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Genetic Connection And Relationships In Narratives Of Donor-Assisted Conception

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Abstract

Donor-assisted conception diverts genetic connection from parent and child to donor and offspring. This article examines ways in which the contributions of genes and relationships to the meaning of family are explained in the narratives of donors, recipients, and offspring of donated gametes and embryos. More than 80 people were interviewed and subsequently consulted about their narrative accounts, which reflect the canonical narrative of families based on genetic connection. Some parents concur with this narrative and struggle to accommodate the lack of genetic connection within their understanding of the family. Others emphasise relationships while simultaneously affirming the significance of genes by ensuring the same donor for each child. Simple categorisation is impossible. As donors, parents, and offspring construct narrative interpretations of donor-assisted conception, they reveal the complex interaction in the meaning of genes and relationships, and of negotiations between those whose lives include donor-assisted conception and their social context.

Keywords: donor-assisted conception, family relationships, narrative, genetic connection

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Introduction

Genes have become important receptacles of meaning in Western culture. Donor-assisted conception diverts genetic connection from parent and child to donor and offspring. In these circumstances, how do genes contribute to the meaning of 'family'? Adults who contemplate becoming parents through donor-assisted conception must weigh the primacy of genetic relatedness between parents and children against social parenthood. If they proceed, parents must decide whether to maintain the appearance of conforming with the expectation of genetic connection between parents and children. Donors, too, must interpret and explain the meaning of their donation in their own conceptions of family. Furthermore, as the significance of genes increases, it is paradoxical that practices of secrecy and confidentiality ensure that thousands of offspring of donor-assisted conception remain ignorant of at least half their genetic heritage. This article examines the ways in which the contributions of genes and relationships to the meaning of family are explained in the narratives of donors, recipients, and offspring of donated gametes and embryos.

Assisted reproductive technology challenges what used to be taken for granted as the basis of the family in Western cultures: 'Having sex, transmitting genes, giving birth: these facts of life were once taken as the basis for those relations between spouses, siblings, parents and children which were, in turn, taken as the basis of kin relations' (Strathern 1992, p. 5). Possibilities for the separation of genes, gestation, and the social family have opened up the need for new theories about—new narratives of—'the facts of life'. There is no challenge to the traditional narrative of the facts of life when donor insemination (DI) is conducted in secret. However, as those donor-conceived people who discover their origins call publicly for openness and their need (and right) to know the identity of their progenitors, and as legislation is gradually introduced to this effect, attempts are being made to add to the canon of possible lives (and possible origins) in our culture.

Artificial insemination by donor has a long history, occurring at least since the late nineteenth century (Gregoire & Mayer 1965; Hard 1909). Conception using donated eggs and embryos has been possible from the 1980s (Trounson et al. 1983). Legislation was initially to formalise property inheritance in DI, reflecting historical genealogy through the male line (see Rumball & Adair 1999).

Different reporting criteria and undocumented instances of DI outside fertility clinics make it difficult to assess the number of donor-conceived people worldwide, although it is clear that they form a significant and increasing component of assisted conception births. Assisted conception accounted for almost 2% of all births in Australia and New Zealand in 2000 (Dean & Sullivan 2003). Thousands of donor-conception births occur annually in the UK (HFEA 2000) and the US (CDC 2001). Gamete donation is primarily anonymous.

The combination of relatively sophisticated lay understanding of genetic inheritance and increasing use of genetic testing means that it is no longer possible to expect that donor-conceived people will remain ignorant of their conception. Nevertheless, offspring, at least of DI, are typically not informed of their origin (e.g. Durna et al. 1997; Golombok et al. 2002; Leiblum & Aviv 1997; van Berkel et al. 1999), even when legislation demands it, as in Sweden (Gottlieb, Lalos & Lindblad 2000). Those who are informed of their conception may still have an unidentifiable progenitor.

Genetic knowledge is recent but pervasive. It has been argued that the resort to genes is now generally taken as 'the firm and scientific basis for understanding what it is to have one's own child' (Alpern 1992, p. 149): the transmission of genes is accepted as the essence of

becoming a parent. However, in his analysis of what makes a 'real' parent, Alpern asks what we are to make of a child who has only recessive genes from one parent. Is that parent less 'real' than the parent whose genes are dominant? Neither can a genetic link guarantee a family.

Science and technology have been identified by some cultural analysts (e.g. Finkler 2001) as the forces behind the increasing significance of the gene. Finkler characterised the debate around the nature of kinship and familial relationships as an argument between positivism and constructivism. Other, feminist, analysts see the dominance of genetic continuity as the expression of a patriarchal, masculine need (e.g. Corea 1985). Becker (2000, p. 134) argues that, 'In societies in which descent is traced through both parents but children usually take the father's name, as in the United States, the use of a [sperm] donor poses a cultural threat to patriarchal traditions'.

Among anthropologists, lively arguments about the nature of kinship have been revived by reproductive technology, including donor-assisted conception (e.g. Carsten 2000; Edwards 2000; Finkler 2001; Strathern 1995). It has been claimed that technological developments in reproduction contribute to the privileging of genetics in emerging cultural narratives of reproduction (e.g. Franklin 1995). A cultural emphasis on genetic connection has to some extent, according to Finkler, compensated for the postmodern weakening of family ties through divorce and increasing geographic instability: 'The more social processes tend to distance people from family and kin, the more biomedicine tends to move them closer to consanguinity' (Finkler 2001, p. 247). In turn, the increased significance of genetic connection may reduce the significance of relationships and interaction within families. We may expect this to challenge those who, conversely, must derive meaning from social relationships within the family in the absence of genetic connection.

