

# Donor Sibling Networks as a Vehicle for Expanding Kinship: A Replication and Extension

Journal of Family Issues  
2017, Vol. 38(2) 248–284

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DOI: 10.1177/0192513X166631018

jfi.sagepub.com



Rosanna Hertz<sup>1</sup>, Margaret K. Nelson<sup>2</sup>,  
and Wendy Kramer<sup>3</sup>

## Abstract

This article replicates an earlier study of mothers who had used the same sperm donor to conceive their children and connected through the Internet. The original study finds that these groups interact mainly on the Internet; donor siblings are latent affiliations that could answer questions about the paternal side. This new study of 2,217 parents and 419 offspring offers a comparison of the manner in which these relationships develop, finding that the movement from latent to active ties occurs at a different moment than the earlier study. The data show that parents and offspring interpret relationships with genetic relatives in some ways that are similar. However, offspring are more likely than parents to view donor siblings as members of their extended family. Replication of the original study with a more diverse sample allows us to determine if the basic findings can be generalized to other participants who share the same circumstances.

## Keywords

donor siblings, kinship, Internet, social networks, parent–child perspectives

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<sup>1</sup>Wellesley College, Wellesley, MA, USA

<sup>2</sup>Middlebury College, Middlebury, VT, USA

<sup>3</sup>Donor Sibling Registry, Nederland, CO, USA

## Corresponding Author:

Rosanna Hertz, Wellesley College, 106 Central Street, Wellesley, MA 02481, USA.

Email: rhertz@wellesley.edu

In the article “Donor-Shared Siblings or Genetic Strangers: New Families, Clans, and the Internet,” published in 2011 in this journal, Rosanna Hertz and Jane Mattes (2011) argued that the relationships formed through the use of social media among mothers who had used the same sperm donor to conceive their children had the *potential* for transforming social kinship even if those relationships lived mostly in virtual space, on the Internet. In their analysis of contact among the mothers of donor-conceived offspring, Hertz and Mattes emphasized that social media becomes a connector that cannot on its own transform newly discovered genetic “relatives” (and especially the family members of what have been called donor siblings) into social relationships (such as naming them as kin) *unless* individuals choose to make those transformations through deliberate actions. Furthermore, while acknowledging that the “use of the Internet to find genetic kin and form meaningful social bonds is an amazing leap from the anonymity of a vial of sperm with which these families began” (p. 1153), Hertz and Mattes suggested that for some respondents, donor siblings were a “latent affiliation—an insurance policy for future questions by their children” (Riley, 1983)—while for others the newly found donor siblings and their parents developed into a more significant, active, or ongoing, bond. They offered no prediction about how that balance would shift in the future. That is, they did not say whether more parents would take these genetic ties and form them into meaningful social relationships nor do they suggest what form those social relationships, when they occurred, would take. They do offer one prediction in their conclusion which is that the children (offspring) connected through a shared donor (the donor siblings themselves), rather than the parents of those children, “may be more comfortable moving offline” (Hertz & Mattes, 2011, p. 1153).

In this article, we again explore the relationships that develop among genetic relationships as they begin online and even move into face-to-face meetings. And as we investigate that issue we do in sociology what is only occasionally done in that field (Freese, 2007; Lucas, Morrell, & Posard, 2013; Morrell & Lucas, 2012): We replicate a study to find out how an emergent phenomenon changed over the span of 5 years. Moreover, as we do, we accomplish two additional goals. First, we expand our understanding of the trajectory and types of relationships that develop among the parents of donor-conceived children who shared the same donor as we ask some new questions and introduce some new data. Second, we also compare parents and offspring, a comparison that extends in a new direction the findings of Hertz and Mattes (2011) that focused only on relationships among parents.

No public agency counts the number of children conceived through sperm donation, and it is impossible to tell whether the number of people relying on this reproductive technology has changed since Hertz and Mattes conducted

their research.<sup>1</sup> Three documented changes are apparent and relevant. First, the population of parents relying on donor sperm continues to shift from heterosexual couples to single mothers and the members of lesbian couples (Mamo & Allston-Stepnitz, 2015). Second, the proportion of donors who agree to be identified when offspring turn 18 has grown substantially to meet market demands while retaining quality control (Spar, 2006, <http://www.fairfaxcryobank.com/childrenbyDI.shtml>). And third, more banks and free-standing registries offer to link families who share a common donor and increasing numbers of people sign up for these services (<https://www.donorsiblingregistry.com/content/our-members>).<sup>2</sup>

The possibility of these new kinds of relationships, based in biological connection but invigorated by choice, has fascinated the general public as well as a number of scholarly communities. Indeed, the media have latched on to these possibilities through popular movies (*The Delivery Man*), TV specials (*Generation Cryo*), and documentaries (*Donor Unknown; Sperm Donor*). Newspapers have chronicled unforeseen outcomes of donor use: headlines announce the hunt for donor siblings (Harmon, 2005), the large numbers of offspring (in one case, 150) conceived from a single donor (Mroz, 2011), and publicize the chance meetings of donor-conceived siblings, drawn together by their similarities (“College Friends Shocked to Find out They’re Half-Sisters by Sperm,” 2014).

On the academic side legal scholars have begun to explore the basis in family law for the foundation and development of these relationships (Cahn, 2013, 2014; Glennon, 2016). Naomi Cahn (2013), for example, states on the front cover that her book “is about how families are made and how bonds are created in the brave new world of reproductive technology, and it dramatically reveals the ongoing cultural change in the way we think about family” (p. ix). Her evidence for relationships among donor-conceived individuals (or within networks of people bound together by a shared donor) relies on what she calls “anecdotes” (p. 85) taken from the several studies reported below and on legal case law.

Scholars in the fields of science, technology, and society (Thompson, 2007) and anthropology (Carsten, 2000, 2004; Edwards, 2013; Franklin & McKinnon, 2001; Strathern, 1992, 2005) have explored notions of kinship in general and, more specifically, how development in assisted reproductive technologies (ARTs) intersects with existing notions of who is—and who is not—kin. Anthropology’s dynamic orientation toward a concept of kinship as “relatives connected to one another without any supposition of what kind of social group or family they make up” (Strathern, 2005, p. 167) has worked well to explore theoretically how ARTs and their social consequences destabilize our usual understanding of the “facts” of procreation and reproduction

and how these are relevant to the creation of “family.” These anthropologists emphasize, as do others, that what is remarkable about these new relationships is that the kinship link is both “involuntary (given through the circumstances of one’s conception) and entirely voluntary” (Edwards, 2013, p. 289). Much of this scholarship, however, has remained in the realm of theory. Edwards points out that “[w]here the limits of the network [created through shared donors] are and how stable or enduring it may be are ethnographic questions” (p. 289); we would add that, for now, only minimal data exist to answer those questions.

With few exceptions (e.g., Hargreaves, 2006; Mason, 2008; Nordqvist, 2014; Nordqvist & Smart, 2014), sociologists studying ARTs have focused almost exclusively on narrow attitudes of recipients rather than on broader issues of connectedness among parents and children tied together through a single sperm (or egg) donor. To be sure, there has been more scholarly research since 2009 when there were but two studies of parents and one of offspring. (The Hertz and Mattes research reported in 2011 was essentially the fourth study on this topic.) However, this research has still told us very little about the nature of ties among parents whose children share the same donor or among the children themselves. The first of these studies, by Scheib and Ruby (2008), relied on two data sets: interviews with 14 parents and archival data of about 515 families; in both cases the data came from The Sperm Bank of California (TSBC). From the interviews, Scheib and Ruby (2008) reported that the motivation for contact with donor siblings (among the 14 clients of TSBC) focused on the possibility of creating a new form of family for the child and of addressing questions about the donor. They also reported that most parents had positive experiences with contact with other families (although there was some initial discomfort) and that the children were both curious about and positive toward donor siblings. The archival data suggested that it was predominantly families with open-identity donors and those headed by single women who took advantage of the “matching service” the bank offered while heterosexual-couple families were less likely to do so.

