

# Absent fathers and sexual strategies

Sarah E. Hill, Randi P. Proffitt Leyva and Danielle J. DelPriore take an evolutionary approach and uncover some surprising findings

As Father's Day is drawing near, many of us may find ourselves thinking about our relationships with our fathers. For some of us, this may include memories of fishing trips and baseball games. For others, it may bring back feelings of disappointment and anger about times that our fathers were absent from our lives. Regardless of whether your relationship with your father was something to cherish or something that you would just as soon forget, fathers play a unique and important role in their children's development, particularly for daughters.

## Time well spent

Relative to males of other species, human males (or, 'men', as they are more commonly known) invest an exceptional amount of time, energy, and resources in caring for their offspring (Geary, 2000, 2005). A large body of research suggests that this is time well spent. For instance, numerous studies have found an association between father presence and a decreased risk of illness and infant mortality relative to children from single-parent households (Figueredo et al., 2006; Geary, 2000, 2005). As children begin to explore the world around them, paternal involvement is associated with increased self-confidence for environmental exploration and risk-taking (Paquette & Bigras, 2010). Because fathers more than mothers often encourage children to push boundaries (Brussoni & Olsen, 2011), father

involvement is also associated with less fear of failure (Teevan et al., 1986) and higher self-esteem (Harper & Ryder, 1986) relative to children who grow up without their biological father. Male parental investment of time and money is also linked with a number of desirable social outcomes, including greater academic achievement in childhood, higher socio-economic status (SES) in adulthood, and increased upward social mobility (Amato, 1998; DeBell, 2008; Geary, 2005; Kaplan et al., 1998; Mulkey et al., 1992).

Not surprisingly, whereas the presence of one's father is found to have a positive influence on developmental outcomes, father absence is reliably associated with

a variety of dubious psychological dispositions and social outcomes. For instance, research has demonstrated that children from father-absent homes are less able to delay gratification than children from two-parent homes (Mischel et al., 1989). They also demonstrate more interpersonal problems, poorer psychological adjustment, and more depression and anxiety than boys and girls from intact families (Jane Costello et al., 2006). As young adults, they consume more alcohol (Kenny & Schreiner, 2009), are more likely to be incarcerated (Anderson et al., 2002) and demonstrate more hostile behaviours relative to youth growing up with their biological father. Finally, many of these risks appear to be heightened for children and adolescents who – in addition to father absence – lack a positive relationship with their mother (Mason et al., 1994), are low in socio-economic status (Abdalla, 1992) or are living with mentally ill mothers (Jensen et al., 1989).

## Paternal investment theory

Although father absence has important implications for wellbeing across the sexes, much of the literature has focused on the effect that father absence has on the developmental and reproductive outcomes exhibited by girls as they approach and enter adulthood. Much of this body of work is informed by paternal investment theory (PIT), which is an evolutionary-based framework that predicts that fathers play an important role in the regulation of daughter's sexual development (Trivers, 1972; Draper & Harpending, 1982; Ellis, 2004; Ellis et al., 2003; Ellis et al. 2012).

PIT posits that natural selection designed girls' brains to detect and encode information about their fathers' social behaviour and investment as a basis for calibrating their own reproductive strategies. According to this perspective, if a girl



Father-absent girls display a host of outcomes often experienced by early developing girls

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grows up in a home with a high-investing father, this sends her a message that (a) she lives in the type of environment that favours heavy parental investment by mothers and fathers and (b) that the benefits of parental investment (in terms of long-term reproductive success) are high. In these types of environments, it is advantageous for women to invest heavily in their own development before reaching sexual maturity and beginning to reproduce, because it will improve their ability to create highly competitive offspring. On the other hand, if a girl grows up in a home where paternal investment is lacking, this is believed to send the opposite message: male investment cannot be relied upon in this environment and the benefits of investment in an individual offspring are insufficient to outweigh the costs of forgoing additional reproductive opportunities. In these types of mating systems, it is evolutionarily advantageous for women to shift their sexual development and decision-making in ways that promote a 'quantity over quality' mating strategy (Draper & Harpending, 1982, 1988), which is characterised by precocious sexual development and earlier age of first reproduction.

