



Assortative parenting and assortative cross-parenting: New views of parental preference for selected children

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ABSTRACT

Two novel parenting terms are introduced into the literature on parent-child relationships. The first term, *assortative parenting*, references a familiar, but poorly defined concept regarding parental affinity for a given child. The second term, *assortative cross-parenting*, denotes a previously unrecognized relationship phenomenon, namely parental attraction to a child who displays favored qualities expressed by the parent's partner. These terms derived from interviews with same-sex couples, but easily apply to heterosexual couples, as well. The proposed concepts and labels should initiate new lines of inquiry that can illuminate unstudied aspects of family dynamics. Given that improved reproductive techniques and revised societal attitudes are continually creating novel family structures, studies of personal relationships and the families in question would benefit by admitting these concepts into ongoing research programs.

"I liked to think that Bonnie was you, a little girl again. She was so like you, so willful, so brave and gay and full of high spirits, and I could pet her, and spoil her—just as I wanted to pet you."

Rhett Butler, in *Gone with the Wind* [1]

1. Introduction

The origins of parental preference for selected children in a family have been investigated and debated by human developmental researchers. Studies have variously found that birth order, sex, genetic relatedness, health, quality of sibling relations and perceived parent-child similarities and differences in appearance, personality, interests, and talents are associated with "parental favoritism," as judged by adolescent and adult child respondents [2–4]. I will argue that parental favoritism is an inappropriate label for a broad concept that fails to capture some vital factors influencing parent-child relations. Another caveat is that research in this area has been based largely on the views of children, rather than their parents.

Assigning a name to a principle, concept or process facilitates control, communication and clarity [5]. "New conceptions require new terms." (p. 181) [6]. These two citations reference developments in mathematics and social justice, respectively, but I will cite examples

from the field of evolutionary psychology. This is done for illustrative purposes and because evolutionary concepts relevant to the present paper will be considered in the discussion.

The term *evolutionary psychology* was most likely used by Ghiselin in 1973 [7] and later popularized by Barkow, Cosmides, and Tooby in 1992 [8]. Barkow et al. (1992) explain that "Evolutionary psychology is psychology informed by the fact that the inherited architecture of the human mind is the product of the evolutionary process." (p. 7). Mayr, in 1961 [9], popularized terms distinguishing between two forms of causation: proximate (immediate, individual level causes of development or physiology) and ultimate (historical, population-level statistical causes in evolutionary biology), both used today. Hamilton's 1963 theory of altruism was assisted by Maynard Smith's 1964 term *kin selection*, to denote the self-sacrificing behaviors performed by individuals for the benefit of genetic relatives [10].

This commentary introduces two new terms into the early human developmental literature: *assortative parenting* and *assortative cross-parenting*. These terms derive from the well-known phenomenon of assortative mating, namely the non-random pairing of significant others, based mostly on behavioral similarities, such as verbal cognition and values [11]. These new terms emerged from interviews I conducted with several married same-sex male couples who became fathers of twins via egg donation and surrogacy. In two cases, each father had contributed

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sperm for the creation of one of the two embryos, yielding heteropaternal twins; these twins are genetically related as half-siblings, sharing 25 % of their genes, on average, by descent. This assisted reproductive procedure replays the natural process of *superfecundation*. In a third case, the twin embryos were created with sperm from each father, but with eggs provided by different donors. These twins share no common genes by descent. It is theoretically possible, but practically impossible, for such twins to occur naturally [12]. A family with heteropaternal twins is displayed in Fig. 1.

Superfecundation occurs naturally, yielding heteropaternal twins if a woman engages in sexual relations with different men within a given window of time. Specifically, once eggs are released they can last for twelve to forty-eight hours, while sperm are viable for seven to ten days [13,14]. Of course, if a woman engages in sexual relations with the same partner close in time, she may conceive twins that are superfecundated, but not heteropaternal. Superfecundation is presumed to be rare, but some cases may be unreported or even undetected.