Some of the scant research on donor-conceived people has concluded that they experience a sense of genetic discontinuity (e.g. Turner & Coyle 2000), recalling the concept of 'genealogical bewilderment' first applied to adopted people (Sants 1964). (The validity of the concept has been challenged: see, for example, Humphrey & Humphrey 1986; Walker & Broderick 1999.) Turner and Coyle reported that their 16 participants, who had learnt of their donor conception as adults, wanted to know and have a relationship with their semen donors and felt that others failed to understand the importance to them of genetic completion. The European Study of Assisted Reproduction Families concluded that the absence of a genetic link between father and child does not interfere with the development of a positive relationship between them (Golombok et al. 2002). However, the eldest of these children was 12; most of the children had not been told of the absence of a genetic link; and it is possible for good relationships between genetically unconnected parents and children to coexist with a sense of genetic discontinuity and a desire to learn of one's genetic ancestry.

In her study of women in Australia who had disclosed to their children their donor origins, Ryan (2002) found that, even though they talked about relationships, nurturing, and shared experiences, the women's accounts invoked the narrative of blood connections making a family, and explained non-normative family formation as 'risky'. Similarly, Becker (2000, p. 64) concluded that 'American views of reproduction are so focused on biology that many people find other ways of seeing reproduction implausible'. Even in lesbian-headed families in which children have been conceived by self-insemination it can be difficult to play down the genetic relationship (Donovan 2000). Heterosexual parents who have no conscious desire to subvert the hetero-normative narrative of the family may find their unwilling subversion to be even more confronting. Becker advocated DI in preference to the more expensive ICSI (intracytoplasmic sperm injection) which she says upholds the patriarchal

ideologies of fatherhood by using the father's own genetic material (Becker 2000, p. 135). These and other arguments about the need to overthrow the patriarchal obsession with genes run parallel to and in conflict with claims by donor-conceived people of the harm caused to them by genetic disruption (e.g. Blyth, Crawshaw & Speirs 1998; Franz & Allen 2001; Hewitt 2002). The many theoretical and positional perspectives in the debate over genetic connection and social relationships in the understanding of family and identity demonstrate the multi-faceted meanings of genes, as well as the persistence of allied binary conundrums: nature-nurture and biology-culture.

The research reported in this article arose from the recognition that the meaning of donor-assisted conception has complex ramifications that could benefit from being comprehended within narrative theory (e.g. Brockmeier & Carbaugh 2001; Bruner 1991; Good 1994). Its personal and political significance made it necessary to ensure the inclusion of those for whom donor-assisted conception was likely to yield a range of meanings. The research was designed, therefore, with the goal of 'working out how the things that people do make sense from their perspective' (Ezzy 2002, p. xii), using the stories people construct to interpret experience (Kirkman 2002b). I set out to court rather than control for complexity, to look for explanation and meaning, and to include the interpretations of all three major characters in the story: donors, parents, and offspring. I report here one aspect of an investigation of the meanings of identity and family in donor-assisted conception: the ways in which genes and relationships are explained as contributing to the meaning of family in autobiographical narratives.

Method

As a researcher who has personal experience with DI (Kirkman & Kirkman 2002), I have been rigorous in ensuring that I listen to the stories of others rather than hearing only an echo of my own. The research method has been designed to incorporate the collaboration of participants in the verification of narratives for analysis. It would be inappropriate to pretend that I am disengaged; but then, as Bauman (2000) reminds us, the fiction of scholarly neutrality in social research should always be challenged (see also Charmaz & Mitchell 1997).

Participants

An announcement seeking donors of sperm, eggs, and embryos, those who had become or were attempting to become parents as a result of such donations, and donor-conceived adults was placed in newsletters (Infertility Network Canada, Australian Donor Conception Support Group, IVF Friends Australia, ACCESS Australia's Infertility Network), distributed among infertility clinics in Australia, and published in the Australian Woman's Day magazine and The Age newspaper (Victoria). The announcement stated that the researcher was a psychologist who had a child as a result of donor insemination.

This method of obtaining participants draws on a wider field than samples selected from clinic populations, which exclude self-inseminators and adult offspring. Volunteers were recruited without restricting their cultural context, both to expand the range of sources of meaning and because the literature suggests that similar debates and concerns occur in all countries in which donor-assisted conception is practiced. Furthermore, modern communication means that research results and opinions are transmitted rapidly around the world.

Data Collection And Analysis

Interviews were conducted between September 2000 and May 2002. I interviewed 32 participants in person, 20 by email, 18 by audiotape, 16 by letter, and 1 by telephone. All began with the general question, 'Please tell me your story of donating/receiving/being born as a result of donor sperm, eggs, or embryos'. More specific but similarly open-ended questions followed as required. Demographic data were collected at the end of each interview.

Data collection and analysis in narrative research are part of an iterative process undertaken by the researcher, usually in consultation with the research participants and in reference to the literature. The task of interpretation begins during data collection, as the researcher seeks further explanations and pursues particular lines of inquiry (see Ezzy 2002).

Oral interviews were transcribed; all interviews were edited to follow the conventions of written texts. I sent each participant a draft of his or her document for amendment and approval, usually about 12 months after the interview, often with additional questions. This was done for ethical reasons and to ensure consistency among narratives gathered from different media; to allow participants to correct any misinterpretation; and to discover new events and narrative revision. Given that the research process itself becomes an instrument in narrative revision, continuing contact with participants both acknowledges and draws on this interaction of the researcher and the researched.

Throughout the process of interviewing, editing, further communication with participants, multiple readings of the approved narratives, and immersion in the literature, I explored various interpretations of the meaning of genes and relationships. The search was not for variables but for meaning. Because narratives were complex and subject to reinterpretation, specific numbers or percentages have been avoided in the discussion that follows. Pseudonyms are used throughout the article.

