



Donor conceived offspring conceive of the donor: The relevance of age, awareness, and family form

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ARTICLE INFO

Article history:

Available online 14 March 2013

Keywords:

United States

Children

Donor conceived offspring

Sperm donors

Lesbian families

Heterosexual families

Genetics

Biological and social fatherhood

ABSTRACT

Rarely have donor conceived offspring been studied. Recently, it has become more common for parents to disclose the nature of conception to their offspring. This new development raises questions about the donor's place in the offspring's life and identity. Using surveys collected by the Donor Sibling Registry, the largest U.S. web-based registry, during a 15 week period from October 2009 to January 2010, we found that donor offspring view the donor as a whole person, rather than as simple genetic material (he can know you; he has looks; he can teach you about yourself); they also believe that the donor should act on his humanity (he should know about you and not remain an anonymous genetic contributor). Other new issues that emerge from this research include the findings that offspring may want to control the decision about contacting their sperm donor in order to facilitate a bond between themselves and the donor that is separate from their relationship with their parents. They also wish to assure their parents that their natal families are primary and will not be disrupted. We discuss how the age at which offspring learned about their donor conception and their current age each make a difference in their responses to what they want from contact with their donor. Family form (heterosexual two-parent families and lesbian two-parent families) also affects donor terminology. The role of the genetic father is reconsidered in both types of families. Donor conceived offspring raised in heterosexual families discover that their natal father no longer carries biological information and he is relegated to being "only" a social father. Offspring raised by lesbian couples experience a dissipation of the family narrative that they have no father. The donor, an imagined father, offers clues to the offspring's personal identity. The natal family is no longer the sole keeper of identity or ancestry.

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Introduction

Some countries, such as Sweden, Austria, Switzerland, Netherlands, Norway, United Kingdom, New Zealand, Finland and also three territories in Australia, are banning anonymous donor insemination as the rights of the child to their donor's identity have come to the forefront of social policy. The U.S., however, presently has no policies with regard to anonymous donors. Sperm banks, which have become big business worldwide, regulate the donation and selling of gametes deciding the parameters of donor eligibility (Spar, 2006).

Standard practice has been to reduce the donor to a purchased product; the medicalized procedure of insemination diminishes the

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donor's personhood; any discourse of the donor as a parent (a father), and of the possible significance of a relationship between him and his offspring, is left to the sole domain of the (receiving) family (Spar, 2006). Grace and Daniels (2007) argue that as families move toward more openness about donor use parents are faced with the tension between the "irrelevance" and the "relevance" of the donor. Erasure leaves parents, especially mothers Grace, Daniels, and Gillett (2008, p. 311) find, wondering about and even empathetic toward the donor. It is this interest in him that makes him relevant and gives him personhood (Grace & Daniels, 2007; Grace et al., 2008). He pops up in the imagination of family members who are curious about whether the offspring resembles him in looks, traits and character. He lives in the shadows of the family as an "imagined" person (Hertz, 2002, 2009).

As Grace and Daniels (2007) themselves recognize, this issue of "relevance" or "irrelevance" is not so easily thought of as a straightforward distinction between genes and the environment

(nature/nurture). Considerable writing within the biological and social sciences has challenged the notion of a simple dichotomy, rendering it no longer a viable conceptualization. Within the social sciences, Marilyn Strathern (1992) was one of the first scholars to demonstrate that the new reproductive technologies make apparent that personal “identity” could come from genetic substance rather than kinship, providing a new twist that left aside legally sanctioned relations (Schneider, 1968). Considering the contribution of genetic substance does not preclude the family’s contribution to the offspring’s identity (as they raise a child). But that awareness recognizes the donor as someone who contributes something important to the offspring that is external to the natal family.

Although studies have looked at the *parents* engaged in these new forms of reproduction, few studies have explored how donor conceived (DC) offspring wrestle with how to make sense of the contributions of more than one father. Having looked at the parents, Grace et al. (2008, p. 342) pose the question of making sense this way:

is it really possible for the offspring to conceptualise a genetic donor who is considered significant in terms of biological inheritance, and yet is not a ‘social’ ‘father’ in any sense? And equally, can it be said that the ‘social’ father’s role in the offspring’s life is solely psychosocial and not involving any element of biology? If the answer is no to these questions, the conclusion follows that the child has two men in his or her life, each of whom represents facets of the paternal figure.

As we explore this question of what these “two men” represent, with a unique dataset from donor conceived offspring, we suggest that these individuals struggle to make meaning about their conception as well as about the ways in which the donor is related to themselves and their natal families. This research also takes the investigation beyond the assumption that all donor conceived offspring will have the same attitudes to explore how family form (meaning, in particular, the difference between heterosexual two-parent families and lesbian two-parent families) affects the set of issues having to do with the degree to which the donor is identified as a distinct individual (a person rather than a cell) and how that individual is located within one’s natal family and the broader set of connections DC offspring consider kin. Indeed, some of these – the DC offspring in lesbian two-parent families – are ignored by Grace et al. (2008) when they talk about the “two men” in the life of a donor-conceived individual. In this study, none of these offspring were young children, though many were still adolescents and young adults.

Literature review

Issues of donor anonymity and disclosure provide the context in which DC offspring make sense of their origins and, more particularly, make sense of the donor himself. Whether or not the usual practice in the U.S. of donor anonymity should prevail is now a subject of widespread debate (Daniels, Lalos, Gottlieb, & Lalos, 2005; Garcia-Velasco & Garrido, 2005; Jadv, Freeman, Kramer, & Golombok, 2010). Not surprisingly, different stake holders have different views about this issue ranging from those concerned about supply (Garcia-Velasco & Garrido, 2005) through donors themselves (Rodino, Burton, & Sanders, 2011) and receiving parents (Scheib, Riordan, & Rubin, 2003) to donor conceived offspring (Rodino et al., 2011). Regardless of the attitudes and interests of the various parties, to date however, especially in the U.S. from which the bulk of data for our study is drawn (see below, Table 1.5), the vast majority of donors remain anonymous. Whether or not the donor is anonymous, individuals relying on donor insemination

Table 1
Comparison of entire sample and two-parent family sample.

	Entire sample		Sample without two-parent households		Two-parent households	
	N	%	N	%	N	%
1.1 Current age						
13–15	103	20	44	22	59	19
16–18	92	18	42	21	50	16
19–21	65	13	26	13	39	12
22–25	83	16	32	16	51	16
26–30	67	13	25	12	42	13
31–40	60	12	17	8	43	14
41 or older	48	9	18	9	30	10
Total	518	100	204	100	314	100
1.2 Age at which told of DC						
Always knew	189	47	103	61	86	37
Before 5	42	11	18	11	24	10
5–7	29	7	12	7	17	7
8–10	34	9	15	9	19	8
11–14	39	10	10	6	29	13
15–18	29	7	8	5	21	9
19–25	2	1	0	0	2	1
26–35	26	7	3	2	23	10
36 or older	9	2	0	0	9	4
N	399	100	169	100	230	100
1.3 Sex						
Female	384	75	151	75	233	75
Male	129	25	50	25	79	25
Total	513	100	201	99	312	100
1.4 Donor type						
Anonymous	421	89	166	89	255	89
Known	8	2	3	2	5	2
Identity release	33	7	15	8	18	6
Other	10	2	2	1	8	3
Total	472	100	186	100	286	100
1.5 Country of origin						
U.S.	456	93	164	92	292	93
Other	36	7	14	8	22	7
Total	492	100	178	100	314	100