A year later Freeman, Jadva, Kramer, and Golombok (2009) drew on online surveys completed by 791 parents recruited via the Donor Sibling Registry (DSR), an independent nonprofit registry that matches parents, offspring, and donors with each other. Once again, an examination of motivations for searching for donor siblings concluded that curiosity was paramount. And once again (as in the Scheib and Ruby study), most parents reported positive experience of meeting the child’s donor siblings among the 136 who had had that experience. Freeman et al. (2009) reported as well that the relationship, as indicated by the parents, between children and their donor siblings was constructed as being “familial” and that children often chose to

refer to one another as brothers and sisters. The children, themselves, were not interviewed.

Since other researchers had found that single mothers are more likely to initiate searches for donor siblings and to have contact with donor siblings (Freeman et al., 2009; Sheib & Ruby 2008), Hertz and Mattes (2011) sent an online survey to the membership of the organization Single Mothers by Choice (SMC) in 2009 to gain further understanding not only of why SMC respondents searched for genetic relatives but of how the next stages in possible formation of shared-donor networks developed. Their survey included questions about various kinds of communication online and in person and the meaning of these relationships. In their review of the literature they make note of what they see as an “uneasiness from the families in [Scheib and Ruby’s study] about the overlay of ‘ordinary’ kinship meaning” (Hertz & Mattes, 2011, p. 1132) in the unusual circumstance of families tied together by genetics. And as they explore the dynamics of these “new families” and “clans,” Hertz and Mattes pay special attention to hesitation (lurking on line) on the part of parents. They note as well that parents are cautious as they move from contact on the Internet to actual face-to-face meeting.

Since that study, other scholars have begun to explore the attitudes of donor-conceived offspring as well as parents. Jadvá, Freeman, Kramer and Golombok (2010) conducted the first study of these with data from 165 donor-conceived offspring who answered a survey recruited through the DSR. They found that 33% ( $N = 42$ ) of the offspring who were searching for donor siblings had found them and that 95% ( $N = 40$ ) of those who had found them had actually been in contact with them. They also found that 50% were in contact with their donor siblings at least once a month and the rest were in contact every few months. While the authors do not explore what form the contact took over time (e.g., only online, by phone, actual meeting in person) they do establish that for the majority of those who had actually met their donor siblings, that experience was “very positive.”<sup>3</sup> Nelson, Hertz, and Kramer (2013) draw on this same set of data to further explore the attitudes toward donor siblings among donor-conceived offspring. They report that the donor-conceived offspring regard donor siblings as special relations who will not disrupt the natal family and who might even become part of a new kind of family.

The surveys these latter articles are drawn from did not pursue the question that was central to Hertz and Mattes of how social media is used and how it facilitates relationships among families, or the related question of what type of relationships are developed. Furthermore, since these articles were written offspring, who are part of the digital generation, have become teens and young adults, making it important to explore how they (in contrast to

their parents) actually pursue (rather than imagine) and develop relationships with genetic kin.

Another study does look more closely at the issue of the nature of relationships among donor siblings. In a 2012 qualitative study, Eric Blyth reported on eight offspring raised in heterosexual-couple families who had discovered the identity of their donor and made contact with donor half-siblings. Referring to the members of this group as “Clan X,” Blyth indicated that they had moved from “latent ties” (as Hertz and Mattes had suggested, drawing on a concept introduced by Riley [1983]) to come to view each other as part of “a vast extended family” (p. 5) even though living far away made it difficult to meet. The small number of cases in Blyth’s study—and the homogeneous sample—precludes generalizations while suggesting issues that might be pursued.

None of these studies directly explores differences between parents and offspring and thus they leave unanswered questions about whether there are differences between these two stakeholders in how they establish and develop relationships with donor siblings and their parents. This article does precisely that. As noted, the previous studies also leave unanswered questions about how the trajectory from online meeting to personal contact develops and whether it develops differently now than in the past. This again, is something we do here. Finally, none of these studies pursue the question of what it means to be “a vast extended family” (Blyth, 2012) and whether the definition or boundary of these relationships—their reliance on a notion of “family”—is the same for parents and offspring. In what follows we delineate the difference between nuclear and extended family as donor-conceived relatives for parents and offspring. This is a third contribution of this study.

## Method

### *Data Collection*

The data for this study come from an online survey developed by the authors. Invitations to answer the online survey were sent to parents and offspring via e-mail to all members of the DSR and to a variety of other organizations including SMC. The DSR and SMC have overlapping memberships. In total, 9% of the parents (and 1% of the offspring) responding to this survey came through the invitation distributed by the SMC, while 68% of the parents (and 65% of the offspring) came through the invitation distributed by the DSR; there is no way to know how many of the DSR members are *also* SMC members. It is not possible to know if parents and children *within families* have the same (or different) views because the parent and offspring surveys are not

linked. We provide data from both perspectives where relevant. In our discussion and conclusion we are attentive to the different sources of data and the possibility that our findings result from reliance on a distinctive population of respondents.

Invitations to participate in the survey were also posted on Craigslist in four large urban areas as well as on several other websites including ParentsviaEgg donation.com, and Resolve.com. Several organizations also posted to their memberships on their Facebook or newsletter sites (facebook.com/colage/pflag; ourfamilycoalition; familyequality.org; and mombian.org) asking people to participate. Details of the study were also available on the DSR website on an open-access webpage and on the SMC Facebook page. Rosanna Hertz also posted on several alumni Facebook pages and a post about the study went out as a tweet to various organizations mentioned above. A total of 23% of the parent respondents (and 34% of the offspring) came from one of these other sources. The surveys were online from May 12, 2014 to August 15, 2014. Approval for this study was obtained from the institutional review boards at Middlebury College and Wellesley College.

The surveys were explicitly designed to accomplish three goals: (1) to replicate elements of the research conducted earlier by Hertz and Mattes; (2) to allow for a direct comparison of parents and offspring; and (3) to explore more fully than had been done in previous studies the trajectory and form of the relationships developed among individuals linked by a shared donor. To accomplish these goals, many of the questions were identical to those asked on the Hertz and Mattes study and identical questions were asked of both parents and offspring in the study reported here.

It is impossible to calculate a response rate for these surveys because they were made available at so many different locations. In any case web surveys generally have relatively low response rates (Couper, 2000). Random studies of parents and offspring are unlikely although there is one known study of attitudes toward these issues among offspring that drew on a representative sample (Marquardt, Glenn, & Clark 2010).

Most 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-shorthand (e.g., u equals you). Otherwise, the responses are as written on the surveys.

## Respondent Characteristics

A comparison between the parents in the Hertz and Mattes study and those in the current study is presented in Table 1. Hertz and Mattes draw on data from 587 parents. Over 2,000 parents and over 400 offspring responded to the more recent surveys. The parents who responded to the current survey differ in some ways from the respondents to the Hertz and Mattes survey. Not surprisingly, given that the survey was distributed through a variety of different organizations, the respondents for this study are less exclusively single, never married (35% in contrast with 76% of the Hertz and Mattes respondents). They are also somewhat older (with 28% age 50 or older in comparison with 12% of the Hertz and Mattes respondents), their first (or only) child is also older (37% age 10 or older in contrast with 13% of the Hertz and Mattes respondents), and more of them have more than one donor-conceived child (33% in comparison with 24% of Hertz and Mattes respondents) (Table 4A). In other ways they are similar: predominantly White (94% in comparison with 92% of Hertz and Mattes respondents) and predominantly female (97% in comparison with all but 2 of the Hertz and Mattes respondents). Over half of the parents who responded to the 2014 survey reported that they were heterosexual, a third reported being homosexual/lesbian/gay, and the remainder checked some other response. By and large this is a well-educated and well-off group of respondents: 70% have education beyond a BA and 49% report incomes more than \$100,000 per year.

