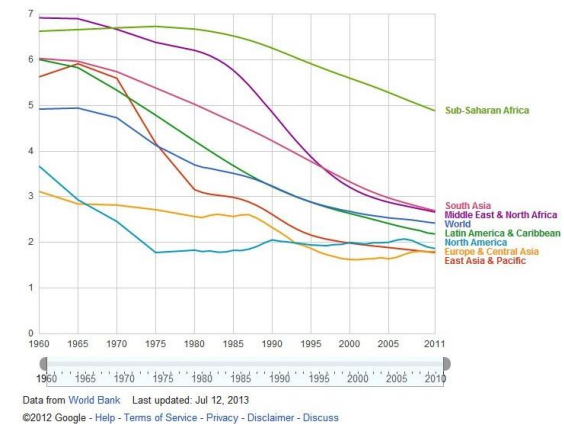


**When social status gets in the way
of reproduction in modern settings:
An evolutionary mismatch
perspective**

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Fertility Issues in Modern Contexts

- Two problems
 - high birthrates in developing nations: overpopulation, resource scarcity, unsustainability
 - low birthrates in developed nations: labor shortages, ageing populations
- Current ideas often fail to explain why
 - people in wealthier/modern circumstances tend to have less children (beyond broad economic/structural accounts)
 - developed East Asian countries have overtaken the developed West in low fertility
- Three aims
 - examines the psychological experience of individuals residing in modern settings
 - accounts for the fundamental motives underlying reproductive decisions (evolutionary mismatch approach)
 - looks at developed East Asian countries as a case study of how these dynamics play out



Social Status as an Adaptive Goal

- Social status plays an important role in regulating behavior in group-living species
- People respond to higher status individuals with respect and deference rather than antagonism
- Higher status individuals perceived as more attractive allies/mates
 - A strong mate preference of women
 - Men's reproductive outcomes can also improve when paired with high status women
 - children of high status parents have lower rates of mortality, healthier psychosocial functioning, and better social competitiveness later in life (e.g., Henz, 2019; Kaplan et al., 1998)



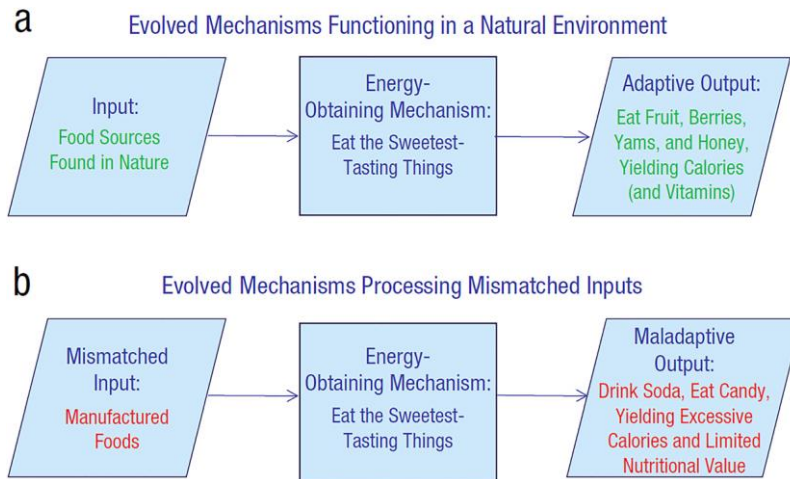
Adaptations to Manage Social Status

- The fitness costs and benefits of low vs high status selected for adaptations to manage social status, e.g.,
 - attention toward cues of dominance, confidence, and prestige (Gutierrez et al., 1999; Li et al., 2020)
 - self-evaluations of one's position in the status hierarchy (Van Vugt & Tybur, 2015)
 - motivations to maintain a decent standing relative to others (von Rueden et al., 2019)
- Under optimal conditions, these adaptations should improve our ability to live in groups, seek mates, and reproduce



The Evolutionary Mismatch

- Mismatch occurs when an adaptation fails to produce adaptive outcomes due to problematic (e.g., evolutionarily novel) inputs
 - e.g., moths flying toward lamps; the classic sweet tooth



- Mismatch due to evolutionarily novel inputs in modern societies can lead to an acute preoccupation with social status

(1) Social Status Disparities

- For the vast majority of human existence, people lived in small, egalitarian bands characterized by
 - resource scarcity
 - demand-sharing practices
 - lack of means for resource storage
 - intolerance toward hoarding (Boehm, 1999; Lewis et al., 2014; Peterson, 1993)
- People could only gain a higher social standing from factors like age and capabilities, not by accumulating resources and transmissible wealth
- People still cared about social status mainly as a way to be mindful of one's value to the group
 - motivates prosocial and cooperative actions
 - avoid having low status, seek to be at least on par with peers