Results and Discussion

Demographic Information

The 87 participants (68 women, 19 men) comprised 35 DI parents, 21 donor egg parents, 12 egg donors, 12 offspring, 5 sperm donors, 5 embryo donors, and 2 donor embryo parents; some had dual roles, such as DI recipient and egg donor. They were resident in Australia (68), Canada (9), US (6), UK (2), and Argentina (2). Ages ranged from 7 to 59 (median 41). Apart from the child at primary school (whose mother submitted his interview), completed education ranged from full or partial secondary school (29) to PhD (3) (mode: college/university). Most (59) were in female-male partnerships; the rest single/separated (24) or in same-sex (4) partnerships.

Meanings Of Genes And Relationships

These accounts of donor-assisted conception reveal that meaning is derived from both genes and relationships in the understanding of self and family. The relative contribution of genes and relationships to meaning varies not only among participants as a whole but for individual people according to time and circumstances, in accordance with the current salience of each. The discussion begins with examples reflecting the canonical narrative of the dominance of the gene. It moves through the other extreme of an emphasis on relationships, to the position occupied by most of the participants in which genes and relationships are held in dynamic tension. After exploring some of the ways in which the

emphasis can change, the discussion concludes with an indication of the positions adopted by donors, parents, and offspring. Most parents in this study, unlike those in population, had told or planned to tell their children of their conception. Many had not told those outside the family.

From *'Reproducing my genes' to 'Our experiences shape us' 'Genes are everything'.*

As well as revealing the canonical narrative of genetic descent, these accounts incorporate the discourse of reproductive determinism and 'the selfish gene' (Dawkins 1976). Edgar, for example, explained that he became a sperm donor as a university student after his fiancée broke off their engagement, 'mostly as an outlet for a biological imperative I felt. I wanted to reproduce my genes'. The way in which the attitudes of other people were reported also indicates the significance of genes. Inez, who used donor eggs, described how her mother was 'devastated' that her grandchildren 'wouldn't be genetically linked to her,' and insisted on telling close relatives of Inez's late father, Michael, that her first child was 'not going to genetically be part of the family'. It was important that they were not misled into believing that Michael's genes were being perpetuated, and that they did not develop a relationship with the baby under false pretences. Thereafter, Inez's mother has done her best to ensure that others remain ignorant of the donor conception. (She has also become a devoted grandmother.) Similarly, Tomi reported that her mother had difficulty accepting her lesbian relationship as a 'real' family and Tomi's non-biological daughter, Rita, as a granddaughter: 'she thinks the donor's parents are Rita's grandparents. Even telling her that they don't exist in Rita's life doesn't take that away from her, so she almost can't conceptualise the world other than with a biological connection'.

Another parent, Holly, who is separated from her husband, reported being asked whether he would have joint custody of their DI-conceived children 'given he is not their genetic father'. Holly and her husband share parental care. Holly's acquaintances had also made strenuous attempts to stress physical similarities between her husband and their children. People who question the propriety of joint custody in a father who is not the genetic progenitor of his sons are clearly assuming that a relationship cannot supplant genes. Those who work hard to underplay or simulate genetic connection also reveal that genes are significant. Holly herself emphasises relationships while not denying the genetic contribution of the donor, but cannot assume that society supports the continuity of anything other than genetic connection.

Naomi acknowledged the canonical narrative in much stronger terms when she condemned 'this infatuation with the gene': 'I guess it's the age of the Human Genome Project and genetic therapy. ... It's almost as if genes determine who we are, rather than them being a template upon which environment and experience build a person (DI Mother). Naomi's narrative was shaped by her resistance to the valorisation of genes. She did not, however, discount the significance of the genetic 'template', and imported semen from the US to ensure that information was available about the donor for her children. (Naomi had learnt from the Internet about both the availability of identifiable donors and the growing demand by donor-conceived people for information about their donors. She also felt that they could choose among a wider range of donors—about whom more information was provided—on the Net than they could through clinics in her State, which Naomi described as 'paternalistic'.)

Other parents had constructed their own narrative identities within the canonical narrative, thus undermining their sense of legitimacy as parents. Yolanda was concerned about having to tell her children that they were conceived from donated eggs: 'It makes me feel so worthless and inferior again, just when I am enjoying being a "real" mother. ... I just hope that they will not think less of me'. Yolanda's account (among others) establishes that the

gestational connection of an egg recipient mother cannot be relied upon to overcome the lack of genetic connection. Women do indeed take comfort from gestating their babies (Kirkman 2003a), and gestation has been found to compensate mothers who have used donor eggs (Becker 2000, p. 148)—biology can mediate genes and relationships—but the lack of genetic connection may remain a meaningful absence.

Genes were undoubtedly significant among the donor-conceived adults in this research. Some report an uncanny sense of connection to other offspring of the same donor. Wendy, for example, says that she feels much closer to her genetic half-siblings whom she met as an adult than to her adopted sister with whom she has lived since adolescence: 'It's a really interesting thing to realise what the blood thing does'.

The political as well as the personal significance of 'the blood thing' is evident in some participants' concern about adoption and the forced removal of Indigenous children from their families. Evan has donated semen to women he knows, on the understanding that their children have a right to know him. His views have been reinforced by 'discussions about the rights of adoptees … to pursue contact with their biological parents' and by 'coming to terms with the trauma of the stolen generations of Aboriginal and Islander children'. Evan, who is himself neither adopted nor an Indigenous Australian, believes that gamete donation should occur only when offspring can know their donors; his political awareness inclines him to affirm genetic connection as fundamental. That he also values relationships is evident in his account of the network among the families now associated by using him as their known donor.