As Table 1 shows, the offspring are in some ways even more diverse than the parents, ranging in age from 13 to over 50 (mean = 23.4), and a fifth (21%) of the respondents were men. Like the parents, the offspring are predominantly White (99%). A third of the offspring have at least one sibling conceived with donor sperm. Among those who are 18 or older, 44% currently have a partner and 82% consider themselves heterosexual or straight. Half (54%) of the offspring were born into a heterosexual-couple household and 18% were born into a lesbian-couple household. Over a quarter were born to a single mother.

## Findings

### *Searching For Donor Siblings*

In 2009, Hertz and Mattes found that among their respondents 61% had taken steps to locate donor siblings (Table 2). Five years later we find among *parents of various different types* three quarters (74%) had taken steps to locate siblings.<sup>4</sup> In addition (but not shown in the tables), 10% of the parents said



**Table 1.** Respondent Characteristics.

Characteristic	Hertz and Mattes (2009)	Current survey (2014)	
	Parents	Parents	Offspring
Current marital status <sup>a</sup>			
Single, never married	76%	35%	52%
Currently single		15%	b
Partnered		48%	44%
Other		2%	4%
Total		100%	100%
N	587	2,134	327
Current age (years)			
13-18			23%
19-30			50%
<30	4%	2%	b
30-49	84%	70%	24%
50+	12%	28%	3%
Total	100%	100%	100%
N	587	2,134	423
% Heterosexual/straight (only asked of those older than 18 years)		56% (2,134)	82% (327)
% Women	~99% (587)	97% (2,134)	78% (418)
% Caucasian	92% (587)	94% (2,134)	99% (423)
% Education above a BA <sup>a</sup>	69% (587)	70% (2,134)	
% Income more than \$100,000 <sup>a</sup>	22% (587)	49% (1986)	
Age of oldest child (years)			
<5	60%	38%	DNA
5-9	27%	25%	DNA
10+	13%	37%	DNA
Total	100%	100%	
N	587	2,134	
Number of donor-sperm children	Parents	Parents	Offspring
One (asked as "at least one for offspring")	76%	67%	36% (423)
More than one	24%	33%	
Total	100%	100%	
N	587	2,134	

(continued)

**Table 1. (continued)**

Family when born	Offspring
Mom and dad	54%
Two moms	18%
Single mom (straight)	22%
Single mom (lesbian)	5%
Other	1%
Total	100%
N	423

<sup>a</sup>Data provided from 2009 study by Rosanna Hertz. <sup>b</sup>Response categories are different for Offspring and Parents.

they would do so at some other time, 2% said that someone else had found them, and 13% gave some other response; only 11% said that they had no interest in searching for genetic relatives of their offspring either now or in the future. Parents of grown children (aged 19 years and older) are least likely to have searched already or to have plans to do so, while those with the youngest children (5 years and younger) may not have done so yet but are most likely to have plans to do so in the future.

A modestly smaller percentage (69%) of *offspring* than parents searched for donor siblings. An additional 12% of offspring said that they had plans to do so, less than 1% said someone else had found them, and 7% gave some other response; only 13% said that they would not search for donor siblings in the future. Offspring in their teens were less likely than those who were older to say that they had no plans to search for donor siblings: 6% of those in their teens and 15% of those older than that say they have no plans to search for donor siblings.

When *parents* take the step of searching for donor siblings *alone* (i.e., without their children) 62% report that the most important motivation is their interest in having information in case of a medical emergency; next most important is wanting to know more about the child's genetic heritage; third is wanting their child to have the possibility of having a larger extended family (Table 3A). Parents who engaged in a search for a child's donor siblings on their own often started the search when their child was very young; some started before their child was even born. When parents take the step of searching *with their children* their motivation is more *for* the children—wanting their children to have an extended family and wanting to know more about the child's genetic heritage. The comparative data that exist suggest that over time there was not much difference in either the ordering of responses about reasons for searching for donor siblings (as reported in the previous paragraph) or the proportion of parents giving each response.<sup>5</sup>

**Table 2.** Identifying, Contacting, and Meeting Donor Sibling Families.

	Current survey (2014)									
	Parents					Offspring				
	Age of oldest child in years					Current age in years				
Hertz and Mattes (2009)	0-5	6-10	11-18	19+	Total	13-18	19-29	30+	Total	
Search for donor sibling families	61% (356)	80% (404)	82% (364)	69% (199)	74% (1,706)	79% (114)	61% (194)	72% (134)	69% (422)	
Located or identified donor sibling families	84% (333)	80% (379)	79% (350)	53% (188)	72% (1,577)	74% (92)	49% (138)	16% (94)	47% (324)	
Communicated with donor sibling families	64% (289)	92% (93)	93% (59)	97% (105)	91% (1,209)	90% (67)	90% (69)	94% (17)	91% (153)	
Met in person	33% (289)	43% (468)	59% (262)	57% (91)	50% (1,103)	67% (60)	58% (62)	75% (16)	64% (138)	
Met more than one time (for offspring, met same family more than one time)		66% (205)	67% (141)	72% (155)	71 (52)	68% (553)	54% (39)	56% (35)	58% (12)	55% (87)

**Table 3.** Reasons for Contact With Donor Sibling Families.

	Hertz and Mattes (2009)		Current survey (2014)					
	Why wanted to meet donor sibling families (percent saying reason was Important or Extremely Important)		Why wanted to identify or locate donor sibling families (percent checking each response)		Total			
	%	N	%	N	%	N		
A: Parents								
I was curious about other children and what qualities they share with my child / my child was curious (2014)	67.4%	347	19.3%	716	49.7%	521	32.1%	1,237
I wanted my child to have the possibility of a larger extended family	64.9%	348	49.0%	765	54.9%	530	51.4%	1,295
I wanted to know who they are in case of medical necessity	55.8%	346	62.1%	762	49.9%	535	57.1%	1,297
I wanted relationships of some kind with the donor's other genetic children	50.9%	346	41.5%	759	45.4%	533	43.1%	1,292
I wanted to know more about my child's paternal side /I had questions about genetic heritage (2014)	39.7%	343	51.6%	768	54.0%	531	52.6%	1,299
My child was asking questions about paternal side /my child had questions about genetic heritage (2014)	10.3%	339	14.9%	725	31.2%	519	21.7%	1,244
I was looking for more vials of sperm/eggs or sperm (2014)	9%	344	16.4%	756	10.1%	523	13.8%	1,279

(continued)

Table 3. (continued)

	Offspring took steps alone		Offspring took steps with parents		Total offspring	
	%	N	%	N	%	N
<b>B: Offspring</b>						
I was curious about other children and what qualities they share with me	80.1%	141	88.2%	51	82.3%	192
I wanted to have the possibility of a larger extended family	43.0%	142	47.1%	51	44.0%	193
I wanted to know who they are in case of medical necessity	54.2%	142	35.3%	51	49.2%	193
I wanted relationships of some kind with the donor's other genetic children	52.1%	142	70.6%	51	57.0%	193
I wanted to know about my genetic heritage	83.1%	142	74.5%	51	80.8%	193
I wanted to create memories	44.3%	140	45.1%	51	44.5%	191
I wanted to build friendships	53.2%	141	51.0%	51	52.6%	192

**Table 4.** Number of Shared Donor Sibling Families Found.

No. of different families found	Hertz and Mattes (2009)	Current survey (2014)	
		Parents	Offspring
0	13%	28%	53%
1	15%	13%	18%
2	12%	10%	10%
3	14%	9%	3%
4	9%	8%	6%
5	11%	6%	3%
6	4%	5%	1%
7	4%	3%	1%
8	3%	3%	1%
9	3%	1%	1%
10-19	4%	8%	2%
20 or more	5%	3%	1%
Total	100%	100%	100%
N=	333	1,647	319
Average	4.4	4.0	1.6
Average excluding none		5.6	3.4

*Offspring* are mostly motivated by wanting to know about their genetic heritage and curiosity about their donor siblings (whether they take steps to search alone or with their parents) (Table 3B). In fact the offspring are slightly more interested in general relationships (albeit not necessarily familial relationships), including friendship with donor siblings and knowing their genetic heritage, than are the parents; parents are somewhat more concerned about medical issues (an insurance policy, as Hertz and Mattes suggested), and parents are also somewhat more likely to see in these donor sibling families the potential for a larger extended family.

