The Impact of IQ on Marriage Likelihood: Gender Differences in the UK

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Abstract

This paper explores the relationship between intelligence (IQ) and marriage likelihood, with a focus on gender disparities, particularly in the UK and China. Previous studies have shown that higher intelligence increases the likelihood of marriage for men, while it decreases for women. Through an interdisciplinary analysis of evolutionary, sociological, and biological factors, this paper seeks to explain why such disparities exist. The research highlights that evolutionary pressures traditionally associate intelligence in men with resource acquisition, making them desirable partners, whereas highly intelligent women often face societal resistance due to gender norms that devalue their career achievements in favor of caregiving roles. In the context of China, Confucianism and traditional gender roles further accentuate these disparities, particularly through the persistent practice of hypergamy. The paper concludes with a discussion of how evolving gender roles, media representation, and policy changes can influence future marriage patterns for intelligent women in both the UK and China.

Keywords

IQ; Marriage Likelihood; Gender Differences; Evolutionary Psychology; Sociological Factors; Biological Factors; Confucianism.

1. Introduction

Marriage and intelligence have been extensively discussed among researchers over the years (Mascie-Taylor, 1989). Some studies conclude that intelligence positively correlates with marriage likelihood for both men and women (Aspara et al., 2018), while others find a stronger correlation between high IQ and marriage in men only (Von Stumm et. al, 2011). A study conducted by researchers at four British universities reveals that for every 15-point increase in IQ, a man's likelihood of marriage increases by approximately 35%, whereas a woman's likelihood decreases by about 58%. This significant gender disparity prompts an in-depth exploration into the reasons behind this phenomenon.

As a Chinese individual who has witnessed the rapid transformations in urban Chinese society over the past 16 years, I chose to contextualize these findings within this specific cultural setting. The polarisation between rural and urban China is significant, with stark differences in values and expectations due to income inequality. Urban China presents a unique societal background with distinct values and cultural expectations different from the West. For example, China emphasizes filial piety, academic achievement, and collectivist values, while

the West prioritizes individualism, holistic education, and personal freedom. Therefore, China is a unique setting to study how IQ and marriage relate. The rapid modernisation and economic development in Chinese cities have brought about changes in social norms, particularly concerning marriage and gender roles. By examining these cultural and social dynamics, I aim to understand how higher intelligence differentially impacts the marriage prospects of men and women. This essay will first delineate the evolutionary, sociological, and biological factors influencing the interplay between intelligence and marital likelihood. It will then examine Chinese society as a case example to illustrate these dynamics.

2. Evolutionary factors

Extensive survey data has consistently shown that men and women seek different qualities in a relationship (Whyte et al., 2021). Men are generally more influenced by physical attractiveness due to its association with reproductive potential, while women prioritize non-physical characteristics like socioeconomic status, ambition, character, and intelligence, which are seen as indicators of resource acquisition and stability. These preferences align with evolutionary theories, suggesting that women's mate selection is driven by traits that enhance the survival and reproductive prospects of their offspring. Studies confirm that women's preferences for traits like socioeconomic status and ambition are significantly stronger than those of men, supporting the parental investment model. This model contends that because women invest more in offspring, they seek partners with resources and stability to ensure their children's success (Feingold, 1992). This evolutionary perspective explains why high-IQ men, who typically have higher socioeconomic status (Irwing & Lynn, 2006) and ambition (Simonton & Song, 2009), are seen as desirable partners due to their ability to provide resources and stability.

3. Sociological Factors

However, while evolutionary theories provide a framework for understanding historical mate selection, contemporary sociological influences, including cultural norms, economic conditions, and gender roles, significantly shape modern relationships. The influence of media, education, and evolving gender roles cannot be overlooked. In many societies, there is a growing emphasis on equality and partnership in relationships, challenging traditional notions of male and female roles. Studies have shown that in cultures with greater gender equality, the differences in mate preferences between men and women diminish significantly (Zentner & Mitura, 2012). This suggests that socialization and cultural expectations, rather than innate evolutionary drives, significantly impact mate selection. Moreover, the rise of dual-income households and shared parenting responsibilities indicates a shift towards valuing companionship, mutual respect, and shared goals over traditional markers of attractiveness and resource provision. These changes highlight that contemporary mate selection is influenced by a complex interplay of socio-cultural factors that can override evolutionary predispositions.

4. Biological Factors

Studies reveal that when men and women achieve similar intelligence scores, the brain structures associated with intelligence differ significantly between the sexes. Men demonstrate more significant correlations between grey matter volume and IQ, especially in the frontal and parietal lobes (Haier et al. 2005). The frontal lobe is critical for functions such as problem-solving, judgment, and motor function, while the parietal lobe is involved in processing sensory information and spatial orientation. Key regions for men include the right and left superior frontal gyrus, which are associated with higher cognitive functions like attention and memory, and the left parietal lobe, important for mathematical reasoning and visuospatial processing (Haier et al., 2005). The enhanced cognitive abilities in men may align with the qualities women prioritize, such as intelligence and problem-solving skills, which are indicators of resource acquisition and stability.