Some parents struggled to accommodate an emphasis on relationships within the canonical narrative of the genetic connection between parents and children. One sperm donor, Neil, speculated on what it would be like for the man in a couple who has used DI: 'This is our baby but it is not actually my baby'. This captured the position of some DI fathers. Naomi said that her husband is 'a wonderful parent' even though it grieved him to be unable 'to conceive a child of his own genes':

> I hoped that he would see the experience as positive and a great opportunity, rather than getting stuck in the loss and grief. At times he would get angry, and sometimes he'd say, 'Well, it won't be my child; it will be your child', and I would remind him that we knowingly and lovingly made this child; that I would never had done it without his full participation and blessing. As such, it was his child. The donor hadn't intended to make our baby; they'd intended to provide biological material to a bank, probably for money, but it was our will and our intent that created the baby, and to that extent he was in every sense the father (*DI mother*).

Naomi struggles to counter the power of the gene by asserting the importance of relationships and intention.

Gillian, a DI mother for whom the scientific understanding of genes is important, has difficulty in establishing a role for the donor in family relationships and her children's narrative identity. She is aware of 'always looking for my genes in them and much less looking for their genetic father's genes'. Gillian finds her genes in her daughter's appearance but not in her son's; she is concerned that it 'might be difficult for him later in life: … I think as his face develops they are going to say, "Those eyes are not Gary's".' They have talked about genetic inheritance with their children as part of teaching them about scientific understanding:

> Angus already understands the concept of genes to a certain degree. He says, 'I've got green eyes because I've got those genes'. But he doesn't understand,

> though, … that he has green eyes because those genes came from a third person (*DI mother*).

Gillian and Gary's children were aged four and two. They had not been told that donor sperm was used to conceive them, although their parents intend to do so. Disclosure may contribute to developing a way of incorporating the donor into their narratives of family and identity, although Gillian and Gary's desire to maintain the secret within the family could complicate matters (see Kirkman 2003b).

Gillian decided not to donate their remaining embryos to infertile friends because those embryos would grow into genetic siblings of their two children, and 'I couldn't cope with watching them bring up what I would consider our children'. The significance of genetic connection means extra work for relationships in its absence. Colin said,

> I'm building a relationship with my child. ... The fact is that we are not genetically related and we are both going to have to come to terms with this. I have to come to terms with the fact that I am the end of the line (genetically) (*DI father*).

'It is the parenting and the relationship that is key'.

At the other extreme (and less frequently) was an emphasis on relationships, where they were interpreted as contributing nearly all meaning to a sense of family. This was often a self-conscious means of making the best of one's circumstances: of interpreting experience most beneficially (in what Kermode 1967, refers to as 'a consoling plot'; see Kirkman 2002a). Lucy derives both personal and political meaning from rejecting the dominance of genes, saying that 'it is our experiences/environment that shape us': 'I don't see why our responsibility to one another should be limited to our genetic linkage. Surely you could argue that the "blood is thicker than water" argument has been humanity's greatest down fall (*potential egg and sperm recipient mother*). (Lucy also argued that offspring have a right to genetic knowledge and, should they want it, connection.)

Parents can construct their narrative of family so persuasively in terms of relationships that they contradict their parallel acceptance of 'scientific' explanation. Frank, for example, said unequivocally of his DI daughter that 'Linda is not related to the donor, genetically or socially'. Frank and his wife, Frances, recognise the valorisation of the gene in the canonical narrative, but have chosen not to undermine it by overt resistance; they want to maintain secrecy because others may over-emphasise the donor and call him the 'real' father. By this means, Frank and Frances paradoxically sustain the canonical narrative and support the significance of genetic connection between parent and child through the appearance of enacting it. (Frank and Frances want to conceal their use of a donor also because they feel it will cause their daughter pain when she cannot identify him.) Just over a year after their first interview, Frances explained, in response to my query, that Frank 'got a little over-zealous' in denying a genetic connection between his daughter and the sperm donor:

> My husband was there when I got pregnant, at all the doctor's visits, and when Linda arrived. They fell in love with each other at first sight, proving to me that the 'real father' is the person who holds you in the middle of the night and kisses you when you fall over (*DI mother*).

The genetic parent frequently reassures the non-genetic parent in this way. Felicity, for example, who is the mother of a DI child, said, 'I feel that it is the parenting and the relationship that is key, not the genetics'. Nevertheless, the non-genetic parent can feel anxious about being accepted as a 'legitimate' parent. Felicity's husband, according to her,

'is very concerned that he might hear from our daughter one day, "You aren't my dad". He often thinks about a rebellious teenager who rejects him because she came from donor sperm'. Repeatedly, insistence on the primary meaning of the parent-child relationship was made as an argument against the dominant discourse of the necessity for genetic connection.

Because Evelyn's husband had two adopted children from his first marriage, their narrative interpretation of experience was that relationships could compensate for the lack of genetic connection. When Evelyn told her stepson that they were going to use DI, he commented, 'We're family even though we're not genetically family, so I don't have a problem with it'. Evelyn has taken the notion of relationships one step further: she interprets the connection between the (so far unknown) sperm donor and her DI sons as becoming significant only should they develop a personal relationship: 'It's the relationship and the meaning of that, and not that there is a genetic connection. The genetic connection is the reason for the relationship, but how it develops will depend on circumstances'.