confront the issue of whether or not to disclose DC origins to their children and, if so, the best timing for that disclosure (Daniels & Meadows, 2006; Freeman & Golombok, 2012; Shehab et al., 2008). Informing offspring of the nature of their conception, through donated sperm, is now viewed as desirable by professionals and policy makers (Grace & Daniels, 2007; Grace et al., 2008). However in practice, disclosure is a complex issue (Brewaeys, Golombok, Naaktgeboren, de Bruyn, & van Hall, 1997; Brewaeys, Ponjaert, Van Hall, & Golombok, 1997; Daniels, Lewis, & Gillett, 1995; Landau & Weissenberg, 2010; Lycett, Curson, & Golombok, 2005; Readings, Blake, Casey, Jadv, & Golombok, 2011). Within lesbian couples disclosure is often considerably earlier than it is within other types of families (Beeson, Jennings, & Kramer, 2011; Jadv, Freeman, Kramer, & Golombok, 2009) and in general, single mothers and lesbian couples are more likely to

disclose than are heterosexual couples (Agigian, 2004; Scheib et al., 2003). These differences can be attributed, at least in part, to the fact that DC poses special issues in heterosexual two-parent families when compared to lesbian two-parent families; these special issues have to do with protecting a social father from the stigma of male infertility (Greil, Slason-Blevins, & McQuillan, 2010; Miall, 1994, 1986).

DC offspring have been studied for issues of psychological adjustment, especially among young children (Brewaey, Golombok, et al., 1997; Brewaey, Ponjaert, et al., 1997); these studies have found no serious problems resulting from DC origins (Golombok, MacCallum, Goodman, & Rutter, 2002; Golombok & Murray, 1999). Studies have also looked at adolescents (Freeman & Golombok, 2012) and found that taken as a whole, openness about DC does not create significant difficulties for either family functioning or child adjustment.

However, the issue of openness is not the only one that affects attitudes. Freeman and Golombok (2012) suggest *age* at disclosure is an important factor that contributes to the impact of disclosure (Jadva et al., 2009). Blyth (2012), for example, reports on eight individuals who learned of their DC status as adults. Their donor conception was a “shock” which disrupted their sense of identity and their sense of who constituted members of their family.

Family attitudes and family form can affect how comfortable DC offspring feel about expressing interest in the donor. Vanfraussen, Ponjaert-Kristoffersen, and Brewaey (2001) interviewed 41 children and adolescents in Belgium between the ages of 7 and 17 years born to lesbian two-parent families. Fifty-four percent preferred no contact or additional information about the donor. The rest of the offspring wanted to know more about the sperm donor: some wanted to know his identity but mostly they wanted to know about his physical appearance. Vanfraussen et al. argue that the family unit develops a collective opinion, which accounts for the differences between the two groups. Scheib, Riordan, and Rubin (2005) draw on a mail-back questionnaire with youth in 29 households (41.4% headed by lesbian couples, 37.9% by single women, 20.7% by heterosexual couples) who had open-identity sperm donors to identify attitudes toward donors and donor conception. Most of these youth reported that they always knew that they were donor conceived and that they were “somewhat to very comfortable” with their origins. In families headed by couples the youths’ “expressed interest” in their donors was dampened. Offspring raised by single mothers were the most interested. However, with one exception, these youths were planning to make contact with their donors because they wanted to know as much as they could about him. (See also Beeson et al., 2011.)

Drawing on 165 questionnaires completed by donor offspring who were members of the Donor Sibling Registry (DSR, discussed below), Jadva et al. (2010) reported that fewer offspring from heterosexual-couple families had told their fathers about their search for the donor when compared with offspring from lesbian-couple families who had told their co-parent. Beeson et al. (2011), relying on online questionnaires completed by 741 DC offspring recruited via the DSR, also found that offspring raised in heterosexual two-parent families are least comfortable about expressing interest in the donor and a quarter of those respondents feel unable to discuss their origins with their “social father.” Both studies suggest a special concern about protecting the father in a heterosexual two-parent household.

These studies (conducted by the DSR and elsewhere) leave unclear just how offspring make sense of the donor (is he a person, a relational object, a father, a vial of sperm) and why they think that they might or might not want to have contact with him. These studies also leave unclear how family form (whether one has two lesbian parents or two heterosexual parents) affects the ways in

which DC offspring make sense of the donor and whether any differences in attitudes result from one’s current age or the time at which one learned of one’s origins. We turn to these issues in our findings.

Methods

Data source

As part of a drive to improve the availability of information following donor conception, both in the U.S. and globally, the third author co-founded the Donor Sibling Registry (DSR) in 2000. The intent of the DSR is to facilitate the ability of donor conceived offspring to match with their genetic relatives, a service which few U.S. sperm banks offer at this time. The DSR exists online and people who purchased gametes from banks worldwide register for membership. The DSR is unique in that families with donor conceived offspring can register at any age to connect with others who share genetic family; some sperm bank do allow connection to willing donors once a child turns 18 but U.S. donors remain disproportionately anonymous. The DSR offers the ability to make connections among individuals at younger ages and even before birth.

The third author has conducted a series of surveys among families created using donor gametes (Beeson et al., 2011; Freeman, Jadva, Kramer, & Golombok, 2009; Jadva et al., 2009, 2010). The present paper draws upon two of the most recent surveys designed and supervised by the third author; these data are used also by Beeson et al. (2011). The present authors reanalyzed all the data and present material not covered in the Beeson et al. (2011) article.

The data were collected in two simultaneous (online) surveys of oocyte and sperm donor offspring conducted during a 15 week period (October 2009–January 2010). Data collection was administered by Survey Monkey, a web-based online software site. The two surveys, with parallel questions (and often identical wording), were made available to two different kinds of families: donor offspring raised by heterosexual parents and donor offspring raised by lesbian parents. The surveys consisted of both multiple choice and open-ended questions. Both surveys included questions about the donor offspring’s family structure, knowledge of and feelings about being donor conceived, how parents discussed the donor, and advice offspring would give parents and donors about both donor conception and searching for donors and donor siblings. We do not analyze the issue of donor siblings at all here because we wanted to keep the focus on the donor himself; for a preliminary analysis of issues related to donor siblings see Nelson, Hertz, and Kramer (in press).

Links to the surveys were posted on the DSR website inviting donor conceived members (all of whom are over age 18) to complete the surveys on-line. In addition, DSR registered parents were sent an e-mail inviting them to encourage their donor offspring to participate in this study (and to give parental approval for their minor children). An invitation was also posted on the DSR’s open access sites (blog, Yahoo Group and Facebook page) in order to extend participation to non-DSR members. Two-fifths (43%) of the respondents to the survey designed for DC offspring with lesbian parent(s) were DSR members as were half (53%) of the respondents to the survey designed for DC offspring with heterosexual parent(s). It is possible that individuals register with the DSR because they are especially interested in a connection to biological donors or donor siblings. However, this is not the case for the entire sample, almost half of whom (among both lesbian and heterosexual families) came from outside the DSR membership; these individuals are not necessarily searching for donor relatives.