(1) Social Status Disparities

- Social monitoring adaptations (e.g., social comparison, self-enhancement, social status anxiety) function well to maintain social standing when
 - social status gaps (especially in egalitarian hunter-gatherer tribes) are not so large that they cannot be closed
 - people have a good sense of social status relative to others
- In modern settings, however, social status disparities are stark and harder to overcome
 - the transition from nomadic to agricultural living enabled people to accumulate resources and monopolize economic niches
 - the ability to be distinguished on the basis of resources leads to today's levels of inequality
 - someone like Elon Musk can have >2 million times the net worth of the median American household
 - CEOs can make 300-1000 times what their workers do



(1) Social Status Disparities

- According to the social status anxiety hypothesis,
 - high social inequality makes people anxious about their position in the social hierarchy (Wilkinson & Pickett, 2009)
 - individuals living in highly unequal countries tend to
 - worry that others will look down on them because of their job/income (Layte & Whelan, 2014; Paskov et al., 2013)
 - measure their self-worth in terms of financial wealth (Walasek & Brown, 2019)
 - have a greater interest in material goods (Frank, 1999; Walasek & Brown, 2015)



(1) Social Status Disparities

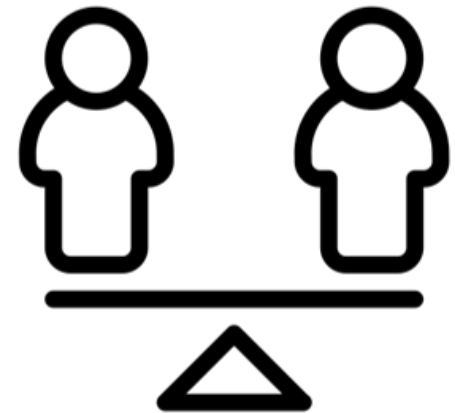
- People's status perceptions derive from relative standings than absolute values

A		B
Your annual salary:		Your annual salary:
\$30,000		\$50,000
	Vs	
Societal average:		Societal average:
\$10,000		\$70,000

- Thus, people can perceive themselves as not having enough despite the abundance of resources in modern societies
- As people respond to the pressure to keep up (e.g., finding better jobs, making more money, displaying status through wealth and material possessions), these preoccupations can overshadow other pursuits like social and romantic relationships

(2) Social Comparisons

- People evolved to rely on comparisons with others as diagnostic of social value
- When others are seen as a threat to self-evaluations, people pay more attention to them and engage in behaviors to make up for self-perceived inadequacies (Garcia et al., 2013; Muller & Butera, 2007)
- Aimed at
 - maintaining social value (Hill & Buss, 2007)
 - enhancing desirability as social allies/romantic mates (Gilbert et al., 1995)
 - avoiding social exclusion (Leary, 2005)



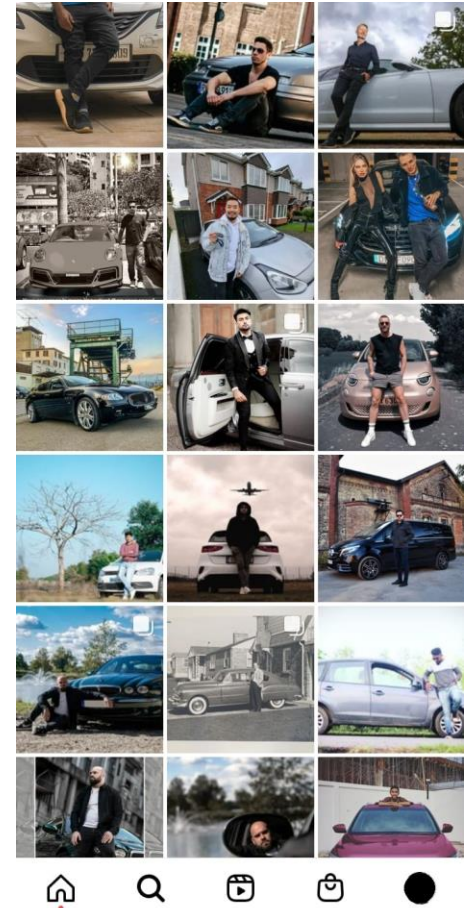
(2) Social Comparisons

- A person in an ancestral village setting would compare with only up to ~150 closely related individuals (Dunbar, 1992), but modern urban dwellers can interact and compare with much larger numbers of unrelated individuals
- Densely populated modern cities have no shortage of richer, more educated, better-looking individuals
- Chronic exposure to such individuals in modern environments has been found to be associated with
 - higher levels of perceived competition and status anxiety (Frank, 1985, 1999)
 - status-seeking behaviors, e.g.,
 - wealth displays (Frank, 1999)
 - competitiveness (Garcia et al., 2013)
 - compensatory prosociality (Telle & Pfister, 2016; Van Lange, 2008).