2. Novel concepts

Assortative parenting denotes the attraction and affinity experienced and expressed by a mother or father toward a child in whom that parent perceives shared characteristics. Such feelings have been expressed by parents of very young children, even within the first two years of life. This concept is not unrecognized, yet has been poorly defined in the extant literature. It does not imply favoritism over other children in the family, but rather a unique like-mindedness felt by the parent toward a

particular child that may eventuate in enhanced mutual support and understanding. Relevant to this discussion is the extended twin-family research design, a method of choice for exploring genetic and environmental influences on behavioral traits [15]. It arises when monozygotic (MZ) and dizygotic (DZ) twins and their unrelated partners conceive and raise children. In these families, MZ twin aunts/uncles segue into the “genetic mothers/fathers” of their co-twin’s children, while DZ twin aunts/uncles maintain conventional family relationships. Research shows that MZ twin aunts/uncles express great social closeness toward nieces/nephews, relative to DZ twin aunts/uncles, possibly rooted in their perceptions of behavioral resemblance [16].

Assortative cross-parenting, in contrast, is a label for a novel phenomenon. It conveys the previously overlooked concept that a parent can feel a special affinity with a child who expresses traits that are common to his or her significant other. In fact, such traits are likely to be those that initially attracted the parent to the partner and which the parent continues to value. Examples include calmness, exuberance, and happiness. Again, this feeling by a parent does not imply favoritism or differential love for one child over another. Instead, it implies a particular facet of the parent-child relationship that may lay the basis for a unique form of attraction and/or affiliation that is not shared with other children.

Assortative parenting and *assortative cross-parenting* are not limited to same-sex couples and/or to families with twins. However, the fact that each gay father I spoke with created just one twin possibly allowed the traits of his partner to be perceived with greater clarity than might be true of heterosexual couples who conceive jointly. The quote at the start



Fig. 1. Heteropaternal twins with their parents. Photo credit: Images of Life by Ashli.

of this essay, albeit from a work of fiction, beautifully captures the sentiments that a parent may feel toward a child whose behavioral predispositions are reminiscent of the other parent. Of course, given the random combination of genetic factors transmitted across generations, as well as changing environmental contexts and contingencies, it is possible that some parents do not perceive their partner's traits in a child. The members of one same-sex male couple with whom I spoke failed to find such commonalities, but both fathers understood the concept and endorsed its credibility.

3. Twins and another informative pairing

3.1. MZ twins

MZ twins show greater resemblance than any other pair of individuals, yet twin studies of intelligence, personality and other behaviors consistently yield correlations equal to less than 1.0. Therefore, environmental effects, including prenatal (e.g., intrauterine growth restriction), perinatal (e.g., mode of delivery), and/or postnatal influences (e.g., illnesses) can variously conspire to create early differences between MZ cotwins [17]. (Recent work has revealed genetic differences between MZ twins, although full significance of these differences has not been described [18]). DZ cotwins also show early differences due to the events listed above, but also due to genetic differences between them.

Observational data have found that mothers of prematurely born infant twins consistently responded more positively toward their healthier baby at eight months of age, relative to his or her less healthy cotwin. The psychological mechanisms driving this behavior are uncertain, especially given the small sample size, but they align with predictions from evolutionary approaches, i.e., parental investment theory [19]. For example, care for a particular child should maximize parental reproductive fitness, while reducing care for another child. However, the possibility that mothers perceive greater trait resemblance between themselves (or their partners) and features of the healthier twin cannot be dismissed; it is likely assortative parenting and/or assortative cross-parenting work in concert with other factors. Longitudinal MZ twin research has found that three-year-old twins who experienced less negative parental feelings than their cotwin showed greater self-control at age seven. Similarly, twins' self-control differences at age four predicted negative parental feelings at age seven, suggesting a bidirectional effect. (This association was not detected between the ages of seven and nine years [20].) Again, differential parental perceptions of similarity

toward a child, between themselves and/or their partner, may be linked to cotwin differences in relatively positive and negative parental feelings and actions.

3.2. Biracial twins

The label *biracial twins* is an unfortunate choice for DZ twins born to mixed race couples. That is because these twins are equally biracial, but have inherited different sets of genes from their parents, causing them to look quite different in appearance *and* to possibly resemble one parent or partner more than the other in behavioral and physical characteristics [21]. (Nontwin siblings born to biracial couples can also inherit different sets of genes underlying appearance and behavior.) I have been studying a small, but growing, sample of biracial twins to better understand the twins' different life experiences and associated parenting challenges. Such twins are also well-suited to examining assortative parenting and assortative cross-parenting, especially given opportunities to track parent-child relations during early infancy and beyond. Two pairs of biracial twins are shown in Fig. 2a and b.