At the time the data were collected for this study, the DSR had 26,000 online registrants, approximately 15,000 of whom identified

themselves as parents of donor-conceived offspring, leaving 1100 donor offspring, of which 1000 were over the age of 18. It is not known what proportion of the U.S. or world's donor conceived offspring and their parents are registered with the DSR, but no similar registries of comparable size exist in the world. Because not all donor conceived offspring have parents who register on any website (or even tell their offspring of their donor conception) (Beeson et al., 2011), it is impossible to calculate a response rate for these surveys. We do not assume these respondents are representative of the total population of donor conceived offspring. Even so, the two sets of survey findings together offer insight into the perspectives of the largest reported group of donor offspring who constitute a vastly understudied population.

Study sample

We combine the two surveys and treat the resulting population ($N = 759$) as one group. We exclude from our analysis the offspring conceived via oocyte donation because they were too few and all children under the age of thirteen because they were considered too young to have answered on their own. This left a sample of 513 respondents. In addition, unlike Beeson et al. (2011) this analysis examines only two-parent families – lesbian and heterosexual – in order to better understand the meaning of donors as “fathers” or as other important figures in the lives of offspring who already have two parents. In both the lesbian two-parent families and the heterosexual two-parent families a second parent has no biological relationship to the offspring; this fact makes for an appropriate comparison between the two types of families. Single parent families would confound this particular analysis (Hertz, 2002).

The resulting sample of donor offspring over age 13 from two-parent lesbian and two-parent heterosexual families consists of 314 cases. Among these 75% ($N = 233$) identified as female and 25% ($N = 79$) identified as male. These proportions are precisely the same as they are in the fuller sample of 513 respondents and in the sample of 204 respondents with some other family structure than two parents (Table 1.3). The question about respondent age offered forced choice categories: the respondents ranged from 13 to over 40; the study sample differs little from the broader sample (or the subset of respondents with some other family structure than two parents) on this variable (Table 1.1). In other ways as well the study sample resembled the broader sample from which it was drawn. The same proportion of each group (the full sample, the non-two-parent sample, and the two-parent sample) had anonymous, known, and identity-release donors (Table 1.4). And, finally, the same proportion of each group came from some country other than the U.S. (Table 1.5). The major difference among the samples is the time at which respondents had learned of their DC. Not surprisingly, given the research discussed above, the respondents from two-parent households learned of their DC at slightly older ages and a much smaller proportion of them had always known about their DC than was the case for the other respondents (Table 1.2). In our discussion and interpretation of our findings, we remain attentive to this issue of the time of learning of DC.

Much of the survey consisted of closed-answer responses. Respondents were given the opportunity to answer some questions entirely freely and some questions left room for respondents to add information. With the help of a research assistant, the first two authors developed codes for such responses. Each item was coded by two people; when there were disagreements we coded these responses as “other.” We explain our codes as they become relevant. In quoting from respondents we have corrected spelling and grammar when it is clearly typos or respondents using text-short hand (e.g., u equals you). Otherwise, the responses are as written on the surveys.

In discussing our findings, we refer to the individual who provided sperm as a *donor*. Sometimes we discuss what language respondents use (e.g., “donor,” “biological father”). When we speak of the donor as having attributes of fatherhood, we make it clear that this is an “imagined” father rather than the flesh and blood father of the natal home.

Data analysis

In the analysis we first look at the responses of the 314 DC offspring as a group and then separately by two groups of current age (“13–21”; “Over 21”) and four groups as distinguished by the time of learning about their DC (“Always Knew,” “before 11,” “11–18,” and “Over 18”). We then compare the responses of those from lesbian two-parent families (L2P; $N = 97$) with those from heterosexual two-parent families (H2P; $N = 217$). We use a Pearson Chi-Square test of significance and report all results, indicating those cases where the results have a Chi-Square probability of 0.05 or less. When we find a difference between the lesbian-parent and heterosexual-parent households (at the 0.05 level) we further examine the results within the variables of Current Age and Time of Learning of one's DC (when there are a sufficient number of cases) because in general the two different family forms (heterosexual two-parent and lesbian two-parent) differ dramatically with respect to these two variables.

As we show in Table 2, the DC offspring from lesbian two-parent families are considerably younger than the population of DC offspring from heterosexual two-parent families (Table 2.1). In addition, the DC offspring raised in lesbian two-parent families learn about their DC status at a much younger age than do those who are raised in heterosexual two-parent households: almost three quarters of the DC offspring from lesbian two-parent families have always known about their DC; almost half of those raised in heterosexual two-parent families learned of their DC status as adults (after age 21) (Table 2.2). The categories of current age

Table 2

Differences between lesbian-parent and heterosexual-parent households in current age and age of timing of learning of donor conception.

	All		Lesbian parents		Heterosexual parents	
	N	%	N	%	N	%
2.1 Current age^a						
13–15	59	19	38	39	21	10
16–18	50	16	24	25	26	12
19–21	39	13	9	9	30	14
22–25	51	17	10	10	41	19
26–30	42	14	8	8	34	16
31–40	43	14	1	1	42	19
41 or older	23	7	7	7	23	11
Total	307	100	97	100	217	100
2.2 Age at which told of donor conception^a						
Always knew	86	31	52	73	34	16
Before 5	24	9	9	13	15	7
5–7	17	6	5	7	12	6
8–10	19	7	0	0	19	9
11–14	29	10	4	6	25	12
15–18	21	8	1	1	20	10
19–25	52	19	0	0	52	25
26–35	23	8	0	0	23	11
36 or older	9	3	0	0	9	4
N	280	100	71	100	209	100

^a Probability of Chi-square test of difference between lesbian-parent and heterosexual-parent households is significant at the 0.00 level.

groups and the categories of time of learning of DC represent our best effort to have both meaningful internal divisions (we did not want to mix adolescents and young adults with those considerably older) and meaningful divisions as revealed by an examination of our data. (Although current age operated in a straightforward linear way, the time of learning of one's DC origins did not operate in that way and we did not want to combine disparate groups.) We also tried to leave a sufficient number of cases in each cell (when we compare lesbian-parent and heterosexual-parent families) to draw significant conclusions; because the data are so very lopsided, we were not always successful in this quest. (We cannot explore differences between the two sets of families within the older age groups when we introduce the variable of the time they learned of their DC.)

Findings

Donor talk

Respondents were given a choice of answers to the question, "If conceived via sperm donation, how do you refer to (or describe) the donor?" and asked to check the answers that they felt applied to them. Not all DC offspring refer to the donor in the same way (Table 3.1): among the variety of different terms, some give social/relational status (as well as personhood) to the donor – "biological father" (35%), "donor dad," (10%) and "dad" (5%) – whereas other terms – "sperm donor" (37%) and "donor" (35%) – ignore any social/relational status but do confer personhood. In addition, some respondents added terms that were not offered in the survey: some added relational terms such as "donor father"; others added personal terms such as the donor's name (because they know who he is or have met him); some made a joking reference to the donor in an impersonal way (e.g., frozen pop); and some used a term that was entirely impersonal such as a vial number. The frequency of use of one of the relational terms – that of "biological father" – shifts with age and becomes more prominent among those who are older; this term also becomes more frequent with respondents for whom the time of learning about their DC occurs at an older age. Whether one has heterosexual or lesbian parents appears to make a difference in the proportion of respondents who refer to the donor as a "donor." More respondents from lesbian families use this nomenclature than do respondents from heterosexual families (44% versus 31%). This difference is not sustained when the variables of current age and time at which one first learned of one's DC are each introduced separately. However family form also appears to make a difference with respect to the use of paternal language: the term "bio father" is less common within lesbian families than within heterosexual families (12% versus 45%); the term "genetic father" is also less common with the lesbian two-parent families (2% versus 10%). The difference in the use of the relational term "bio father" (between lesbian and heterosexual families) remains within both age groups and within the first two groups as distinguished by the time at which they learned of their DC ("always knew" and "before 11"). The difference in the use of the relational term "genetic father" remains only for the youngest respondents.

