionals. Argue that the economy-wide rise in skill demand has attracted educated women not just from other occupations, but also from non-participation. In other words, women can re-optimize better than men as the returns to working as a professional increases.



# Decline in Discrimination

- Timing appears off for AA to explain the sharp changes in the early 1970s.
- Increase in product market competition:
  - Black and Brainerd (globalization)
  - Black and Strahan (banking deregulation)
  - (Hellerstein, Neumark and Troske - correlation between profits and female share)
- Less reason for statistical discrimination as women's commitment to the workforce increases.

# Why the Slowdown in the 1990s?

- Blau and Kahn: explanation is not changes in human capital (women's HC relative gains in the 1980s comparable to the 1990s); occupational upgrading/de-unionization more favorable to women in the 1980s than 1990s; largest factor though is a much faster reduction in "unexplained" gender wage gap in the 1980s than 1990s - maybe labor force selectivity stronger in 1980s than 1990s, discrimination, unmeasured characteristics (such as commitment to labor market work), slowdown in the relative demand for intellectual/people skills over physical skills.
- Fortin: Gender role attitudes are found to be an important factor in explaining the slowdown in women's labor force participation since the mid 1990s. AIDS scare as a countervailing force in the early 1990s to the "Pill Revolution."

# Female Leaders

- Politics:
  - More left-wing/favor redistributive policies/child welfare (Edlund and Pande; Alesina et al; referendums in Swiss cantons; women's suffrage in the US; female policy makers in India); more women in politics associated with less corruption.
  - Economic explanations (e.g. rise in divorce); psychological explanations (e.g. women more socially minded).
  - Women's indirect influences: Washington, Oswald on daughters and voting.
- Business:
  - Small but growing representation of women in the executive suite.
  - Negative market reaction to the appointment of a female CEO; Wolfers on whether such a negative reaction is warranted.
  - Female CEOs and female representation lower down in the corporate hierarchy.
    - But see also evidence from public examinations in Spanish judiciary.
  - Female whistle blowers.
  - Female on boards/quotas

# Remaining Hurdles for Women

- Career/family tradeoffs and job design issues: contrast opt-out rates across various professional degrees/discuss possible explanations for these large differences across career paths
  - Goldin and Katz; Bertrand, Goldin and Katz; Leber Herr and Wolfram.
  - Pay penalty for part-time/non-standard employment
- Positive assortative mating
  - Bertrand, Goldin and Katz
- Closing of the gender gap is not making women any happier.

# Women's Well-Being

- Stevenson and Wolfers: Women are getting more educated, closing the labor market gap, yet are not getting happier relative to men; in fact, are getting less happy.
- What could be going on?
  - “Women’s lives have become more complex and their well-being now likely reflects their satisfaction with more facets of life compared with previous generations of women” (Stevenson and Wolfers)
  - Women are now having to deal with multiple selves/multiple identities
    - Importance of pay norms in shaping women’s relative well-being (Lalive and Stutzer)

# Women's Well-Being

- Interpretation issues:
  - The typical life satisfaction measures, such as that in the GSS or WVS is based on a global judgment, which at least implicitly involves a standard of reference. Women may have changed their reference group as their objective outcomes improved; women may now be more likely to compare their objective outcomes to that of men. Before, they may have mainly compared themselves to other women. Or , women still compare themselves mainly to other women when evaluating their life satisfaction, but these other women are also experiencing large objective gains.
  - Given difficulty in assigning hedonic interpretation to the decline in women's self-reported life satisfaction over time, try to improve our understanding of women's well-being with alternative (more objective) measures of happiness.

# Women's Well-Being

- One Approach: Time Use Data
  - Are women less happy today in the past because they are working a “second shift”?
    - Feminism (and other factors...) got more women into well-paid jobs
    - Increased amount of market work was not accompanied by a decline in non-market work (household chores, etc)...
  - So women are effectively now more likely to be working two shifts (market work + non-market work)
    - And work is not fun (while leisure is)
  - Aguiar and Hurst : Similar decline in market work + non-market work for women and men between 1965 and 2003:

# Women's Well-Being

- Another, complementary, approach: combining time use data with experienced utility data
  - Krueger: also relies on historical time use data
  - However, instead of assuming that work is not fun and subjectively deciding what *is* fun (e.g. subjectively deciding what is leisure), assign utility levels to specific activities based on reported hedonic/affective experience (“experienced utility”) as people engage in those activities.
  - Day Reconstruction Method (DRM)
  - Key finding: for men, gradual downward trend in the proportion of time spent in unpleasant activities; for women, no detectable trend in the proportion of time spent in unpleasant activities despite large changes in time allocation. So, no evidence of an absolute decline in affective utility among women, but some support for a relative decline.
- Digging deeper in DRM data to better understand how career/family conflicts are being experienced by women.



# Looking to the Future: The Trouble with Boys

- Goldin, Katz, Kuziemko: why have women overtaken men in terms of college completion and not simply caught up with men?
- College premia is higher for women; rise in divorce rate means women have greater economic responsibility now than before.
- Barriers to women's achievement have disappeared; men's behavioral problems have remained, maybe have gotten worse.
  - Jacob: Higher incidence of disciplinary problems can explain most of the female advantage in college attendance.
  - Lower non-cognitive skills for boys: impatience (Silverman); temperament (inhibitory control, perceptual sensitivity) - Heckman
  - Higher rate of criminal activity among boys
  - ADHD – gender differences in early brain development.
  - Sons at a disadvantage in those (more and more common) families with missing fathers/poorly educated fathers (Buchman, DiPrete; Black and Charles)
  - Adolescent boys –don't want them to make important educational choices when in the middle of puberty. C.f. work on educational tracking in Finland.