### Finding Families

As Table 2 shows, Hertz and Mattes report that in 2009, 84% of the families that had searched for genetic relatives had found at least one shared-donor family; in 2014, a smaller percent of those parents who had searched had actually found a shared-donor family (72%). The proportion who found a shared-donor family is lowest at 53% among those with children over 18; it is between almost three quarters and 80% for the other three age-groups (0-5, 6-10, and 11-18) suggesting that the “success rate” has stayed relatively

stable among those with younger children, but that those with older children are now searching as well and it is harder to find the other donor siblings when children are older. As was the case in 2009, most of the respondents found each other through an Internet registry (DSR = 70%, bank = 13%, another website = 6%). As was the case 5 years earlier, some parents did their searches independently and ingeniously: “[I] contacted members of a local single women’s group who had used the same local clinic [and] did an Internet search of the donor to see who else had used him.”

Among *offspring* a smaller percent (47%) of those who searched had found families (Table 2). But once again, the issue of age is relevant because it represents the passage of time and changes in the possibility of making contact. The majority of those offspring who are younger (<19 years) have found donor siblings (74%) in contrast with 49% of those in their 20s and only 16% of those who are older than 20 years. And, like the parents, offspring made contact through banks (5%), the DSR (72%), and other websites (7%). Some offspring (4%) also used a DNA test. Two respondents had random meetings. Like the parents, offspring could be ingenious (and relentless) in their search for donor siblings:

[I looked on] 23andme (she had a generic profile and wasn’t responding to my e-mails) [and then turned] to ancestry.com where I figured out who she was from surnames listed in 23andme [and then went] to Facebook where I found her sister and then we talked.

Because larger numbers of offspring and parents are searching now than in the past, there is a greater chance of failing to find genetic relatives, especially among the parents with older children and the older offspring themselves. However, the means for finding donor siblings have not changed much in the past 5 years.

### ***How Many Donor Sibling Families and Donor Siblings Are Found?***

The media love to report astonishing facts such as that of 150 offspring from a single donor (Mroz, 2011). In fact, among those who are searching for donor siblings, on average, the parents report having located or identified four different families (or 5.6 if those who found none are excluded), which is not dissimilar from that found by Hertz and Mattes several years ago, albeit a bit lower. As Table 4 shows, the number with over 20 different families is very low.

Offspring have found even fewer families, an average of 1.6 (or 3.4 if those who found none are excluded). We assume this is because the offspring who are searching on their own are, on average, older than the offspring of the parents who answer the survey. Among offspring who are in their teens the average number of families found is 4.4; among those in their 20s it is 3; and for those in their 30s it is 1.4. The older offspring represent the “past,” while younger offspring and their parents represent the future of donor sibling relations. On average, offspring report that they have 4.8 donor siblings among the families they have identified. This too varies with age: the youngest group report an average of 6.7 siblings; those in their teens report an average of 3.8; and those in their 30s report an average of 1.9. The maximum reported is 38 (unlike the parents who report the higher numbers). Only 13% report having more than 10 donor siblings and only 3% report more than 20.

### *Getting to Know You*

Five years ago, as Hertz and Mattes show (Table 2 and Table 5), although 84% of those who searched for donor siblings found someone, and 74% of those who found someone had exchanged e-mails with a donor sibling family (the most common form of communication), only 64% remained in touch with at least one donor sibling family. In the 5 years after the Hertz and Mattes data were collected, the proportion of families who communicated with at least one donor sibling family (among those who had been found) bloomed from 74% to 91%. And that figure is essentially the same for the parents of children in all four age groups. Parents who locate donor sibling families communicate with them.

Furthermore, as Table 5 shows, there is far more face-to-face meeting. For Hertz and Mattes only 33% had actually met a donor sibling family. Five years later, half of all the families had met another family, and this was especially common after the children were age 5 (and even more common among families with children in their teens or older). In effect, parents 5 years ago may either not have had the inclination to move offline and meet in real time or, today as opposed to 5 years ago, meeting is more a part of the “package” of contact. And indeed, both of these explanations might be likely. In any case, this difference (between the rate of meeting a donor sibling in the Hertz and Mattes data and the rate of meeting a donor sibling in the 2014 data) is not just an artifact of the more recent survey having a population with older children: In 2009, 14% of those with children 0 to 4 had met in person another donor sibling family; in the current survey 43% of those with children 0 to 5 had met in person another donor sibling family. For those with older children the difference is similar (albeit a bit smaller): In 2009, 30% of those with children 5 to 19 years had met in person another donor sibling family; in the current survey (between 50% and 59%) of those with children 6 to 18 years had met in person another donor sibling relative.



**Table 5.** Kinds and Rates of Communication.

A: Kinds of communication	Hertz and Mattes (2009)		Current data (2014)	
	Parents (N = 289)		Parents (N = 1,015)	Offspring (N = 138)
Exchanged e-mail	74%		91%	90%
Exchanged photo	64%		89%	88%
Talked by phone	21%		44%	40%
B: Rates of communication (current survey only)	Parents		Offspring	
	Mean	N	Mean	N
Number of families exchanged e-mails	4.9	1,015	2.9	124
Number who exchanged photos	5.8	993	3.6	122
Only through Internet group	6.4	562	3.5	84
Through DSR	3.6	429	2.7	55
Talked by phone	2.6	486	2.3	79
Met in person	2.6	551	2.99	75
Communicated in some other way (not asked of parents)			2.98	83
C: Average number of contacts per year with donor sibling families	Hertz and Mattes (2009)		Current data (2014)	
	Parents		Parents	Offspring
Internet group	14.2		47.54	28.30
Individual e-mails	10.2		8.94	15.29
Group e-mails	5.9		10.45	10.16
On the phone	2.3		6.88	16.32
Through DSR	a		0.92	6.16
Total with DSR	32.6		74.72	76.23
Total without DSR			73.81	70.07
N	220		1,015	138
D: Benefits of contact (current survey; parents only) (Check all that apply)			N	%
No benefit			41	3.8%
Medical information			710	65.1%
Developmental information			644	59.0%

(continued)

**Table 5. (continued)**

D: Benefits of contact (current survey; parents only) (Check all that apply)	N	%
Information about personalities	798	73.1%
Physical information	642	58.8%
I can see what they look like	903	82.8%
I can see how they change over time	729	66.8%
Relief from knowing that my child's issues are shared	437	40.1%
Our family circle is wider	588	53.9%
Other	127	11.6%
E: Best part of communicating: Current survey; offspring only	N	%
Common connection	57	42%
Exclusionary experience/understanding	19	14%
Cosmic bond	14	10%
Family discovery	31	23%
Relationship building	5	4%
Other	11	8%
Total	137	101%

Note. DSR = Donor Sibling Registry.

\*Response option not offered in 2009 survey.

Not only is there more meeting, but according to the current survey most of those (68%), who meet do so more than one time (Table 6). And this is true across the board by age. In short, although Hertz and Mattes suggested that these relationships might live primarily in virtual space and that it would be the *offspring* who might move them offline, the current data suggest that at least half of the parents along with their children are now moving these relationships offline into actual meetings that occur at least once and often more than once.