The possibility of contacting the donor

Most DC offspring (83%) want to contact the donor (Table 3.2). The interest in contacting the donor increases with current age and the time at which one learned of one's DC. An initial difference between the DC offspring from lesbian two-parent and heterosexual two-parent households in their interest in contacting the donor (71% versus 86%) disappears within the two current age categories and the first two categories of time of learning of DC.

Reasons for wanting to contact the donor

Respondents were given a choice of answers to the question of how and why they might want to have contact with the donor; respondents could give more than one answer. Among those who do want to contact the donor, the most frequently given reasons are to see what the donor looks like (93%), to learn about the self (85%), to learn about one's ancestry (81%), and to learn information relevant to one's health (78%) (Table 3.3). Half the respondents (52%) say that they want to be known by the donor. Only two fifths (38%) of all respondents who want to contact the donor actually want to have a relationship with him.

Four reasons for wanting to contact the donor change with both current age and time of learning about DC. As respondents mature and as respondents have learned about their DC at an older age, they are more likely to believe that the donor can teach them about themselves and they become more interested in wanting to locate the self within a timeline of kinship (ancestry) and within a pattern of DNA (health); they also become more curious, simply, about what the donor looks like. Those who are older are also more likely to include an "other" reason beyond those offered in the survey for why they want to contact the donor.

There are two differences between the DC offspring from heterosexual two-parent families and the DC offspring from lesbian two-parent families in why they want to contact the donor: those from lesbian two-parent families are less interested in contacting the donor in order to learn about health (60% versus 83%) and ancestry (68% versus 85%). Both of these differences are sustained within the two age groups; the second of these is sustained among those who have always known of their DC.

Advising parents about contact with the donor

An open-ended question, that asked respondents how they would advise parents if their DC offspring wanted to contact the donor, offers insight into the broad issue of contact (Table 3.4). Slightly more than half (51%) of the respondents answered this question; a smaller proportion of DC offspring from lesbian parent families (43%; $N = 42$) responded than did offspring from heterosexual parent families (56%; $N = 121$). Several new issues (beyond those discussed with reference to reasons for wanting to contact the donor) emerge within these responses.

First, there are issues of control over disclosure and parental honesty about DC. Twenty-eight percent of the respondents insist on claiming this decision. As one respondent said, "It's not about you [the parents], it's about them [the DC offspring]." Another added, "That it is the decision of the child whether they want to make contact." And still another said, "Ultimately, it should be your child's decision at the appropriate time; that shouldn't be something you should be able to decide for them." In addition, 19% of respondents urge parents to be honest about donors and DC.

Another new issue emerges as well. Even as respondents like those just quoted say that they want to control the process of contact and want transparency from their parents, they indicate that they do not want the natal family disrupted. Thirty-three percent of the respondents spontaneously reassured their parents that contact would not threaten the love or the relationship that existed between a donor-conceived person and her/his parents.

I think it's just another puzzle piece of my world. It wouldn't replace anything about my [pa]rents or those relationships, but could maybe fill a hole somewhere else. Personally, I don't think of him as my father – a father is someone who invests in my life and raises me. He's just a part of my heritage and DNA and it might be interesting to learn about him.

Table 3
Donor issues by age, timing of learning of donor conception, and family form.

3.1. How respondents refer to the donor (percent giving each answer; multiple responses allowed)																										
	All	Current age				Time of learning of DC				Family form			Current age						Time of learning of DC ^a							
		13–21		Over 21		Sig.	Always knew	Before 11	11–18	Over 18	Sig.	L2P	H2P	Sig.	13–21			Over 21			Always knew			Before 11		
		L2P	H2P	L2P	H2P										Sig.	L2P	H2P	Sig.	L2P	H2P	Sig.	L2P	H2P	Sig.	L2P	H2P
N	314	148	166		81	58	49	84		97	217		71	77		26	140		51	30		14	44			
Donor	35%	41%	31%		40%	29%	43%	31%		44%	31%	0.03	44%	38%		54%	72%		45%	30%		29%	30%			
Sperm donor	37%	35%	39%		43%	35%	45%	41%		31%	40%		16%	36%	0.00	4%	49%	0.00	18%	43%	0.01	7%	46%	0.01		
Bio father	35%	26%	42%	0.00	27%	36%	41%	51%	0.02	12%	45%	0.00	6%	5%												
Dad	5%	6%	5%		7%	5%	6%	4%		6%	5%															
Donor dad	10%	12%	8%		12%	12%	10%	10%		9%	11%															
Genetic father	7%	7%	7%		6%	2%	10%	13%		2%	10%	0.02	3%	12%	0.04	0%	9%		4%	10%		0%	2%			
Other	10%	9%	10%		14%	10%	10%	7%		12%	8%															

3.2. Do you want to contact the donor (percent saying yes)																										
	All	Current age				Time of learning of DC				Family form			Current age						Time of learning of DC ^a							
		13–21		Over 21		Sig.	Always knew	Before 11	11–18	Over 18	Sig.	L2P	H2P	Sig.	13–21			Over 21			Always knew			Before 11		
		L2P	H2P	L2P	H2P										Sig.	L2P	H2P	Sig.	L2P	H2P	Sig.	L2P	H2P	Sig.	L2P	H2P
N	224	100	124		62	49	39	74		56	168		44	56		12	112		38	24		13	36			
Percent saying yes	83%	72%	91%	0.00	76%	69%	85%	96%	0.00	71%	86%	0.01	66%	77%		92%	91%		71%	83%		69%	69%			

3.3. Why do you want to contact the donor (percent giving each response among those who want to contact donor; multiple responses allowed)																										
	All	Current age				Time of learning of DC				Family form			Current age						Time of learning of DC ^a							
		13–21		Over 21		Sig.	Always knew	Before 11	11–18	Over 18	Sig.	L2P	H2P	Sig.	13–21			Over 21			Always knew			Before 11		
		L2P	H2P	L2P	H2P										Sig.	L2P	H2P	Sig.	L2P	H2P	Sig.	L2P	H2P	Sig.		
N	185	114	128		71	39	34	71		40	145		71	43		26	102		51	20		14	25			
Learn about self	85%	57%	76%	0.00	62%	80%	77%	86%	0.01	88%	84%															
Learn about health	78%	39%	82%	0.00	42%	59%	85%	94%	0.00	60%	83%	0.00	27%	58%	0.00	35%	94%	0.00	35%	60%		43%	68%			
Learn about ancestry	81%	50%	77%	0.00	51%	74%	88%	86%	0.00	68%	85%	0.01	31%	81%	0.00	42%	86%	0.00	41%	75%	0.01	57%	84%			
To see what he looks like	93%	64%	82%	0.00	69%	80%	91%	94%	0.00	93%	93%															
To establish a relationship	38%	26%	33%		30%	33%	38%	35%		45%	36%															
So that he knows me	52%	38%	42%		37%	51%	47%	51%		60%	50%															
To trade photos	7%	5%	5%		7%	3%	6%	5%		5%	7%															
To email	4%	4%	3%		4%	0%	6%	4%		4%	3%															
Other	14%	6%	16%	0.02	11%	5%	15%	17%		8%	16%															