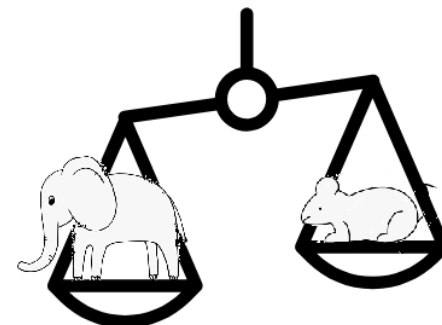
(2) Social Comparisons

- Mass media (e.g., television) and social media (e.g., Facebook, Instagram, Tiktok) expand the range of perceived individuals that people may attend to and care about
- As social media users often carefully select and curate the things they upload on social media platforms,
 - only the most perfect aspects of people’s lives (e.g., flattering photographs, fun holidays, and work successes) are displayed
 - causing avid social media users to experience envy and dissatisfaction with their own lives
- These various factors pressure those living in modern environments to enter into a rat race to “keep up with the Joneses”, leaving less time and energy for other pursuits that are critical to fertility and reproduction



(3) Life History Strategies

- Trade-offs between pursuing a slow versus fast strategy (social status vs reproduction)
- Crowdedness and resource competition
 - Densely populated modern environments shift priorities toward social status (building individual capacities, delaying reproduction) as a means to better compete for available resources (Sng et al., 2017; Rotella et al., 2019)
- Safety and stability
 - Safe and stable modern environments shift priorities toward having fewer children and investing more in them (e.g., Borgerhoff Mulder, 1998; Wilson & Daly, 1997)
- Safe and resource-abundant modern settings may cultivate populations of slow strategists who react to increasing social status disparities and competition by grinding their reproductive life to a halt



East Asian Case Study

- The East Asian cultural sphere refers to regions/countries/groups derived from and influenced by the Confucian philosophy and culture of ancient China
- Today's developed countries with predominantly East Asian populations include Japan, South Korea, Hong Kong, Taiwan, and Singapore
- Declining fertility in the East Asian region was first observed in Japan as birthrates dropped from 4.54 in 1947 to replacement-level fertility (2.1) in 1957
- This decline began ~20 years later for three other East Asian countries: in 1960, Singaporean, South Korean, and Taiwanese women were still having ~6 children each on average but dropped to 2.1 in 1975 in Singapore, 1983 in South Korea, and 1984 in Taiwan



(A) Slow Life History

- East Asians seem to exhibit slower life history strategies
 - Some biological/genetic indicators (Rushton, 1995, 2010; Minkov & Bond, 2015; Meisenberg & Woodley, 2013)
 - Psychobehavioral indicators
 - longer temporal orientation (Gao, 2016)
 - greater risk aversion (Guo et al., 2022; Opper et al., 2016)
 - greater self-restraint (Markus & Kitayama, 1991)
 - greater sexual conservativeness (Ahrold & Meston, 2008)
 - greater parental investment (Sun, 1998)
- relative to other cultures

(A) Slow Life History

- East Asian individuals experiencing economic uncertainty and competitive stress in modern settings exhibit increased concerns with social status...
 - “Education/competitiveness fever” in South Korea and other developed East Asian countries produce obsessive concerns with educational and career achievement (Beach, 2011; Mok & Jiang, 2017; Nakamura, 2003)
 - Asians place greater value on education and career success as a basis of self-worth than other cultures do (Twenge & Campbell, 2002; Pew Research Report, 2012)
 - East Asians value social status in potential mates more highly than expected (Chang et al., 2011; Li et al., 2011; Thomas et al., 2020; Yong et al., 2022)