Other parents may have reasons in addition to the use of a donor for not only downplaying but rejecting genetic connection. Mary has a son from a brief first marriage and another son from DI in her second marriage. Mary describes her first husband, whom she 'hated', as a sperm donor whose physical similarity to their son initially caused problems in the mother-child relationship. Her second husband, Martin, 'has been his father all along'. Martin himself said of his two sons, 'You'd like to think that you were both the sperm donor and the father, but I would certainly prefer to have the child'.

Two sisters, one of whom donated an egg to the other, also interpret family and parenting in terms of relationships, although they acknowledge the fact of their underlying genetic connection. One task completed by those whom I interviewed in person was to draw a family tree. When these two sisters were interviewed (together, by their choice), each drew separate family trees beginning with their parents; neither included a link between the sister who donated eggs and the children born as a result. When I mentioned it, Virginia (the donor) said that she would draw a connection 'just to show you actually what happened, not how I think of it'. Her sister, Serena, immediately added, 'Well, that is probably the whole interview in a nutshell, isn't it, really? In a way our genetic connection is the same'. The sisters superimposed on their genetic connection through their parents the more significant meaning of relationships in their understanding of family. (Not all sister-to-sister donations, however, were interpreted thus; nor was it always the case that sisters had a narrative interpretation in common.)

The attempt made in this article to comprehend the varied meanings of genes and relationships in the understanding of what makes a family can be succinctly captured by the distinction between 'what happened' and 'how I think of it'.

Balance, Tension, And Change

'My daughter has three parents': Genes and relationships in balance.
Narratives revealed the dynamic tension between genes and relationships depending on context and circumstance. Olivia and Owen, for example, emphasise the value of the parent-child relationship while acknowledging the role of the egg donor in their lives. From time to time others, however unwittingly, draw attention to the primacy of genes inherent in the canonical family narrative. People want to know from whom their daughter inherited her distinctive hair; Olivia reported saying to Annabelle, aged 2 years 8 months, 'Sometimes you look a bit like Daddy because you grew from his sperm. Sometimes you look a bit like the woman who shared her eggs with us because you grew from her egg'. The canonical

narrative may be invoked because the donor's genes are perceived in the child's features and skills (on the premise that family members look alike), or because, as Olivia said, 'having an unknown donor can certainly "catch you out" in unexpected ways':

> A colleague of my husband's has always commented on how alike our daughters are ('They could be sisters') but we never thought anything about it until he told us that she was a GIFT baby conceived at the same clinic that our daughter was. ... We know very little about Annabelle's donor, but fortunately just enough that we were able to discount the possibility of a genetic link between those two little girls; but it certainly was a confronting moment (*egg recipient mother*).

There are constant reminders of genetic connection beyond family relationships. The family narrative must make meaning of all these links. Olivia's interpretation is that 'My daughter has three parents: a biological and social father and a social birth mother with whom she lives, and a biological mother who donated eggs for us'.

The juggling act is evident also in those parents who claim that relationships are paramount but insist on the same donor for all their children. This is explained in various ways. Felicity, for example, felt 'safe' using the same donor for her second child after their first was 'a beautiful, healthy, intelligent daughter who others think looks like my husband'. Using a different donor would also have meant reassessing sperm safety and wondering about 'good genes'. In addition to medical reasons for sharing a donor (such as the potential for sibling bone marrow donations), Felicity wanted them 'to be able to share their thoughts and feelings about their biological sperm donor, and have a common bond in this respect'. The significance to her of the same donor replicates explanations given by others.

Holly took these concerns even further; her husband had a vasectomy after their two DI sons were born to ensure that they did not accidentally conceive a child genetically related to them both. The presence or absence of genetic connection could be interpreted in various ways, they reasoned, with implications for the narrative identity of the children: Would the DI children 'feel second-best with their father. … Would they wonder if we regretted doing DI for them since we could conceive on our own? Would the third child feel badly, being so clearly unplanned?' Holly was aware that these are matters to be considered by any blended family, but 'since we could avoid them, we did'. She also valued the 'family resemblance' between the brothers and the fact that there would be only one person to search for should her sons decide that they wanted to find their donor. Holly added: 'There is something that seems more "normal" about children within a family having the same genetic parents, and after having had to go through such a process to get the kids, any kind of 'normal' is a bonus'. The bonus of being any kind of normal was implied by parents who strive to construct their family narratives with as little deviation as possible from the canonical narrative.

Other parents, while emphasising relationships, chose a donor for specific characteristics that might be genetically transmissible. Naomi and her husband, for example, chose a sperm donor (from information provided over the Internet) to maximise the similarity of their second child to their first (who was conceived with her husband's sperm), and in hopes that s/he would inherit the resilient personality necessary 'to accommodate the uncertainty and the self-questioning that having a donor parent would bring'.

Most parents who had used different donors for their children did so because they had no choice; the usual preference was to have the children genetically related to each other. However, the significance of genes could also be seen in avoiding the same donor in order to diffuse the involvement of a third party in the family, thereby permitting relationships to dominate. This was the case with Tomi, the co-mother of a child conceived with DI, to whom

her partner Tess gave birth. A second child with the same donor would mean that 'the point of connection would be this unknown person'. It would be hard for Tomi and Tess 'not to privilege that in the lives of the children, and then create some expectation around that'.

Felicity spoke of her fear of 'bad' genes. This is a ready explanation, especially when the donor is unknown, should the child's health or behaviour cause concern. In such cases the powerful meaning of genes competes with the best-intentioned relationships. Mary endeavours to understand her son's life without reference to the sperm donor, but can summon no reason other than the donor's genes for her son's aggressive behaviour. (Holly and her sons report blaming the sperm donor for the boys' 'obnoxious' behaviour as a joke: the recipient family's version of 'They didn't get it from my side of the family'.)