3.4. How offspring would advise parents about contact with donor (percent giving each response; multiple responses allowed)									
	All	Current age ^b		Time of learning of DC ^b				Family form ^b	
		13–21	Over 21	Always knew	Before 11	11–18	Over 18	L2P	H2P
N	163	81	88	44	27	26	46	42	121
To learn about identity	26%	25%	39%	25%	41%	15%	24%	33%	23%
To learn about medical issues	23%	16%	24%	11%	30%	15%	28%	19%	25%
Offer reassurance that contact with donor will not disrupt relationship with parents	33%	21%	34%	18%	33%	19%	35%	41%	31%
Suggest that contact with donor might be harmful	10%	9%	8%	9%	4%	12%	7%	14%	8%
Advise parent to be honest about donors and DC	19%	11%	17%	11%	19%	8%	24%	17%	20%
Advise parents to allow children to decide whether or not to have contact with donor	28%	32%	24%	34%	26%	31%	22%	21%	31%
Suggests that meeting donor will offer an opportunity to grow	9%	9%	9%	7%	4%	8%	7%	5%	10%
Respondent suggests a specific time when it is appropriate to inform children about DC	8%	7%	8%	9%	4%	4%	13%	2%	10%

(continued on next page)

Confused	8%	6%	10%		4%	7%	12%	14%		3%	10%	0.03	3%	9%		4%	11%	*	*	*	*		
No difference	33%	45%	22%	0.00	52%	43%	37%	20%	0.00	39%	30%												
Other	21%	14%	28%	0.00	19%	14%	29%	36%	0.01	7%	28%	0.00	7%	18%	0.04	8%	37%	0.00	12%	30%	0.04	*	*

	All	Current age			Time of learning of DC						Family form					
		13–21		Over 21	Sig.	Always knew		Before 11	11–18	Over 18	Sig.	L2P		H2P	Sig.	
N		93	21	71		16	11	15	50		8	84				
Betrayed		17%	19%	17%	*	25%	27%	7%	16%	*	**	18%	*			
Relieved		1%	5%	0%	*	6%	0%	0%	0%	*	**	1%	*			
Sad		28%	19%	31%	*	13%	27%	40%	30%	*	**	29%	*			
Other		53%	57%	52%	*	56%	45%	53%	54%	*	**	53%	*			
Total		99%	100%	100%		100%	99%	100%	100%			101%				

3.7: Hardest thing about talking about donor conception	All	Current age			Time of learning of DC ^c				Family form			Current age		Time of learning of DC										
		13–21		Over 21	Sig.	Always knew		<11	11–18	Over 18	Sig.	L2P	H2P	Sig.	21 And over		Always knew		Before 11		Sig.	L2P	H2P	Sig.
N		228	107	121		67	39	38	67		62	166		49	58	13	108		43	24	14	33		
Concern that others judging them		14%	16%	12%		21%	17%	10%	7%		26%	9%	0.00	25%	9%	0.03	*	*	28%	8%	*	*		
Frustration with having to explain process (others ignorant)		21%	37%	7%	0.00	37%	19%	21%	7%	0.00	47%	11%	0.00	53%	24%	0.00	*	*	54%	8%	0.00	*	*	
Concern about bigotry of LGBTQ families		1%	1%	2%		3%	2%	0%	0%		3%	1%												
Other people don't understand their feelings		21%	8%	33%	0.00	8%	17%	31%	30%	0.00	8%	26%	0.00	*	*		*	*	*	*		*	*	
Felt that made a spectacle of/put on the spot		8%	10%	5%		12%	4%	7%	6%		8%	7%												
Difficult not to know who their biological fathers were		10%	8%	12%		5%	11%	10%	14%		3%	12%	0.05	*	*		*	*	*	*		*	*	
Complicated relationships in the family		12%	5%	18%		3%	9%	7%	25%	0.00	0%	16%	0.00	0%	9%	0.04	*	*	*	*		*	*	
Nothing difficult/all easy		19%	17%	22%		16%	21%	17%	22%		13%	21%												
Felt special and loved		2%	1%	3%		0%	6%	0%	3%		5%	1%												
Didn't talk about the issue		10%	13%	7%		8%	17%	10%	8%		5%	12%												
Difficult in general		8%	8%	9%		8%	11%	5%	10%		8%	8%												

*There are too few cases to make statistics meaningful.

**Fewer than 10 cases.

^a There are too few cases to control for the other categories of time of learning of DC.

^b No differences are significant at the 0.05 level.

^c There are too few cases to control for any categories of time of learning of DC.

Don't be worried. Your child will still love you and you are still their parent. Just because you are not biologically related doesn't mean you can't be a parent. Your child needs support and help.

None of these expressed concerns changes with either current age or time of learning about DC. Nor do these expressed concerns change with family form. The central issues of who should be able to control the decision about contact, honesty, and reassurance remain important in both kinds of families. However, even though the central issues are important in both kinds of families the two sets of respondents stress different aspects of those issues. While couching their responses in reassurance to the existing natal family, offspring in heterosexual families say that they need to know the donor to feel complete:

Do it [i.e., allow them contact], if your child needs it to feel whole.

Donors are not going to steal your children away from you. They often hold important information to a child's sense of self and biological heritage. Knowledge is a powerful tool and can do wonders for any child's self-esteem.

A desire to know one's roots does not take away from the bonds a child has with his parents.

Among lesbian parent families, the issues are also couching in reassurance but they focus on biology and DNA rather than on heritage or the self:

I would advise it would be a good thing to meet the donors, because it's family in the sense of DNA.

I think if your kid has voiced curiosity of visiting with their biological parents, you shouldn't be worried about being replaced, nurture has much more impact on children than nature.

Taking the point of view of the donor

Another interesting perspective on attitudes toward the donor emerges from an open-ended question that asked donor offspring what advice they would give someone who was thinking about donating sperm (Table 3.5). Almost three-fifths (58%) of the respondents answered this question and the proportions were almost precisely the same in the two family forms (54%, $N = 50$ in lesbian parent families; 59%, $N = 121$ in heterosexual parent families). Here we look at all respondents and then separately at those with anonymous donors (89% of those who answered the question, $N = 140$).

A substantial minority of respondents reject the donor's attempt to separate his personhood (and potential relational status) from his biology: 44% of respondents (46% of those with an anonymous donor) say someone should not donate unless he is willing to be known:

Be a known donor, or willing to be known. It is a special kind of torture to withhold this information from offspring who want to know their genetic origins, and more about their donors.

There is no other single response that is equally common among the respondents. DC offspring cloak what the donor has done in the language of kindness (15% among all; 16% among those with anonymous donors) less often than they assert that donors should take responsibility for what they have done (23% of all; 24% of those with anonymous donors). The respondents are reminding donors that they are not simply ejaculating into a cup, but they are offering up tissue that will produce a child who might want to know him (18% of all; 19% of those with anonymous donors).

Be aware that you are creating a life, and that person might want to know you.

It's a bigger deal than you probably realize. And if you do realize that it is a big deal, good. Don't forget.

With one exception, none of these issues is affected by the respondent's current age or the age of learning about DC. The one exception is that the younger respondents are less likely to insist that the donor is simply engaging in an impersonal act of giving sperm.