It is possible that physical resemblance is a more salient factor for parental affinity when infants are young, but may change over time as children's abilities and personalities emerge with greater clarity during development. At present, firm conclusions regarding parental attraction to a specific biracial cotwin cannot be drawn, but several parents have emphasized the importance of similarity in personality, rather than appearance, as a factor affecting time spent with one young twin. Various family members (e.g., grandparents, aunts and uncles) also express views regarding which twin resembles which parent, possibly contributing to assortative parenting and assortative cross-parenting processes.

4. Summary: rethinking family dynamics

Assortative parenting and *assortative cross-parenting* are not mutually exclusive processes. Parents may experience the former with one child, the latter with another child, or both with a single child. Either could conceivably foster envy or jealousy by one child toward another if he or she witnessed exceptional understanding between a sibling and a parent. This understanding, if present, would most likely apply only to selected behavioral domains or activities. It is also conceivable that a parent might experience assortative parenting and/or cross-parenting with an adopted child whose traits mimic those of the self or partner. Regardless,



Fig. 2. a. These same-sex dizygotic “biracial” male twins have a Caucasian mother and African American father. b. These opposite-sex dizygotic “biracial” twins have a Caucasian mother and Black Hispanic/Latino father. Photo courtesies: The twins' families.

at the practical level, acknowledging and embracing children's individual differences remains an essential component of effective parenting.

Assortative parenting and cross-parenting are meaningful at multiple theoretical levels. Proximal interpretations would acknowledge the happiness and satisfaction parents derive from nurturing the interests and talents of a child that they see in themselves and/or their partner. They would also enjoy the close attachment likely to emerge from that association. Ultimate explanations might acknowledge the increased chance of altruism directed toward a particular child, given the genetic relatedness of parent and child, i.e., 50 %. Greater altruism might also be directed toward a child who expresses traits shared with the partner—such traits may be those that explain the couple's attraction, both as a companion and co-parent. However, while greater altruism is not necessarily implied, it is conceivable as a consequence of the like-mindedness and mutuality arising from assortative parenting and cross-parenting.

4.1. Future lines of inquiry

The concepts and labels described herein promise to initiate new lines of human developmental inquiry for understanding early and evolving family dynamics. This is especially true today, given the novel families that are continually evolving, due to improved reproductive techniques and revised societal outlooks [22]. Researchers might track the allocation of resources by parents to children for evidence of differential distribution. For example, a sports-minded parent might support the interests of an athletically talented child at the expense of a child inclined toward more sedentary activities (assortative parenting). It would also be worth exploring if a parent, who was enamoured of and benefitted from their partner's extraordinary emotional understanding, perceived this ability in a child and made concerted attempts to nurture it (assortative cross-parenting). Parents' recordings of time spent alone with each child and the nature of the activity would be another informative approach to isolating these processes. Comparing outcomes from assortative parenting and cross-parenting in adoptive and biological children raised together could be insightful. Interestingly, but not surprisingly, successful adoptions are more likely those in which children and parents perceive similarities between them [23].

These proposed studies would benefit from an indirect approach—parents rarely admit to favoritism or preference when it comes to their children. Furthermore, as stated above, I believe that concepts such as like-mindedness that eventuate in unique forms of parent-child support and understanding are more refined reflections of assortative parenting and cross-parenting than preference or favoritism.

Parents may be unaware of, or even deny, treating children in ways that align with their own traits and/or their partner's traits. Their actions may masquerade as favoritism, causing specific children to feel variously overlooked and dejected. Parental knowledge of assortative parenting and assortative cross-parenting may help parents apply rearing practices in more balanced fashion, thus mitigating unfavorable child reactions. Professional awareness of these new terms and concepts may assist them in alleviating family tensions. It is my hope that giving names to these family processes will provide the control, communication and clarity they deserve.

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Author contributions

The author was solely responsible for the crafting of this brief report. This included conceiving the idea, conducting the literature search and composing the manuscript.

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Nancy L. Segal: Conceptualization, Data curation, Project administration, Writing – original draft, Writing – review & editing.

Declaration of competing interest

The author has no conflict of interest to declare.

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