Donor-conceived people are reminded of the meaning of genes every time they are asked for a medical history. Even those whose narrative identity derives from relationships with their social parents cannot avoid the significance of their genetic ignorance. Wendy exclaimed, 'Oh god! In the age of genetics to not have half of your history!' The lack of a complete medical history was a recurring theme for parents as well as offspring, and a further indication of how genes at times overwhelm relationships in their influence on the family and the self.

Lucinda provides a useful example of how something that is taken for granted (in this case, genetic connection) can be a powerful narrative absence. At 13, Lucinda was told by her mother that she was conceived through DI. Her father had left the family when Lucinda was a child; he had not maintained his relationship with her and she was untroubled by her donor conception. Lucinda at 21 explained her lack of concern by describing a family as 'all about social connections'. However, when asked to consider it, she concluded that she would be unable to accept donor egg conception with such equanimity: 'If I didn't feel I had the genetic connection with my mum, I'd want a stronger relationship with Dad, as my genetic parent'. Having both a genetic and a social relationship with her mother, Lucinda is untroubled by having neither with her father. Her sense of self and family, on the other hand, would be undermined by severing the genetic connection with her mother, from whom she would then be distanced. She can assert the meaning of relationships in her sense of self and family as long as she can take for granted the genetic connection with her mother (recalling the interpretations of the sisters Virginia and Serena).

Tension between genes and relationships can be created when family members differ on emphasis or meaning. For example, Betty explained her sense of family through relationships. She said of donors: 'I can't understand them wanting to find out or trace their children. Because they're not their children'. According to Betty, her husband emphasises genes and their implication for his masculinity. (His shame at their resort to a donor entails secrecy about it.) However, Betty said that she and Barry agree on the power of genes to create gender, saying that their son plays like a boy and their daughter like a girl: 'And it's just genetic. It's nothing taught to them'. The fluctuating emphasis according to time, place, and topic is apparent.

The way in which this dynamic tension can fluctuate under the influence of social, political, and personal factors is exemplified by Tomi's account. Her personal investment in parenthood leads her to want both to discount and to appropriate the significance of genes:

> I feel like I'm—and I know that I'm not—biologically connected to her. And sometimes we have these funny conversations at dinner times or with friends, where people will be talking about how much Rita is like Tess, and sometimes I'll feel like I actually want to say, 'Can anybody see anything that is like me?'

> Because I don't want to believe that a biological connection is the only connection, and I don't believe that, though I guess that's always the question that flips in people's minds; you know, how much nature, how much nurture? And Tess, more and more now, actually sort of comments on moments when Rita is like me, or she'll do something like me, or she'll have copied something I do. ... Every once in while, Tess will say that thing like, 'Oh, she's really your daughter' to me, a bit like I grew up with, you know: the moment you don't want to identify with what the child's doing, you say it's the other parent's characteristic (*non-biological DI mothe*r).

Tomi feels connection and similarity to Rita because of her relationship as a parent, but must resist having it undermined by her lack of genetic or gestational connection. Her account reveals that the gene has become an easily-conceptualised way of establishing connection and likeness. In the dominant scientific discourse, how can 'accidental' physical or behavioural similarities equate with similarities occasioned by genetic connection? In her juggling with the meanings of genes and relationships, Tomi is attempting not to have relationships knocked out of her hands.

Getting Further From The Time Of Conception: Meanings Change.

Time can bring changes in the relative meaning of genes and relationships and their contribution to a sense of family. Before a baby is conceived by donated gametes or embryos, genes can dominate parents' narratives of the future as fearful barriers to happiness. The development of the parent-child relationship, however, may be accompanied by parents' increasing confidence in the power of relationships to overcome genetic gaps. One DI father, Gary, described this progression:

> For the first couple of years, with the first child, when they really couldn't talk to you, …
>
> particularly when I got angry with them, I felt partially that I didn't love them enough because they weren't actually mine naturally. That feeling has gone now, principally because they say 'Daddy' all the time. You know, 'Thank you, Dad'. When I am picking them up from child-care, they say, 'Oh, my dad is here,' and everyone says, 'Angus, your dad is here,' so I feel like I am their dad now and that doesn't worry me (*DI father*).

Gary's account also reflects the common expectation that parents will instantly 'bond' with their babies and will never wish that they would go away. Following sexual conception, parents may feel that they have failed when they do not experience instant bonding; with donor conception, however, the most accessible interpretation of any feeling of distance from a child or inadequacy as a parent is the lack of genetic connection.

Gary was one of many parents (and donors) who expressed concern about children using their knowledge of donor conception as a hurtful weapon against the non-genetic parent. Fear surrounds the anticipated moment when a child says, as Gary put it, 'I don't love you; you're not my real father anyway'. Gary hopes that he will be strong enough to recognise that rejection as arising from 'the heat of the moment' and that their relationship will accommodate it.

Some participants, like Gary, told of changes in their interpretation as they reflected on experience. Others demonstrated change during the research. Alison had donated eggs to her sister Harriet, and at first expressed concern that her nephew would accuse Harriet of not being his 'real mother'. Alison interpreted her genetic connection in terms of a powerful

'reality' which she would be unable to escape, and hoped that no-one would find out about her donation. During the following year, however, Alison decided that she now wanted everyone to know about it, both because she was proud of the donation and because she believed it would be best for the children to know from the beginning. Her understanding of 'reality' had been transformed by the developing family relationships and her own realisation that she loved her nephew but 'it is a different love to that I have for my babies'.