In contrast, women exhibit fewer gray matter correlations but have extensive white matter connections linked to IQ, primarily in the frontal lobe (Haier et al., 2005). White matter is essential for communication between different brain regions, facilitating the integration and processing of information. The significant gray matter areas for women were located in the right frontal lobe, involved in emotional regulation and decision-making, and Broca's area, which is crucial for language production and comprehension. These findings suggest that while men may rely more on gray matter in regions associated with spatial and problem-solving tasks, women may benefit from enhanced connectivity facilitated by white matter, supporting complex cognitive processes such as language production and multitasking (Haier et al., 2005). While women may benefit from enhanced connectivity facilitating complex cognitive processes such as language production and multitasking, these traits are not as strongly aligned with the traditional qualities men seek in relationships, such as physical attractiveness and reproductive potential.

These structural differences may help explain why higher IQ increases the likelihood of marriage for men but decreases it for women. Men with higher IQs, who excel in areas traditionally valued by women, such as problem-solving and resource acquisition, are seen as more desirable partners. On the other hand, women with higher IQs, who may excel in areas like emotional regulation and multitasking, might face societal resistance due to traditional gender roles that do not prioritize these traits in female partners. This societal bias can make highly intelligent women less likely to marry, as their professional and cognitive achievements may be perceived as conflicting with traditional expectations of femininity and caregiving roles.

5. China: A Case Study

Confucianism, founded by Confucius (551-479 B.C), has played a crucial role in shaping Chinese society, particularly in defining gender roles. One of his key principles is the concept of "Yin" and "Yang" - two opposite but complementary forces at work in the cosmos (Blackburn, 2008). Men are associated with "Yang", representing hard, assertive and dominating qualities, while women are "Yin", representing softness, passiveness and reflection. These roles have historically guided family dynamics, social expectations and individual behaviour in China. Further elaborations on gender roles were made by scholars during the Song Dynasty, such as Zhu Xi. These Neo-Confucian thinkers reinforced traditional

gender roles by proposing the "three-fold dependency", where a woman follows her father when young, her husband when married, and her sons when widowed (Rosenlee 2023). These norms were designed to preserve family order and continue to shape gender norms today.

Examples of these traditional gender roles can be observed in urban China today where men are still expected to be the family's breadwinner, while women are expected to be primary caregivers focusing on domestic responsibilities, often at the cost of their careers. This was evidenced in a study (Qian & Qian, 2015), which showed that unemployment in men had a stronger negative effect on happiness compared to unemployment in women. Thus, high-IQ men are more strongly motivated to succeed in their careers and earn higher incomes, making them more attractive marriage partners in a society that still strongly values this gender role (Aspara et al. 2018). In contrast, high-IQ women, often pursuing advanced education and demanding careers, may struggle to balance these traditional domestic roles. This conflict may result in their career-driven side prevailing, leading them to prioritise career ambition over traditional family roles.

Moreover, hypergamy, the practice of women marrying men of higher social, economic, or educational status, is a persistent phenomenon in Chinese culture (Yu &Xie, 2015) which helps explain why intelligent men are more likely to marry while intelligent women are less likely to marry. As people face intensified labour market competition and rising living costs, the need to marry up becomes more pronounced. High-IQ men, often achieving higher educational and economic status, find themselves more attractive as marriage partners due to their ability to provide financial stability. Conversely, high-IQ women, who attain similar educational and career milestones, face a shrinking pool of suitable partners (Piotrowski et al., 2016). This finding is especially prominent in urban areas where educational and career opportunities are more accessible for women. Moreover, this dynamic is further complicated by the societal preference for age differences, where older men are perceived as having higher status, making it more challenging for equally successful women to marry. The stigmatization of 'leftover women' — highly educated women who remain unmarried — is a direct consequence of traditional gender roles in modern Chinese society.

6. Conclusion

In conclusion, the interplay between evolutionary, biological, and sociological factors provides a comprehensive understanding of why intelligent men are more likely to marry while intelligent women are less likely to marry. Biological research reveals that men and women exhibit different brain structures associated with intelligence, influencing their cognitive abilities and, consequently, their attractiveness in the marriage market. These findings align with evolutionary theories suggesting that men and women seek different partner qualities to enhance reproductive success and resource acquisition. Sociological factors, such as gender roles, add a layer of complexity to these dynamics by shaping individual expectations in various spheres of life, including marriage and careers.

This dynamic is clearly illustrated in the context of contemporary Chinese society, where traditional gender roles continue to influence marriage patterns. Future research should continue to explore these dynamics, considering interventions and policies that can help mitigate the societal pressures on high-IQ women in China. Initiatives such as diverse media

representation and positive portrayals of single women can play a crucial role. By fostering an environment that values the contributions of both partners equally, society can move towards a more equitable and fulfilling framework for marriage and family life.

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