Among *offspring* the trajectory of location, communication and meeting is similar in some ways, and different in others, to that of parents. Sixty-nine percent of offspring have searched for donor siblings; among the offspring a smaller percent (47%) have actually found a donor sibling (Table 2). But age is significant here: Those older than 19 years are considerably less likely to have found any donor siblings than are those younger than 19, and for those younger than 19 the rates are closer to (and even a bit higher than) that of parents. Rates of communication are high among *all* ages of offspring who have located a donor sibling, hovering at an average of 91% who have communicated with at least

**Table 6.** How Frequently Donor Sibling Families Get Together (Current Survey).

A: Parents: How frequently get together	Age of child (years)				Total
	<5	6-9	11-19	20+	
Few times a week	1%	0%	0%	0%	4%
Weekly or more	2%	3%	2%	0%	2%
Monthly	8%	3%	5%	6%	6%
Several times	32%	25%	22%	22%	26%
Once a year	42%	44%	40%	33%	41%
Less than once a year	16%	25%	32%	39%	25%
Total	100%	100%	100%	100%	100%
N	132	93	107	36	367
More than once a year	42%	31%	28%	28%	34%
Met more than one time	61%	69%	70%	62%	68%

  

B: Offspring: How frequently get together	Age (years)			Total
	Teens	20s	30s	
Weekly or more	3%	4%	0%	3%
Monthly	3%	4%	0%	3%
Several times	23%	12%	50%	21%
Once a year	39%	32%	33%	36%
Less than once a year	32%	48%	17%	37%
Total	100%	100%	100%	100%
N	31	25	6	62
More than once a year	29%	20%	50%	27%
Met more than one time	52%	48%	43%	45%

one donor sibling. And almost two thirds (64%) of the offspring have met a donor sibling (in contrast with half of the parents). Indeed, the offspring *are* moving offline at even higher rates than are the parents. And unlike simply finding a donor sibling, it is the older offspring who are most likely to have met face-to-face with someone with whom they communicated online.

### *Getting to Know About You: Styles and Rates of Communication*

In 2009, Hertz and Mattes reported that communication took place predominantly online: 74% of the parents exchanged e-mails, 64% exchanged photos, and only 21% talked by phone with another family (or families) (Table 5A).

Among parents, the form of communication has remained predominantly online also but the rates have escalated to 91% exchanging e-mail, 89% exchanging photos, and 44% talking by phone.

Not only do a greater percent of parents now communicate with the other families they have found than was the case in the past, but they do so considerably more frequently and with relatively large numbers of families (Table 5A and B). Hertz and Mattes estimated that families communicated through Internet groups approximately 14.2 times per year and exchanged group e-mails 5.9 times per year. Since then the number of Internet communications has more than tripled and the number of group e-mails has almost doubled. By way of contrast, the number of individual e-mails has remained steady, while talking on the phone has tripled. To be sure, changing technologies alone might account for some of these changes. Now that such large proportions of the population have cell phones, the cost of long distance calls appears to be considerably cheaper. In addition in 2009, Facebook was just expanding into an adult market; by 2014 more than half of online adults not only used a social media site but used two or more of them (Duggan, Ellison, Lampe, Lenhart, & Madden, 2015). All in all the increased communication among parents over a 5-year span, coincides with, and might well be a byproduct of, these new technologies.

Among parents, the frequency of communication clearly is promoted by the belief that there are benefits attached to the exchange of information (Table 5D). Parents highlight the benefit of seeing what other offspring look like and the exchange of information about personalities, medical concerns, and development; they also enjoy watching offspring change over time. Over half of the parents mention that they believe that their family circle is made wider by having donor offspring.<sup>6</sup> As one respondent wrote when asked to expand on the given response about benefits, "I feel like I've found people I've known forever and who deeply care about my child in a way that only my immediate family (grandparents, aunts & uncles) care for her." And yet another said of a donor sibling of her child, "She is literally our third daughter from this donor . . . just with a different mom and living in a different state." Some of those who added "other" responses talked about the importance of knowing someone else who shared their situation (e.g., being a single mother); others talked about the importance of having another person for their children to know who shared *their* situation (e.g., of being donor conceived or the child of a single parent).

The patterns of frequency of communication are different for *offspring* than for parents although the total number of annual communications is about the same (Table 5C) and the same proportions have ever exchanged e-mails, photos, or talked by phone with a member of a donor sibling family (Table

5A). Offspring communicate with fewer people through all media than do parents (Table 5B). But offspring are less bound to “groups” than are parents (Table 5B and C); they send and receive more individual e-mails and conduct more private or separate phone conversations. Among the offspring, then, the communications are more often directed at a particular individual than they are among the parents who focus more on the groups.<sup>7</sup>

Offspring were not asked about the benefits of locating donor siblings with precisely the same question as were parents, but they were asked to indicate the best part of finding donor siblings (Table 5E). The most frequent answer (42%) was that they had a common connection with their donor offspring, sharing either a genetic or a social tie: “One of my sisters looks like she could be my twin—it’s amazing. Every time I meet a new sibling I see truly where I get some traits and how similar the two of us are.” The second most common answer (23%) was that donor siblings provided the offspring with a sibling: “[The best part is] having a sibling that I’ve never had before, feeling a sense of connection.”

Independent communication on the part of offspring begins with children as young as between the ages 6 and 10 years, who are part of a digitally rich environment, and takes off once they are teens. Older children are almost all communicating among themselves without the intervention of their parents. A third of the young children (6-10 years) are e-mailing or texting and this doubles to two thirds by the time the children are teens. A quarter of the younger children (6-10 years) and the teens are making plans to meet and this doubles for the oldest group (>19 years). Finally about 17% to 18% of the younger group and the teens are engaged in activities together but almost a third of the oldest ones are doing that.

### *Going Beyond Contact: Meeting Donor Sibling Families*

As noted (Table 2), half of the *parents* have met families with whom they have communicated and two thirds of the *offspring* have met families with whom they have communicated. Parents are more likely to have met another family (and more likely to get together more than one time) when children are older (in their teens).<sup>8</sup>

Although face-to-face meetings occur, and even recur (68% of parents say that they have met any families more than one time), ongoing face-to-face contact is infrequent. Among those families with whom parents say they get along (and we discuss this further below), only a third (34%) say they get together more often than once a year, 41% say they get together about once a year, and a quarter say that they get together less than once a year (Table 6A). Even the most intimate groups among the networks do not get together all

that frequently. In short, even though the parents *have* moved offline to have face-to-face contact at least once, the Internet (virtual space) remains a significant means of contact because these families are not necessarily located geographically in the same place. However, there is some evidence that this pattern might be changing. The lowest rates of *frequency* of meeting are among those parents with the oldest children and highest rates of *frequency* of meeting are among those families with the youngest children (under the age of 5).<sup>9</sup>

Among *offspring* a smaller percent (45% for offspring and 68% for parents) have said that they have met any families more than one time (Table 6B). Among those with whom offspring say they have met more than one time, only 27% meet more often than once a year, 36% meet about once a year, and 37% meet less than once a year. Age does not appear to be significant here: Those who are in their teens and those who are in their 20s appear to be about equally likely to meet more than once a year (29% vs. 20%); there are so few in the over 30 age-group that we can draw no conclusions about their patterns. The average number of contacts (3.4 per year) is approximately the same for offspring as it is for parents (3.5 per year).

### Getting To Like You (Selectivity)

Among those *parents* who met any donor sibling families more than one time (Table 7A), only 18% say that they are *equally involved with all families*. The remaining parents give reasons why they are more involved with some families than with others (Table 7B). Among those who are *not equally involved with all families*, proximity is the most common reason for getting together more with some than with others, followed by getting along better, and then having children who get along better.