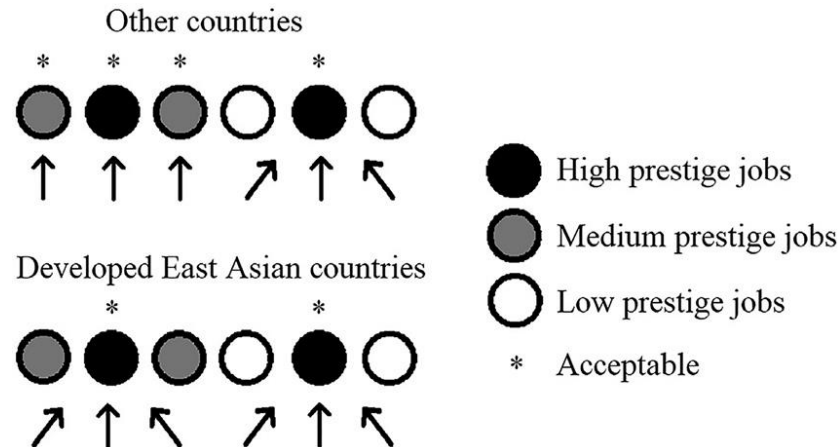


(A) Slow Life History

- ... At the expense of reproduction
 - Education/competitiveness fever underlies the postponement of marriage and childbearing (Anderson & Kohler, 2013)
 - As few children are born out of wedlock in Asian societies, the age of first birth has also shifted in line with age at first marriage (Suzuki, 2003)
 - Further driven by East Asian women who study longer, enter the workforce later, and invest more time in work to improve their chances of reemployment after raising children (Choe & Retherford, 2009)
 - East Asians may also forgo mating and remain single and childless—the “Sampo” in South Korea and “Satori” in Japan refer to an emerging generation of young adults who have given up on courtship, marriage, and having children (Gietel-Basten, 2019; Lim, 2021)

(B) Endowed Social Status

- East Asians rely more on “endowed” social status, or social status conferred through formal means (e.g., educational qualifications and occupational rank), as opposed to less formal sources of status (e.g., dominance, charisma, popularity)
- Less ambiguous and less socially disruptive, but more time-consuming and intensifies the obsession with education, career, and building wealth
- Preoccupation with prestigious jobs drives avoidance of jobs associated with low status



- Singaporeans perceived available jobs to be less acceptable than Australians did (Yong et al., 2019)
- Reduces affordances to gain social status, which especially for men is crucial for mating success

(C) Materialism

- The possession of expensive, luxury material goods functions as a strong indicator of SES because of its role in costly signaling and conspicuous consumption
- Materialistic attitudes are associated with
 - lower value placed on relational warmth (Richins & Dawson, 1992) and social relationships (Burroughs & Rindfleisch, 2002)
 - reduced satisfaction with family life (Nickerson et al., 2003)
 - poorer marital outcomes (Kasser & Ryan, 2001; Carroll et al., 2011)
 - less positive attitudes toward marriage and parenthood (Li et al., 2011; Groat et al., 1997)
 - childlessness for men (Claxton et al., 1995)



(C) Materialism

- East Asian consumers account for more than half of the \$80bn luxury market, exceeding the US and Europe combined (Chadha & Husband, 2007)
- Higher levels of materialistic attitudes and behaviors in developed East Asian countries (e.g., Podoshen et al., 2011; Schaefer et al., 2004)
- Li et al. (2011) showed that
 - Singaporeans endorsed materialistic values more than Americans did – related to lower life satisfaction and less favorable attitudes toward marriage and having children
 - Singaporean women had the highest materialistic standards within the sample – associated with greater emphasis on partners' earning capacity (reduced affordances for women too)
- Men pressured to have a decent job and earn enough before they feel ready to find a partner or settle down (Yong et al., 2019)
- Some men entirely give up on mating effort—in Japan, ~85% of women own a Louis Vuitton product while a growing number of men (dubbed as “herbivores”) are remaining single as they feel incapable of meeting women's standards (Ghaznavi et al., 2020)



Ronnie Chieng on Asian Materialism

- https://www.youtube.com/watch?v=O_KpLrHCAX0



Ideas?

- Reduce sources of mismatch to increase motivations for mating/reproduction
 - reduce perceptions of population density and competition
 - increase perceptions of niches that people can pursue (e.g., increase job prestige, increase the range of acceptable pursuits)
 - reduce social status disparity (e.g., create social norms of inclusiveness/cooperation, see also Wilkinson & Pickett, 2009 e.g., progressive taxation, company democracy)
- Make having and raising children easier
 - free childcare
 - more supports for families
- Reduce sources of dating anxiety, increase dating literacy
 - currently in South Korea: dating classes in university (see also Li et al., 2020 confidence can be trained)