Much evidence suggests that father absence shifts daughters toward accelerated development, sexuality and reproduction. For instance, researchers have repeatedly demonstrated that early paternal investment is an important determinant of pubertal timing, with daughters of less involved fathers experiencing earlier menarche relative to girls growing up with more involved fathers (Ellis et al., 2003; Ellis et al., 1999; Quinlan, 2003). Moreover, father-absent girls display a host of outcomes often experienced by early developing girls – including increased sexual promiscuity, higher rates of teen pregnancy, earlier first sexual intercourse and reproduction, and difficulty forming

## Meet the authors

'While walking the halls of our respective high schools, the different developmental tracks taken by female classmates intrigued our research team, even at an early age. Whereas some girls preferred to devote their time to friends or extracurricular activities, other girls took a "faster track," hanging out with older guys (and sometimes becoming pregnant before graduation). These early observations prompted our mutual interest in understanding the wide variation in



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developmental outcomes and mating behaviour. Using our training in evolutionary theory, we began to systematically investigate the numerous ways that early childhood environments shape later life trajectories. Although it seems obvious that a person's childhood experiences would influence who they are as adults, what is less obvious is that many of the socially undesirable outcomes related to adverse early life circumstances – such as teenage pregnancy and sexual risk-taking – make good evolutionary sense in the context in which they develop. The development of successful interventions to prevent many of the health problems overrepresented in poor and father-absent families requires a familiarity with the latest research on the important role that one's early environment plays in shaping decision-making and behaviour in adulthood.'

stable long-term relationships – with the most pronounced effects being observed for girls whose fathers were absent from an early age (Belsky et al., 1991; Chisholm et al., 2005; Draper & Harpending, 1982; Quinlan, 2003). For example, Ellis and colleagues (2003) examined the association between father absence and girls' sexual behaviour in a demographically diverse sample of girls over a 13-year span. The results revealed that adolescent girls who experienced father absence early in life were twice as likely to have had sexual intercourse and seven times more likely to have been pregnant by age 17 relative to girls whose

fathers were present during their early development. Moreover, these effects appear to be specific to girls whose fathers are voluntarily absent, with daughters of widows being spared from these outcomes (Draper & Harpending, 1982; Hetherington, 1972).

Although much research has found an association between father presence/absence and daughters' sexual decision-making, as scientists, we must be cautious about inferring a causal relationship between two variables without conducting an experiment. Indeed, whether fathers exert a causal impact on daughters' sexual psychology is still

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widely debated due to the lack of randomised experimental research. Given that assigning women to experience father presence or absence before measuring their sociosexual behaviour would pose some obvious ethical dilemmas (not to mention numerous practical problems), we recently decided to try the next best thing: have women write about a time that their father was absent (or present) for an important life event and then measure various features of their sexual decision-making. With this goal in mind, we conducted five experiments testing the effects that reminders of father absence have on women's sexual decision-making (DePriore & Hill, 2013).

Our findings provided consistent experimental support for a causal link between fathers' investment and daughters' sexual decision-making. College-aged women who described a time their biological father was absent demonstrated greater activation of sexual concepts and more permissive sexual attitudes. For instance, women who described their father's absence were more likely to complete a series of ambiguous word stems with a sexual word (e.g., completing \_A K \_ D as 'NAKED' as opposed to 'BAKED') than women who described a time their father was present and supportive during a time of need.

In addition to activating sexual concepts, priming father absence had an effect on women's explicit attitudes toward casual sex. Specifically, women expressed greater acceptance of – and greater willingness to engage in – casual sexual relationships after describing their father's absence. They also reported desiring to have sex with a greater number of male acquaintances and expected to have sex with a greater number of men in the future, effects that could not be accounted for by negative emotions that may have been evoked by remembering their father's absence.

Furthermore, these women harboured more negativity toward the use of condoms, an effect that was not observed



Women expressed greater acceptance of – and greater willingness to engage in – casual sexual relationships after describing their father's absence

among college-aged men who described the presence of their father. Although they reported a greater willingness to take sexual risks, women who described their father's absence were no more willing to take risks – or indulge in immediate gratification – in other domains (e.g. they were no more likely to report difficulties saving money or holding themselves to a strict diet). In accordance with an abundance of previous research, the findings of our experiments were also specific to descriptions of father absence. In other words, women who described the absence of their mother or of a close friend did not demonstrate similar shifts in their projected sexual decision-making.