More enlightening than the question of why they get along better with some over others was the somewhat differently worded question of why they continue to meet with the families that they do meet (Table 7C). This was also asked by Hertz and Mattes. In both the past and the present, parents credit the children (e.g., “they have a great time together”) with the reason for continuing to meet followed in both data sets with the notion that they hope that the families will remain connected over the years. In both data sets having a lot in common, observing a special connection among children, and observing a special bond because of biology were reasons given by over half of all respondents. Many also said that they liked doing the same kind of activities and wanted to expand the potential for family. In the 2014 data, over a third of the parents said that proximity alone motivated who they continued to see (and this was reiterated in the open-ended responses). Also in the 2014 data

**Table 7.** Patterns of Meeting.

A: Percent equally involved with all families	Parents	Offspring				
	18%	14%				
B: Reasons for being involved with some rather than others (among those who say meet with some alone)						
Lived closer	41%	41%				
Get along better	24%	30%				
Children same age/ we are same age	18%	7%				
Children get along better/parents get along better	10%	13%				
Children same gender/we are the same gender	7%	9%				
Total	100.0%	100.0%				
C: Reasons for Contact (Percent saying extremely important or important)						
	Hertz and Mattes (2009)	Current survey (2014)				
	Reason for continuing contact with related donor families	Reason for continuing to get together with families met in person				
		Child's age (years)				Total
		0-5	6-10	11-18	19+	
Children have great time together	68%	73%	84%	78%	65%	76%
I hope they will have a meaningful part in our lives	64%	82%	69%	67%	60%	71%
We have a lot in common	54%	56%	65%	60%	53%	59%
Children felt special connection	51%	58%	64%	78%	73%	66%
We have a bond because of biology	51%	63%	53%	59%	57%	58%

(continued)

**Table 7. (continued)**

C: Reasons for Contact (Percent saying extremely important or important)	Hertz and Mattes (2009)	Current survey (2014)				
	Reason for continuing contact with related donor families	Reason for continuing to get together with families met in person				Total
		Child's age (years)				
		0-5	6-10	11-18	19+	
We like doing same kinds of activities	456%	43%	54%	76%	32.3%	46%
Expand size of potential extended family	46%	54%	44%	45%	32%	467%
children asked to get together again	33%	28%	58%	59%	58%	48%
More tolerant than if no biological link	31%	24%	27%	18%	25%	23%
We live near each other	a	50%	34%	38%	28%	37%
N=	114	120	85	103	31	339
D: Offspring only: Characteristics of donor siblings know the best	Have not met donor siblings			Have met donor siblings		
	Age (years)			Age (years)		
	Teens	20s+	All	Teens	20s+	All
Same age	85%	58%	94%	80%	56%	58%
Same gender	70%	42%	50%	43%	44%	43%
Similar interests	45%	58%	52%	43%	44%	42%
Live close	20%	8%	12%	25%	17%	21%
Parents like each other	25%	4%	12%	43%	25%	31%
Known longest	20%	16%	16%	33%	22%	27%
Look alike	55%	65%	58%	63%	44%	50%
N=	20	26	50	40	56	88

<sup>a</sup>Response option not offered in 2009 survey.



set more parents than previously reported that their children felt a special connection or asked to get together again but fewer parents said that they were more tolerant than if there were no biological link.

Most of these reasons given for continuing to meet with some families are not significantly related to the age of the child although some are: parents of the oldest children are less likely than parents of younger children to give as a primary reason that their children get along together; apparently, as children grow older the parents are less likely to privilege the children having fun though they do privilege the special connection among the children. That is, when there are older children, connection rather than fun is the issue. In other changes, the parents of young children hope that the other donor sibling families will be a meaningful part of their lives; by the time the children are older, this is no longer as much of an aspiration. One other difference is worth noting: It is mostly with the youngest children that proximity is an issue determining whether or not one has gotten together again.

As was the case in Hertz and Mattes, when describing the preference for some families over others, some parents spoke about “clicking” with another couple: “We just clicked with 2 of the families better than the other two.” In fact, a tenth of parents acknowledge that there are some families they have met in person with whom they have decided not to remain in contact. In some cases it is clear that similar belief systems and background similarities were at the heart of “clicking” or not “clicking.”<sup>10</sup>

Among those *offspring* who met any donor sibling families more than one time, only 14% (in comparison with 18% for parents) say that they are *equally involved with all individuals or families* and slightly more than half (56%) say that they have never met separately with any subgroup of individuals or families (Table 7A). Among those who are *not equally involved with all families* proximity is the most common reason for getting together more with some than with others (41% which is the same as among parents) followed by getting along better (30% compared to 24% among parents). Among offspring both relationships among their parents (13%) are reasons for getting along. Being the same age or gender are relatively unimportant.

Like parents, offspring were asked why they chose *not* to get together with some families; among the few ( $N = 22$ ) who answered this question the vast majority (83%) said that they did not live close enough to make that possible and some reiterated this on the open-ended responses: “We are meeting up again soon! We just live kind of faraway which makes meeting up often difficult”; “We live on opposite parts of the country and are busy with our own lives so planning another meet up would be very difficult!”<sup>11</sup>

Offspring were also asked to describe the offspring they knew best both if they had only communicated with one (or more) and if they had met one (or

more) (Table 7D). Meeting offspring changes their attitudes: age, gender, and similarity in interests all become less important; having parents who like each other becomes more important as does having known a donor sibling the longest. But all of these are shaped by age. Among those who have not met, the older respondents (teens and older) are less concerned about age, gender, and parental relationships; among those who have met, the older respondents are less concerned about age, parental relationships, who they have known for the longest period of time, and physical appearances being similar.

### *How Close Is Close?*

Hertz and Mattes asked parents to describe their relationship with donor sibling families. As shown in Table 8A, the most common response was that these were like acquaintances. This is even more common for this new set of *parent* respondents, whether examining relationships with the parents of their children's donor siblings and with those donor siblings themselves or their children's relationships with donor siblings and the parents of those donor siblings. Frequent as the communications and meetings are among donor sibling families, for the majority of parents the relationships with other parents or the donor siblings of their children never become closer than friends or acquaintances, although some do.<sup>12</sup>

Another question probed this issue in a different way. At the end of the questionnaire, parents and offspring alike were asked which people they considered part of their nuclear and extended families. Here, we look primarily at the responses for those answers concerning a child's donor siblings and the parents of a child's donor siblings.

As we can see, among the parents (Table 8B) only 20% elevate a child's donor siblings into their *nuclear* family and this is the case only if they have met them; they also do not elevate parents of a child's donor siblings to nuclear family status (the highest is 17% for those who have met them). However, 68% of parents do elevate a child's donor siblings to *extended* family status once they have met them. Parents also included the parents of a child's donor siblings as members of their extended families at relatively high rates, especially once they have actually met them (63%).<sup>13</sup>

As a further indication of "distance" and "difference" from blood/legal family, we asked respondents to indicate who they would invite to a special event like a wedding, graduation, confirmation, or bar or bat mitzvah. Among parents, the vast majority said they would invite a member of their extended family (88%), but only 57% said they would invite their child's donor siblings or the parents of those donor siblings even if they had met them.

**Table 8.** How Close Is Close.

A: Relationships with members of DS families	Hertz and Mattes (2009)	Current survey (2014)			
	With DS families	With parents of your child's DS	Your child's DS	Your children and DS parents	Your children and other DS offspring,
Close family	8%	10%	13%	11%	20%
Distant family	32%	18%	25%	25%	23%
Close friends	18%	21%	11%	13%	16%
Acquaintances	32%	51%	51%	52%	41%
None of the above <sup>a</sup>	10%				
Total	100%	100%	100%	100%	100%
	114	530	508	496	513
B: How they think of DS families					
			Current survey only		
Offspring	Have NOT identified DS	Have identified DS	Have communicated with DS	Have met DS	
View DS as part of nuclear family	8%	22%	23%	42%	
View DSP as part of nuclear family	3%	10%	12%	15%	
N	143	135	122	76	
View DS as part of extended family	20%	22%	69%	71%	
View DSP as part of extended family	13%	34%	39%	44%	
N=	123	128	116	76	
Parents	Have NOT identified DS	Have identified DS	Have communicated with DS	Have met DS	
View DS as part of nuclear family	4%	13%	13%	20%	

(continued)

**Table 8. (continued)**

Parents	Have NOT identified DS	Have identified DS	Have communicated with DS	Have met DS
View DSP as part of nuclear family	2%	11%	11%	17%
N	407	1,046	989	494
View DS as part of extended family	10%	53%	56%	68%
View DSP as part of extended family	8%	48%	50%	63%
N	412	1,049	992	494

  

Current survey only					
C: Who would invite to significant family events	Nuclear family members	Extended family members	DS/DSP who have been located	DS/DSP with whom have communicated	DS/DSP have already met
Offspring	93%	76%	24%	59%	68%
Parents	94%	88%	35%	37%	57%

Note. DS = donor sibling; DSP = donor sibling parent.