Three differences are found between the DC offspring as differentiated by family form in the type of advice they would have for the donor about whether or not to donate among *all* respondents. Respondents from lesbian parent families are more likely to say that donating is a kindness (24% versus 12%) but less likely to say that the donor should make himself known (24% versus 53%) and that he should take responsibility for his actions (12% versus 28%). The first two of these are also found among those with anonymous donors. Within the categories of current age these differences remain (with the exception of the belief that donating is a "kindness" among the older respondents).

Initial and current feelings about donor conception

Initial feelings

When respondents were asked how they *initially* felt about learning that they were donor conceived offspring, 14% say they do not remember, 15% say they felt special, 17% say they felt different, 23% say that they felt confused, and 17% say that it made no difference (Table 3.6.A.1).

Age shapes some of these feelings. Not surprisingly, the younger respondents are more likely to say that they do not recall how they first felt learning of their DC or that it made no difference to them. The older respondents are more likely to say that their initial feeling was one of confusion; older respondents are also more likely to add an additional comment about how they felt initially. Time of learning about DC is clearly relevant here as well. Those who learned earlier are more likely to say that they cannot recall how they felt initially and that it made no difference to them. Those who learned later are more likely to say that they felt "different" once they had learned of their DC and that they experienced initial confusion. They are also more likely to add a comment about their initial feelings.

The respondents from lesbian parent and heterosexual parent families differ in four ways with respect to their initial concerns. First, those from lesbian families are more likely to say they do not recall those feelings. The difference in the inability to recall one's initial feelings is not sustained within either age group (and is actually reversed among the respondents who have always known about their DC).

Second, the respondents from lesbian families are more likely to say that learning about DC made no difference. The initial feeling that DC made no difference to them remains stronger only among respondents from lesbian families who have always known of their DC.

Third, respondents from lesbian families are less likely to say that they initially felt confused and this difference persists among both the younger and the older respondents. Finally, respondents from lesbian families were far less likely to add an additional comment and this difference holds true within the two age categories.

Current feelings

When respondents were asked how they *now* felt about their donor conception, 21% said they felt special, 21% said they felt

different, 8% said they felt confused, and 33% said that it made no difference to them (Table 3.6.B.1).

Again age is relevant: younger respondents are less likely to feel special, more likely to feel that DC makes no difference in their lives, and less likely to add an additional comment. Time of learning of DC is also relevant: those who learned at an earlier time are more likely to say it makes no difference in their lives and they are less likely to add an additional comment.

Finally, family form is also relevant: those from lesbian families are less likely to say that being DC offspring makes them feel special in some way and this difference persists among the older respondents. Respondents from lesbian families are also less likely to say that they continue to feel confused, although this difference is not sustained within the two age groups. Finally, as was the case for initial feelings, those from lesbian families (at both age groups and among those who have always known of their DC) are less likely to add a comment about their current feelings.

Other responses

As the respondents (the vast majority of whom are from heterosexual families) introduced their own notions into an “other” category about their current and initial feelings, the differences by age and time of learning of DC are amplified. With respect to initial feelings, older respondents who learned later in life about their DC (and these are predominantly from heterosexual families) are more likely to say that they felt betrayed (Table 3.6.A.2). (The same pattern is not sustained in responses to current feelings where the responses are more variable altogether [Table 3.6.B.2].) As respondents talk about betrayal, they indicate that their worlds were shaken by learning of their DC status.

Pissed off

[I felt] betrayed, hurt, sad, etc.

Angry that my parents lied to me my entire life about who I am.

Alone, isolated. There is no one to talk to in a constructive way.

And this sense of a world being unmoored – and the anger they express toward that unmooring – also carries with it a sense that they now believe that the donor carries a key to their identity: “[I felt] awful, empty, like a puzzle with missing pieces.”

These responses from DC offspring (especially among those who are older and learned about DC at a later point in life, the vast majority of whom are from heterosexual two-parent families) suggest that many offspring thought they were one thing – the “product” of a social *and* a biological father – but they have since found out that they are something else. This new knowledge arouses sustained sadness that they will never know the unknown donor. And in this sadness, they claim the donor not just as biology but as someone who carries ethnicity, heritage, and kinship. The donor is *a* father, a “real” dad, a family member:

I feel upset that everyone else gets to know who their real dad is except for me. [I am] angry and frustrated that I can't get information about my heritage, genetics, looks, and medical history. I feel that half of my identity has been stolen by the doctor, and that is unjust.

[I am] frustrated at not knowing more about my biological dad and his family; curious.

[I have] grief over not knowing half of my family.

In fact, it is possible that at least some respondents prefer this (imagined) person: 24% of respondents said that they were initially relieved to learn that the man they thought of as their father was not their biological father; 28% of respondents reported ultimately

feeling sad that they would never know their biological father (Table 3.6.B.2).

The lesbian two-parent DC offspring are much less likely to comment in here. When they do, most simply say that DC is “normal” and that they have “never known anything different.”

Facing the world

Finally, respondents were asked an open-ended question that allowed them to comment on what had been the hardest thing about talking about being donor conceived. Seventy-three percent ($N = 228$) of the respondents added a comment (64% [$N = 62$] from lesbian parent families; 76% [$N = 166$] from heterosexual parent families). About a fifth (19%) of the sample said that nothing was particularly hard or difficult and an additional 10% said that they didn't talk about the issue. But many respondents indicated that there were issues that were hard (Table 3.7).

DC offspring have learned the “facts” of reproduction far before their peers and this is a salient issue they raised in their comments. Twenty-one percent express frustration with having to explain the processes of donor insemination to those who don't understand it. Not surprisingly, this response is found far more commonly among those who are younger and among those for whom the time of learning about DC came earlier. Three of the youngest respondents (all under age 15) said,

When they didn't have the “cell talk” and they didn't understand what I was talking about and they just looked at me like I was from another planet.

It is hard to explain to other kids. But I try. I have to talk slowly and think about what I am saying and what they are asking.

The technicalities of it – “So you are adopted?” “Do you have two Dads then?”

One other significant issue emerged: about a fifth (21%) of DC offspring say that they experience a form of dissonance, where other people do not understand their feelings about DC. In contrast to the issue of “ignorance,” this feeling that others do not understand the feelings one has about DC is more common among those who are older and among those who learned of their DC at a later age.

Being from a lesbian two-parent or heterosexual two-parent family differentiates among several of these responses. The respondents from lesbian families are more likely to be concerned that someone is judging them (26% versus 9%) and this relationship holds true at the youngest age level. This concern might be a stand-in for concern about bigotry toward LGBTQ families in general, although there is no difference between the two sets of respondents on this issue overtly. Respondents from lesbian families are also more likely to experience frustration with having to explain their DC offspring status (47% versus 11%) and this holds true at the youngest age level as well as among those who have always known of their DC status. Respondents from lesbian families confront the ignorance of their peers earlier.

These concerns (about judgment and ignorance) are sometimes expressed as frustration that other people want to put DC within lesbian families into ordinary family terminology they understand, a terminology that does not work for DC offspring, especially with “out” lesbian parents:

Everyone thinks they know everything! When I tell them I don't have a dad they say “YOU HAVE TO HAVE A DAD! DID HE DIE OR SOMETHING?” then I say “No, I have two moms. They are lesbians.” and of course, I'm told “YOU CANT HAVE A KID WITHOUT A BOY AND A GIRL HAVING SEX ITS IMPOSSIBLE!” I'm so sick of it.

Getting others to understand that you don't have to have a dad to be born

Kids don't get it... adults are fine! Little kids don't understand how you "don't have a dad." But I'm in middle school, and it's mostly good now.