Change is not necessarily consistent, nor in the direction of valuing relationships over genes. Caroline focused on her pregnancy with her babies (rather than on the donated eggs) when her children were very young. Now that they are adolescents and have started to ask about and understand genetics, Caroline has become concerned that she has no information about their egg donor. The quest for information has come to dominate her life, and genes have assumed unforeseen significance.

Gary's wife, Gillian, also explained how genes have assumed a different meaning for them in parallel with their growing appreciation of relationships. In this family, it reflects both the parents' increasing confidence and the shift from imagining DI to its meaning in daily life, especially for their children: 'the issues have gone from our concerns on how it feels, what it means to us, into: How do we tell them? How do we phrase that? What situation is it appropriate to discuss it in?'

Children's development and family life are important instigators of change. Another is the influence of significant people outside the family. Gary and Gillian initially preferred to know nothing about their sperm donor, as though ignoring him would minimise his significance. When their son was about two years old, however, they joined a support group in which they learnt about offspring agitation for access to donor identities and the formation of donor registers. The support group and the political climate contributed to recognising the significance of donated gametes in the lives of their children.

Beatrice, who had known of her DI conception from early childhood, shifted from acceptance to condemnation of the procedure when she 'met someone (who had no personal involvement with DI) who questioned whether the procedure should even be done'. Beatrice was then in her late teens. She maintained her interpretation of the family as being made by relationships, but had reassessed the fundamental significance of genes: 'I don't think it is justifiable to INTENTIONALLY separate the biological/social-parenting tie'. Doing so, Beatrice now concluded, would be 'deliberately creating someone who will be denied the presence and company of their kin'. For her, kin are those to whom we are genetically connected.

A sperm donor, Edgar, was quoted emphasising his genetic material when he first donated. Years later, he has come to balance this with concern for the offspring and awareness of the significance of experience and relationships: 'their early attachment bonds with their families make them their families' children'. Edgar now wishes he could have registered to enable his offspring to contact him, should they wish it. He thinks that those who know of their conception will have, like him, 'some wonder, almost wistful or romanticised, about what holes we might fill in each others' souls, or what questions we might answer for each other'. The objective scientific entities (genes) that Edgar gave away so long ago have become symbols of potential emotional and spiritual connection. Edgar has thought a great deal about the effects of his donations over the years, and describes being influenced by not having 'any children of my own'. He now pursues various ways of helping offspring of his donations to contact him.

Accounts From The Main Characters In The Story Of Donor-Assisted Conception

The three main characters in the story of donor-assisted conception—donors, parents, and offspring—interpret the meaning of genes and relationships from different perspectives and bring different emphases to their accounts. Donors give away some of their genetic material; participants in this research take interest in its fate but explain families with an emphasis on relationships. Recipient parents are compelled to acknowledge the significance of genes through their need for donors; they, too, stress relationships, although many cannot entirely eradicate the pain of losing genetic connection with their children. The little information we have of donor-conceived people arises solely from those who know of their origin. Those who discover it as adults may find their relationships overwhelmed by their sense of genetic lack and the disruption to their narrative identity. Those who have known from childhood are too few for generalisations to be made. Among donors, parents, and offspring, the contributions of both genes and relationships are acknowledged, although, as this article demonstrates, it varies within and between individuals. This variation should be taken in to account in reading the summaries that follow.

A Link Of A Different Kind: Donors.

Donors of sperm, eggs and embryos who volunteered for this research expressed some degree of responsibility for the products of their donation, from full involvement in their lives to concern that they grow up in a loving family (see Kirkman 2003a). This acknowledgment of moral obligation is reminiscent of the sense of belonging to what Finkler (2001) calls a 'significant same' group of people, who consider themselves related on grounds of shared material, including gametes. To this extent, genes signify connection even in the absence of other forms of relationship. It may be assumed that donors who do not interpret connection thus, perhaps having sold or given away their gametes with youthful carelessness, would not volunteer for research of this sort. It is of interest, nevertheless, to note, among those who donated years ago with no thought of what it might mean to any offspring, that the increasing debate about gene research and publicity given to donor offspring are contributing to a reassessment of the meaning of their donations.

All donors were willing to supply information to offspring should they want it; most were prepared to meet them, although some envisaged, with trepidation, having unwelcome parental demands made of them. Here as in other matters there could be differences within families. For example, Wilma and Wendell donated embryos remaining after they had children from IVF. Wilma hoped that any offspring would eventually contact her; Wendell hoped that their anonymity would never be overcome because he feared demands being made on them in the future.

The case of embryo donation was frequently understood as more akin to adoption than gamete donation, and more often evoked (in participants considering the distinction) a sense of a parent-child bond between donors and offspring, even if only in abstract (Kirkman 2003a). Anonymous egg donors are well represented by Felicity (who is also a DI mother). Although she 'would love to know about' any offspring and is happy to meet them should they wish it, she said, 'I do not consider them my children at all. I believe that the experience of pregnancy, delivery, and parenting makes "your child", not the egg or sperm'. This is consistent with her interpretation of her husband's parenting of their DI daughter. Women who donate eggs to sisters or close friends tend both to cede parenthood to those who rear the child and to take comfort from their continuing relationship with the offspring of their gametes. Donors may also consider their own children as well as donor offspring in interpreting their donations in the most benign way. Alison, who donated eggs to her sister,

said: ‘Let’s hope we all raise happy, healthy, well-adjusted children who will always know how special they are and how desperately they were all wanted’.

Quentin became a sperm donor about 15 years ago after hearing a radio appeal. He wanted others to be able to experience the fulfilment he and his wife found in their children. Quentin thinks there may be eight donor offspring and is willing for them to contact him, but does not think of them as his children; neither does he believe that his now-teenage children define them as half-siblings. Nevertheless, Quentin concedes that ‘there is a link. It’s a different kind because it’s not involving my wife and kids’. This different kind of link represents well the way in which most donors explained their connection to the offspring of their donations.