\*Response option not given in 2014 survey.

*Offspring* were asked these same questions about who was part of their nuclear family or extended family. Twice as many offspring as parents (42% vs. 20%) who had met a donor sibling said that that person was part of their nuclear family. Only 23% of those who had only communication with a donor sibling but had not yet met that donor sibling gave the same answer as did 22% of those who had identified donor siblings but not yet met them. Among offspring, meeting matters for the identification of donor siblings as part of their nuclear family. The parents of their donor siblings rank considerably lower: 15% of those who had met the parents of their donor siblings said that they considered them part of their nuclear family. Meeting donor siblings transforms them into family members; meeting the parents of their donor siblings does not make them family.

The same pattern—to a considerably higher degree—is present when offspring are asked about extended family. Seventy-one percent “elevate”

donor siblings they have met to membership in their extended family and 44% do the same for the parents of their donor siblings.<sup>14</sup> With respect to the question of who would be invited to a significant event (Table 8C), 76% of offspring say they would invite a member of their extended family and nearly as many (68%) say that they would invite donor siblings they had met.

In the comparison between parents and offspring, several differences emerge. Offspring are considerably less likely than are parents to say that donor siblings are part of their extended family when the only connection is having identified those offspring. Parents embrace the donor siblings of their offspring before they have communicated; offspring are more cautious and want connections that have moved into real rather than imaginary or virtual space. On the other hand offspring are more likely than parents to claim donor siblings as part of their nuclear family once they have met. But offspring are less likely, curiously, to give the parents of their donor siblings a place in their extended family whether or not they have met those people. Parents bond with parents once they have met; offspring are less likely to bond with the parents of their donor siblings even if they have met them.

## Summary and Discussion

We summarize first the two sets of comparisons: the differences and similarities over time since the Hertz and Mattes study and the differences and similarities between parents and offspring. We then briefly discuss the findings taken as a whole.

### *Changes Over 5 Years (Comparison With Hertz and Mattes)*

In comparison with Hertz and Mattes, more *parents* in the recent study (in part because of the different and less-bounded population from which our more recent data were drawn) have taken steps to locate donor siblings, but those who do are initiating that search for essentially the same reasons as 5 years earlier. In spite of the growth of social media and the expansion of public knowledge about the mere *existence* of donor siblings, the success rate (for those with young children) has remained about the same, suggesting that there are still unknown numbers of donor-conceived family members who are not participating in the search for others conceived by the same donor. Most searches still rely on registries. And those who search find on average the same number of families.

Both the rate and form of communication with shared-donor families have changed: The rate of communication has escalated enormously and while much communication remains group oriented (e.g., group e-mails) there is

also more talking on the phone with another individual. Moreover, the frequency with which parents meet face-to-face following identification of donor-conceived relatives has also risen enormously: like communication, meeting appears now to be part of the package of searching for donor siblings with half of all families meeting (and 58% after children are 10 years old). Interestingly, most of those who get together (especially once children are 10 years old) meet more than one time. Parents are activating these ties; their curiosity is no longer satisfied by the simple exchange of photographs. Parents now move these relationships offline, and there seems to be considerably less hesitation to meet offline once donor siblings are found.

These relationships clearly follow a trajectory: as relationships with a child's donor siblings and the parents of a child's donor siblings moves from identification through communication to actual meeting, the likelihood that these individuals will be named part of one's extended family increases quite dramatically. But today the "trajectory" of the formation of relationships (or the movement from latent to active ties) *with the entire group of donor-conceived "relatives"* breaks or is disrupted at a different moment than was the case 5 years ago. Previously, it was disrupted at the point of meeting or not. That is, individuals met some, but not all, members of their network. Now not only do the members of these donor sibling networks meet (and thus have the opportunity, whether they are conscious of it or not, to see who they like) but most meet more than one time (as in planned reunions). But groups fragment. Less than a fifth say that they are equally involved with all families and although proximity and size of group are clearly factors limiting involvement with some rather than others, so too are shared likeness (in living arrangements and sexual orientation) and simple compatibility. As is the case for relationships with the members of one's blood/legal family, intimacy and ongoing contact emerge unequally within the group. Some people (but not everyone) are invited to a wedding or graduation; some people (but not everyone) keep in touch through phone calls and personal e-mails. But everyone might keep track of the entire kinship network on Facebook, noting important events as they occur, and maintaining the latent ties that can be called on if—and when—needed.

That is, as this fragmentation happens, the latent ties (the group as an insurance policy that can be followed and drawn on) still exist but they exist at a different point in the trajectory relative to the group as a whole. Previously, latent ties were created in the network of individuals with whom one was in communication. The 2009 respondents had communicated with many others but had not met them. Now latent ties are equally likely to be among those who have met and even among those who have met more than one time (the reunion group) while active (closer familial) ties are developed with a portion of the whole.

Five years ago, parent respondents were asked to describe, broadly, their relationship with “donor families.” In the more recent survey this question was broken down into various component parts. Fewer respondents in the more recent study identified *their* relationships with other parents as being like family—either close or distant—than in the earlier one though an equal number identified their relationship with their children’s donor siblings as being like family as had been true in general for the Hertz and Mattes respondents. Even when parents *do* acknowledge that these people (children’s donor siblings, the parents of a child’s donor siblings) are family (which is more likely once they have met them), they locate them as *extended* rather than nuclear family. Genetically, the donor siblings of their children are half siblings, but they are no more likely to be named as nuclear family than are the *parents* of those children; naming them both as “extended” family rather than nuclear family locates them both in a place where there are no obligations and in a place where selectivity (liking some better than others) can occur without blame or guilt. And even locating them as extended family might in and of itself be relatively meaningless in practice—that is, it is a way of signifying the genetic connection but has little other meaning. These are *not* necessarily people who will be invited to significant family events.

Locating donor-conceived relatives in the arena of “extended family” totally preserves the “traditional” North American family structure of a nuclear, bounded family of parents and children. For the parents, blood alone (the genetic tie) does not become sufficient to disrupt this definition. Blood does create latent ties, and it does create some vague notions of extended family. However, it does not create intimate family ties among people who necessarily believe they have responsibilities to, or can make claims on, others. Indeed, it seems that parents use the language of extended family because they have no other language with which to describe people with whom their children have a “blood” relationship. Blood is not dismissed but these new “blood” relationships might remain at the perimeter of one’s “real” or legal extended family.

### *Differences Between Parents and Offspring*

Hertz and Mattes did not look at offspring. Neither did any of the other studies discussed in the literature review *directly* compare offspring with parents. This direct comparison is a unique feature of this study. The comparison reveals some different patterns between parents and offspring. Taken as a group, offspring are less likely to locate or identify donor siblings than are their parents (because the offspring group includes some who are considerably older than the children of the parents who responded to our survey, and

there is a strong negative correlation between the age of offspring and actually locating donor siblings). But once they have found them, they are equally likely to communicate with them and even more likely to meet them. As Hertz and Mattes predicted, they are even more comfortable than their parents moving these relationships offline. They also conduct their search for similar reasons although they are somewhat more interested in relationships and less interested in medical issues.