For these offspring in lesbian two-parent families the concern is about *outward appearances* rather than about what happens within the family.

Respondents from heterosexual families are more likely to feel misunderstood than are those from lesbian families (26% versus 8%). Respondents from heterosexual families are also more likely to say that it is difficult not to know who their (biological) fathers are (12% versus 3%) and that being DC offspring produces complicated relationships in the family (16% versus 0%).

In their comments about these issues, the DC offspring from heterosexual two-parent families suggest that their difficulties emerge *within* the family. One of these difficulties is that of talking about DC with their fathers (that is the father they live(d) with). Of course, in expressing these concerns, the DC offspring in heterosexual two-parent families are displaying their own anxieties as well as projecting those anxieties on to their fathers – the fear that infertility is emasculating; the worry that the absence of a genetic connection is “sad” for a father; and the concern that the father will feel rejected or “left out” by talk of the donor:

Fear of emasculating my father, of hurting him in all this.

Worrying about my Dad knowing how I talk about it, and him feeling left out.

Feeling sad for my dad. And being reminded of the lack of genetic connection. To him, and his whole side of the family. None of my aunts/uncles/grandparents/cousins are even related. (None of them know I was donor conceived).

Other DC offspring in heterosexual two-parent families talk about the discomfort involved in the secrecy and of “passing” with relatives and other people (and in at least one case of an older DC offspring it seemed as if the father did not even know about the DC).

The fact that my dad's family ... doesn't know, while I talk freely about it with everyone else in my life.

Discussing it with friends is not really a problem. But because my father must never know that I was donor conceived, I cannot discuss the issue with anyone in, or associated with, my family except for my mother.

Discussion

As a group with diverse ages and family backgrounds, DC offspring use a variety of terms to describe the donor: a minority deny him personhood (a vial); some suggest personhood (“donor”; “sperm donor”); and some draw on a relational term (“biological father”). Whatever term they use, over four-fifths of DC offspring want to contact the donor and over half of them want to be known by the donor. The respondents thus make the donor a person who could enact his humanity by knowing his offspring.

Respondents who want to contact the donor do so because they believe he holds clues about their selves, their health and their ancestry; they are also downright curious about what he looks like. Of course, these responses have become normative and accepted reasons why someone would want to meet biological matter (Freeman et al., 2009; Hertz & Mattes, 2011; Scheib & Ruby, 2008).

With the exception of a concern about health, these responses muddy any remaining assumptions about the separation between

genes and the environment (Grace et al., 2008). Learning about the self entails both who one is as a material (biological, genetic) individual and how one functions in the world (as a social and relational being); ancestry locates the self both as a biological being (who are one's genetic forebears) and as a relational being with respect to the donor (where does one exist on a family tree). To see what the donor looks like enables one to measure oneself against a material being (height, skin tone, eye color etc.), and, inevitably a social being (how they have aged, expression, hair styles, dress). Seeing the donor also enables one to measure reality against imagination (is he as handsome as I hoped). Only the donor can provide these additions to a DC offspring's stock of self-knowledge.

An interest in having contact with the donor, however, does not mean an interest in having a relationship with him: the DC offspring want to be known by the donor and they want a donor who is known to them, but they do not necessarily want to take the relationship further. In short, the donor is conceived of as being a person (he can know you; he has looks; he can teach you about yourself) and the donor should act on his humanity (he should know about you). However, the donor might not have a place in your family (even if you have a place on *his* family tree). He is both claimed *and* kept at a distance.

Respondents also want to be in control of the process of contact (and they do not cede this control to their parents). In the past decisions about reproduction were *always* made by parents who had some sort of relationship; that usual “practice” is being contested by offspring who say that reproduction is neither “just” a biological act nor an act of joining two parents, and that they want to control decisions about whether and when to know the donor. To the DC offspring the donor is a part of their own selves – not a part of their parents' selves (or parents' relationships). Significantly, however, they do not think that contact with the donor will disrupt their natal family. But if the DC offspring do not want to disrupt the natal family, they inevitably challenge it. There are two parts to this challenge. First, they claim the donor as theirs because the donor exists outside of the natal family and had no physical relationship with the (biological) mother (i.e. intercourse). Second, they challenge the structure of a “traditional” family (even if it takes a non-traditional form) as they assert that even if they have been raised by their parents, someone else has significance to them. In addition, they challenge the donor himself. He gave anonymously; he gave only gametes; and that is all he agreed to do. But they reconstruct the donor, attributing humanity to what has been called “mere” cells and they claim that he should know of their existence because of their shared DNA. As a group, then, the DC offspring appear to reject the notion that the donor can sever the biological act from its social consequences. Put differently, they reject the notion that a donor is detached from personhood and they insist that he has an obligation to reveal himself. The desire that he allow his humanity to be enacted (by being known) and that he take seriously what he has done is very clear in the DC offspring comments. What the respondents say may also be a challenge to the broader system of the commercialization of gametes, but to the DC offspring it is constructed as the rights of DC offspring to be recognized by their donors, whether or not they want to claim him as a father.

The respondents, as a group, also suggest that if initially they are confused about their DC status, over time they come to think of that form of conception as making little difference in their lives. And while many experience frustration with having to explain DC or with having people misunderstand their feelings, a fifth say that nothing about talking about being DC offspring is difficult at all.

As noted throughout, both current age and the time of learning about DC shape attitudes. Older respondents (and those who learned later in life about their DC) are more likely to think of the donor as a biological father, more likely to want to contact the

donor, and more likely to view the donor as a source of information (about their selves, their health, their ancestry). Those who are older (but not those who learned about DC later) are more curious about what the donor looks like and, perhaps contradictorily, more likely to view donation as a simple act. The older respondents are now separated from the natal home: on their own, they want more kinship location (as many people's interest in genealogy increases with age); having only static medical information, they want to know about medical information relevant to their own aging processes. Older respondents also experience different initial concerns: they are more likely to remember being told of DC, more likely to feel confused, and less likely to treat DC with indifference. Some older respondents over time come to feel special; they also continue to be less likely to treat DC with indifference and they remain frustrated that other people don't understand the complexity of their feelings.

Finally, DC offspring from heterosexual two-parent and lesbian two-parent households differ on a range of issues. Some of these differences (such as calling the donor a "donor," wanting to have contact with the donor, or the inability to recall their initial feelings) either diminished in significance or disappeared entirely when family form is examined within the context of a single age group or a single group with respect to the time of learning about DC. And although our analysis does not allow the effects of age and timing of learning of DC to be fully disentangled from those of family form, we believe that the differences between offspring from heterosexual two-parent and lesbian two-parent households we observe are, at the least, very suggestive and, at the most, very telling. These findings of difference amplify earlier research which had suggested that offspring from lesbian-parent families and offspring from single-mother families showed greater curiosity about the donor than did offspring from heterosexual-parent families (Beeson et al., 2011). Our analysis, focusing *only* on a comparison of lesbian and heterosexual two-parent families, suggests that the difference by family form has to do not just with curiosity, but with an intricate set of characteristics that are attributed to the donor.