Wanting A Baby So Badly: Parents.

Parents of donor-conceived children, on the whole, wanted their families to be perceived as ‘normal’ (see Becker 2000). This may be brought about either by accommodating as best they can to the canonical narrative of genetic connection between parents and children or by justifying their alternative version. The narrative identity of the parent, especially the non-genetic parent, must often be reinterpreted to take account of the break in genetic continuity. (Unlike Becker 2000, p. 74, who found that women focus more than men on relationships with the child rather than genetic continuity, I found no clear-cut gender categorisation among these parents.) Pragmatic issues, such as an interest in the medical antecedents of their children, may mean that genes take on a significance that parents would prefer not to confer on them. There are often changes in the meaning of genes and relationships for parents as their children develop.

Parents frequently revealed that their initial thoughts were for themselves and their profound desire for children. Harriet, the recipient of eggs from her sister, Alison, said: ‘The thought that you might never have children causes such unbelievable feelings of loss and physical pain that it surely must be compared to illnesses which severely affect a person’s quality of life’. This sense of loss can be overwhelming. Harriet’s account helps to explain why some (but not all) parents began thinking solely in terms of what donor-assisted conception meant to them—a pragmatic way of achieving the relationships of parenthood—before reinterpreting genetic connection from the perspective of their children. Holly now regrets giving so little thought to using an identifiable donor: ‘We just wanted a baby so badly that we didn’t really think of issues for any of us in the future’.

Stories Of Unknown Ancestors: Offspring.

Some donor-conceived adults did come to understand that their parents had ‘wanted a baby so badly’ that they deprived them of knowledge of their genetic heritage; but this was seen, nevertheless, as a severe deprivation, including ignorance of medical history and a fractured sense of identity. Whether or not they knew of their conception from childhood seems to be an important factor in the meaning of familial relationships: if parents are perceived as lying about their children’s genetic origins, this can undermine trust in parent-child relationships and lead to passionate investment by the offspring in genetic connection (Kirkman 2003b). (There are no offspring participants who had known their donors from childhood, although some parents gave accounts of such relationships.)

Wendy discovered as an adult, after her father’s death, that she was the result of DI. In spite of her profound regret that she does not know the identity of her donor and that she cannot revise her relationship with her father in person, she wanted to convey ‘how much I feel my father’s daughter because of all the things I see in myself that he gave me, through environment though not through genetics’. Wendy has sought her donor and found genetic

half-siblings—genetic information is important to her—but she can understand and forgive her parents' longing and the actions they took to assuage it. She takes some comfort from aligning herself with children conceived by mothers during extra-marital affairs, pointing out that their genetic disjunction and their ignorance are the same. The suggestion of widespread genetic confusion has become the context within which Wendy interprets her own circumstances.

Others are less forgiving. Steve calls himself a 'DI adoptee' and says that he 'felt no genetic resonance with my father', even though 'he was a loving man and I adored him'. He yearns to know stories about his 'unknown ancestors' and wonders 'where I fit in my genealogy: … Who am I?'. Although he believes that nurturing creates our values, Steve thinks that genes play the greater part in personality: 'I would probably have much in common with my donor but our values may differ'. Steve argues that his parents should have 'known the donor personally in order for them to appreciate the genetic blueprint that he gave me'. Although he wishes he had known his donor, Steve does not believe that such a relationship would have undermined his love of his parents or their relationship with him. His genetic bond with his donor does not supplant his parents' nurture but should not be disregarded.

Lucinda, who has known about her DI conception (using an anonymous donor) since she was 13, says that the prospect of 'falling in love or having a sexual relationship with a possible half-brother just freaks me out'. Sexual relationships between unwitting siblings concerned parents and offspring.

With so few donor-conceived people available to inform us, however, it is impossible to generalise any more than that they claim the right to genetic knowledge. Offspring who can envisage becoming donors would do so only if they could develop a relationship with their progeny.

Conclusion

Accounts from donors, parents, and offspring of donor-assisted conception reveal the complex ways in which interpretations of genes and relationships contribute to the meaning of family. Simple categorisation is impossible, either among the various roles (donor, parent, offspring) or among possible narrative explanations of genes and relationships. Most participants narrate a tension between the two, with balance shifting from time to time and according to circumstance. This iterative research has shown changes not only in retrospective interpretation but also during the few years of the research.

An important conclusion to be drawn from this analysis is that there is no defining divergence or conflict among the attitudes of the three central characters. Donors and parents want to minimise harm to donor-conceived people; all three define optimum outcomes as somehow combining the significance of relationships and genes in dynamic balance. Exactly how that may be brought about will vary not only according to their relative meaning within the family, but also according to local political, legislative, and cultural factors that this research has not specifically investigated.

Inevitably, the more disputed of the duo is the gene, because the dislocation of genetic material is what distinguishes donor-assisted conception from sexual conception. We cannot escape genes in reproduction. These accounts reveal genes as a signifier of parenthood, as well as a logical, material connection within the positivist discourse of genetic connection: a kind of reified genealogy. Those participating in donor-assisted conception will always have to negotiate the meaning of genes in establishing family relationships. It might be tempting, especially for parents, to reject what could be described as the patriarchal discourse of

necessary genetic succession (as the modern equivalent of property inheritance). However, denial of the significance of genes conflicts with the claims by donor-conceived people that it is their right to know their genetic inheritance. Accounts from all contributors to this research suggest an interpretation of the family (and the place of the individual within it) that encompasses both relationships and genes.

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