Offspring communicate at the same rate as do parents but they do so in different ways: they are less bound to the Internet group and more reliant on individual e-mails, text messages, and phone calls. Communication is thus *more individual*. Indeed, relatively few offspring (14%) say that they are equally involved with all families within their donor sibling network. And selectivity among offspring is based in *both* proximity *and* liking (as well, secondarily, in being the same age and gender). Given how much selectivity (in communication, in liking and proximity) there is among offspring, it might not be surprising to find that the *offspring* who have met a donor sibling are more likely to name their donor siblings as members of their nuclear family than their parents are (giving them terms like brother and sister). This location, however, does *not* extend to the parents of their donor siblings: indeed among those who have met the parents of donor siblings, offspring are *less likely* than are their parents to view them as members of their extended family. The offspring claim to challenge the traditional family by creating “siblings”—a nuclear family relationship—among those with whom they share neither parents nor living arrangements. Unlike the siblings given to them at birth, these can be selected from among a pool of available donor siblings. But again, some of this claim may be more myth than reality. Offspring are somewhat more likely than are parents to say that these are people who would be invited to a significant life event, and they answer this question affirmatively at almost the same rate they do for extended relatives. But they do not elevate them to the level of members of their nuclear family: They may be called siblings, but they are not, in general treated as if they are siblings in terms of obligations and rights.

The findings of this study urge caution about the use of the concept of family when describing relationships among networks of people drawn together through a shared donor. To be sure the respondents—parents and offspring alike—talk about this new set of relationships in the language of extended family and sometimes even in the language of nuclear family. And, to be sure, it is especially the offspring, who are genetically as close to donor siblings from another family as they would be to a legal half-sibling born from one same and one different genetic parent, who make the leap from extended family language to nuclear family language (from cousins to sisters



and brothers). All of this family language reminds us that blood (as represented by a genetic connection) matters. But none of these studies have scratched much below the surface to explain just *how or for whom* (by age, gender, sexual orientation, family composition) blood matters. As these data show, for some, blood matters because it is a latent tie, an insurance policy, a place to go if and when one needs more information; this is especially true for parents who, having met once or twice, stay online but do not otherwise connect with donor sibling families (or do not meet at all). The data show as well that for some, blood matters because it provides a mechanism for meeting others in a shared life situation (or with similar values), and this is true of *both* parents and children who see in these relationships someone who understands who they are and the issues they confront. Finally, the data show that for some, blood matters because it is the initial basis for a deep connection that feels like and may be enacted as extended and even nuclear family. Now that we know that individuals—parents and offspring alike—have moved offline to participate in these new sets of relationships, we need research that explores more precisely the conditions under which shared-donor “relatives” become extended or nuclear family and the meanings those two versions of “family” have for their participants.

### **Acknowledgments**

The authors thank Jane Mattes for her comments and Jacqueline McGrath and Gabby Hartman for assistance in coding the data.

### **Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### **Funding**

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was supported by NSF SES-1355740 (Rosanna Hertz) and by NSF SES-1355726 (Margaret K. Nelson).

### **Notes**

1. The Centers for Disease Control and Prevention estimates that 12% of women in 2010 received infertility services at some point in their lives. Mandated in 1992, The Fertility Clinic Success Rate and Certification Act requires all clinics performing ART to produce data for all procedures to the Centers for Disease Control and Prevention. This yearly report is on their website. However, this report is based on nondonor procedures (e.g., IVF using a couple's own gametes) and donor egg or embryo use; both of these sets of procedures require medical

intervention. The number of cycles using donor eggs or embryos and live births between 2003 and 2012 increased dramatically (and varies by age and use of donor eggs or embryos). However, no data are provided by clinics about sperm donor use. Even if it were provided it would only tap a percentage of sperm donor use. It is common knowledge that many people inseminate without going to a fertility clinic whether at home or in a doctor's office. Single mothers and lesbian couples are socially infertile not medically infertile. They are not dependent on fertility clinics for insemination. Sperm banks are not required to release records of even how many vials of sperm are sold and few banks know whether a live birth resulted from sperm purchase.

2. We might note as well that parallel quests to find biological kin have emerged in the world of adoption.
3. Much of the research to date has relied on large data sets recruited through registries (TSBC for Scheib and Ruby; DSR for others) and organizations (SMC for Hertz and Mattes). This research has noted that the search for paternal kin—donors and donor siblings—is shaped by family type. (The data are not consistent for offspring.) The emphasis in *this* study is on the experience of finding, contacting, and meeting donor kin; we do not explore the issue of how the search itself varies by family type.
4. The difference is not simply the result of a different population of parents. Among the parents, in the current survey, those who are currently single search at higher rates (77% for single, never married; 79% for other single) than do those who are partnered (73% if partner same sex; 68% if partner is other sex). However, the fact that these respondents largely came to the survey through the DSR might well account for the higher rates of searching.
5. In both 2009 and 2014 relatively few parents were interested in circumventing the sperm banks and getting more vials of sperm from others through connections on the DSR, although in both years there were some parents searching for families who shared their donor for this reason.
6. We discuss below what form this kinship takes.
7. Interestingly, more offspring than parents (52% vs. 32%) agree with the statement that they would like there to be more contact through social media than there is now, although equal proportions agree with statements about there being just the right amount of contact.
8. Given how recently these meetings started, it is quite possible that the majority of respondents will only meet one time.
9. Among those with young children who have not yet met a donor sibling family, even though they are in communication with them, the parents are divided between those who want their children to meet their donor siblings, even if the children do not understand they are genetically related, because meeting provides continuous memories important to them for their children and those who prefer to wait and meet when their children better grasp that they are donor siblings. For the latter group, online contact is sufficient.
10. As we pursued this question of selectivity (fragmentation) among parents, other issues emerge. We asked the respondents to describe the family they *meet most*

often in terms of sexual orientation, marital status, similarity of age, and proximity. These data confirm the significance of these issues of similarity. When parents were asked whether the couple they met most often was a heterosexual couple, 17% of those who responded said yes, the other family was a heterosexual couple. Among heterosexual parents who are in heterosexual relationships 23% of the parents they know best are heterosexual; put differently, heterosexual couples are “overrepresented” by 38% among heterosexual couples. Among the couples known best by parents, slightly over half are reported to be a lesbian couple. Among lesbian parents who are in lesbian relationships, more than two thirds of the families they know best are reported to be lesbian couples, an overrepresentation of 34%. Finally, 58% of all families are headed by a single parent, but the proportion of single parent families chosen by single heterosexual women is 71% (or an overrepresentation of 22%) while the proportion of single parent families chosen by a single lesbian women is about the same (57%) as the proportion of single parent families in the sample. Interestingly, lesbian women in same sex relationships (lesbian couples) are *least* likely to choose a single woman family as the one they are closest to while single heterosexual women are *most* likely to do that.

11. As was the case for parents, similarity seemed to be an important issue in who among the donor siblings someone knew best: 96% said they were the same age, 63% said that they were the same gender and a similar percent said they were the same ethnicity/race, and over half (55%) saying that they had similar interests.
12. These responses do not differ significantly for the respondents as divided by age of oldest child with donor siblings. Parents are as likely (or unlikely) to form close relationships with other parents when their children are very young as they are when their children are considerably older.
13. Naturally, a child’s donor siblings and parents of a child’s donor siblings retreat in significance when compared with one’s own children or partners; but they are included as extended family at higher levels than the donor and altogether (as either members of nuclear *or* extended families) they are included at rates as high as former partners or stepchildren.
14. Among offspring, as among parents, donor siblings retreat in importance when measured next to parents, siblings, children, and partners as members of one’s nuclear family. However, they rank more highly than any other category (except one’s parents) as members of one’s extended family.

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