DC offspring in heterosexual two-parent households are more likely to use a relational term ("bio father" and among the youngest respondents "genetic father") to refer to the donor. Not having a father at all, the DC offspring from lesbian two-parent households appear to feel no need to make a distinct kind of father of the donor; he remains a donor. But because the DC offspring from heterosexual two-parent households have a father, they appear to have to (or want to) differentiate. And what we can best understand them as doing is differentiating among three (and not two [Grace et al., 2008] fathers). One father is a lost father – the combined biological and social father they thought was theirs until they learned of their DC conception. The second is the now "reduced" exclusively to the "social" father who no longer carries biological information. The third is the imagined one, the donor, who carries both biological and social (relational) information and the DC from heterosexual parent families are less likely to believe that his donation is a simple kindness that can occur without responsibility and without the obligation to reveal himself to his offspring.

The DC offspring from lesbian two-parent households also have an "imagined" progenitor in the form of the donor, but these offspring are more likely to see what he has done as a simple "kindness." Relative to the DC offspring from heterosexual two-parent households, DC offspring from lesbian two-parent families make that imagined progenitor a stick figure, who does not necessarily have to reveal himself and who does not carry the attributes and "authority" of a father.

The DC offspring from heterosexual two-parent households are more likely than are the DC offspring from lesbian two-parent

households to say they want to contact the donor to learn about health issues and this interesting difference (which cannot be accounted for by either a difference in age or the time of learning about one's conception alone) needs more exploration. The DC offspring from heterosexual two-parent households are also more likely than are the DC offspring from lesbian two-parent households to say they want to contact the donor to learn about ancestry and this finding is not changed by the separate introduction of either of the two variables of current age or time of learning about DC. In expressing this interest, the DC offspring from heterosexual two-parent households are not rejecting their natal families; they are, however, *adding other kin*. That is, they have come to understand kinship as both a social and a biological phenomenon. The DC offspring from lesbian two-parent households, on the other hand, are not equally enthusiastic about trying to make that other "family" anything of relevance. They are already a part of "chosen" families (i.e., extending the concept of family to include friends [Strathern, 1992; Weston, 1991]) and they already juggle the biological and social within their broader kinship networks. They might be more aware, even at a younger age, that a normative kin structure based on bio-genetic claims would run counter to how they are raised with two mothers.

When respondents talk about the issue of contact with the donor (in response to a question about advice to parents), the two sets of DC offspring both stress honesty. And respondents in both sets of households insist that parents should allow them to decide whether or not to have contact with the donor. Transparency is thus a desired stance in both sets of households; family organization does not make this issue more salient for some than for others *because the donor exists independent of family organization*. However, the significance of that stance may well be for entirely different reasons in the two sets of households because the two sets of households confront different issues.

Heterosexual two-parent families often represent themselves to the outside world as if the social father is the only father. Sometimes this representation is created internally as well when, as is often the case, the offspring has been denied access to information about the donor or even to the very fact of the donor's existence. In these cases the parents not only create a narrative of one (and only one) father, but they implicitly suggest that this one father can provide a sense of completeness and identity. But there is a donor and when asked what they would advise parents who were hesitant about having the offspring contact the donor, the DC offspring from heterosexual two-parent families reject the idea that the social father has all the information – or even love – they need to exist in the world ("your child needs [contact with the donor] to feel whole"; "[the donor holds] important information to a child's sense of self and biological heritage").

Lesbian two-parent families cannot so easily pretend that the donor does not really exist, but the members of these families have to decide how much importance to accord this biological connection. The DC offspring from lesbian two-parent families reject the notion that the biological contribution is completely unimportant. Again, they may reassure their two mothers that they are not searching for a father or a replacement for the family they have. But, when asked how to advise parents who hesitate to have their offspring contact the donor, they suggest that wanting to know about one's biological roots is normal. And here the idea of biology (not kinship; not ancestry) is more central as they talk about DNA ("it's family in the sense of DNA").

In short, both types of families on the surface deny the complexities of the relationship between the biological and the social. The heterosexual two-parent families are visible to the world as if both parents are both biological and social parents. The lesbian two-parent families are visible in the world in a fashion that

separates biological and social parentage (at least for one of the two mothers). When DC offspring say that they want to decide when – and whether – to contact the donor, they are rejecting these presentations.

Moreover, the DC offspring from heterosexual two-parent households want to know what was previously kept secret; they believe it holds clues to their personal identity. The DC offspring from lesbian two-parent households confront what might possibly be the family narrative (that biology does not matter; that they are only products of the loving nurture of two mothers) (Hertz, 2002). And they insist on knowing about their biological roots. These different concerns are echoed in statements from each set of DC offspring about their initial feelings about learning about their DC. DC offspring in heterosexual two-parent households learn about their DC later in life (often not until they are adults) and that knowledge is felt as a shock and betrayal (Blyth, 2012). Having never known any other way of being, the DC offspring from lesbian two-parent households have less reason for anger and less reason to feel betrayed.

Finally, the existence of the donor confronts the two groups of DC offspring with different issues vis-à-vis a broader public. For the DC offspring from heterosexual two-parent households the donor represents a concealed secret. To the DC offspring from lesbian two-parent households, the donor represents an awkward explanation (often with less informed peers) about the “facts” of reproduction. Knowing that they are DC offspring is knowing something about reproduction before sex becomes an interest for their peers.

In short, DC offspring from different family forms view both donor conception and the donor himself quite differently. DC offspring from heterosexual two-parent households have to confront the family narrative that their “father” is one person and they rethink the normative overlay of the genetic and social relations. Their responses to a range of questions suggest how secrets and anonymity might well fuel resentment over the lack of disclosure. DC offspring from lesbian two-parent households negate the donor as part of their family, since they do not have to make him a distinct kind of father. Yet, if they could some of these offspring would like to have contact with the donor and to be known by him, at the very least, to dispel the myth that they have no male progenitor. But because as a whole, the lesbian two-parent family challenges patriarchy, the donor can remain an item of curiosity. To be sure, he has humanity but he is divorced from fatherhood; he should be aware of his “offspring’s” existence and he should make himself visible to those offspring, but he need not carry the weight of the patriarchal family on his shoulders.

The medicalized (and commercial) procedures of insemination may have tried to conceal (through anonymity) and deny (through the language of sperm, gametes, and cells) the donor’s personhood. But DC offspring reject that concealment and that denial. Other studies such as Mamo (2005) and Hargreaves (2006) have shown both that parents pick and choose when to stress biology as opposed to social relations and that parents mingle biology and social characteristics even when selecting the donor and in discussions with each other and with the child about what might come from where. What we have shown is that DC offspring conceive of their conception as occurring with a human donor. But what they make of that donor is determined more by family form than it is by the nature versus nurture dichotomy. The DC offspring from heterosexual two-parent families grant the donor more of the qualities of the patriarchal father who creates offspring deserving of location on his ancestral line. Their lives are enmeshed not with two possible fathers but with three: one lost, one remaining (or lived with), and one imagined. The DC offspring from lesbian two-

parent families accept their family’s challenge to patriarchy; they want to know a less powerful (more contained) donor; and while they may have an imagined father (they don’t deny that they were created by a donor), he is imagined but not a member in their daily family.

In sum, both sets of DC offspring give the donor humanity; but only those from heterosexual families want to give him patriarchal fatherhood. But of course they can’t. Patriarchal fatherhood relied on the myth that the (social) father was the (biological) progenitor; indeed the law always made the father in the household the progenitor (at least until DNA tests came along) (Cott, 2002). Until anonymity gives way to identity-release donors, the donor – an imagined father (in the world of both lesbians and heterosexuals) – will always remain imaginary.

Acknowledgments

The authors are grateful to Steven Barash for his assistance in coding and data analysis. The first two authors contributed equally to this paper.

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