### Next steps and limitations

Although this body of research suggests that paternal involvement may be a key contributor to daughters' sociosexual development, there are a number of

limitations on what is known about this influence. For example, although PIT posits that paternal involvement provides women with unique information about local mating systems (e.g. the quality and availability of male partners) that women use to guide their sexual decision-making and behaviour, this assumption has never been explicitly tested. A critical next step in this research programme is to examine whether paternal disengagement cues actually influence women's expectations regarding the level of investment they are likely to receive from future mates and/or the necessity of male investment. Although the presence of such conscious shifts is not critical to paternal investment theory, if observed, these results would provide powerful support for this theoretical perspective. Examining the impact of paternal absence/disengagement on women's perceptions of men, the mating system and the likelihood and necessity of receiving male investment

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represents a critical next step for research on PIT.

Further, it is possible the relationship between paternal investment and daughters' sexual decision-making may derive from a family-wide environmental confound. These are causal factors that differ between families but are shared within families (e.g. socio-economic status, religion). A family-wide environmental confound could cause low paternal investment, on the one hand, and lead to faster reproductive strategies in daughters, on the other. For example, poverty is associated not only with elevated rates of family disruption/father absence, but also heightened levels of risky sexual behaviours (RSB). If poverty (or some other family-wide environmental factor)

is the underlying cause of the relations between low-quality paternal investment and faster reproductive strategies in daughters, then the 'effects' of paternal investment are in fact spurious (i.e. they arise from an environmental third variable).

It is similarly possible that the impact of paternal investment on daughters' reproductive strategies may derive from a family-wide genetic confound. Behaviour geneticists refer to this type of association as a gene-environment correlation. Parents who pursue faster reproductive strategies may pass on genes for faster reproductive strategies to their children (Lummaa & Clutton-Brock, 2002). Consistent with pursuing a fast reproductive strategy (e.g. low pair bond stability, low parental investment), such parents are also at increased risk of becoming physically absent or disengaged. Thus, daughters who experience low-quality paternal investment may develop a faster reproductive strategy because of higher genetic loading for traits associated with

the fast strategy. Indeed, any factor – whether environmental or genetic – that is shared by parents and offspring that influences reproductive strategies and correlates with low-quality paternal investment could account for the relations between these variables.

Research is also needed to examine the impact of paternal engagement on the calibration of daughters' attachment styles (Bowlby, 1969). Belsky (1997) postulates that attachment style, developed by offspring in the first five to seven years of life, based on parent-child interactions, including responsiveness to the child's physical and emotional needs and overall parental warmth, may be an integral environmental component in the development of fast versus slow reproductive strategies. For example, securely attached mated men and women generally employ a slower mating strategy in which they invest heavily in fewer offspring, while those with insecure-resistant and insecure-avoidant attachment styles have low parental investment, display a more opportunistic approach to mating, have more children and invest far less in their development. As such, daughters with parents, especially fathers, possessing insecure attachment styles have predictably younger ages at first sexual debut and first reproduction. The generational transfer of attachment styles is well documented by developmental psychologists and can certainly represent a family-wide environmental confound that has been shown to impact reproductive strategies (Belsky, 1997).

### Doomed without Daddy?

Although research suggests that paternal engagement is associated with many desirable outcomes, this does not mean that your children are doomed to a suboptimal developmental trajectory if you are a single mother. Patterns that emerge when examining data are simply that: patterns. They do not account for the tremendous amount of variability that

is observed between individuals within the same circumstances. If you need evidence of this, consider that children raised without their fathers have grown up to become Pulitzer Prize winning authors, Nobel Laureates, even the President of the United States. Fathers matter, but having one does not guarantee success and growing up without one is not a prescription for failure.

Furthermore, it is important to note that some research finds that the impact of paternal disengagement on children's developmental outcomes is mediated, in part, by maternal depression and financial problems that can be part and parcel of a father leaving (Culpin et al., 2014). The mother's response to these factors can play an important role in buffering (or exacerbating) the developmental impact of a missing father on a child. There may also be steps that mothers can take – such as exposing their children to other supportive male role models, such as teachers and relatives – to reduce the developmental impact of father absence. Research on this topic is needed to provide single parents with guidance on how to best set their children up for success when they come from non-traditional family structures.

The meaning of fatherhood is continually redefined as society changes. This is an important point, as it often gets neglected in discussions of family, which tend to focus on the changing roles of women. As we make these changes, it is important that our new definitions of fatherhood reflect the important role that fathers can play in their children's development. This is particularly true when it comes to daughters and their sociosexual development. Although the results of this body of research do not provide concrete answers to many of these questions, they do suggest that fathers may have an important impact on their daughters' sexuality into adulthood. As we continue to update our definitions of family and parenthood, it will be important to examine how these changes impact development.

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