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Choosing Between Anonymous and Identity-Release Sperm Donors: Recipient and Donor Characteristics

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Abstract

Background: Specific information is available for donor insemination (DI) recipients who are choosing sperm donors. We review studies that discuss the importance of donor information to DI recipients. We then report the results of two new studies that identify criteria that recipients used to choose donors, including donors who agree to release their identity, based both on the preferences recipients expressed in an interview and the donor attributes that predicted their choices.

Methods: Preferences were obtained from a representative sample of women who used The Sperm Bank of California between 1995 and 1997 (group 1). We also identified choice criteria used by DI recipients between 1993 and 1997 (group 2) through analyses of the attributes of the chosen donors. Groups were comparable in age, sexual orientation, and marital status. In telephone interviews, respondents in group 1 ($n = 97$) answered open-ended questions about the criteria they used to choose donors. For group 2, we conducted a multiple regression analysis on recipients' choices ($n = 198$) and donor attributes listed in donor catalogs.

Results: Group 1 respondents most frequently reported using physical attributes (87%) to select donors, followed by character descriptors (71%), health items (59%), and donors' physical and psychological match to the recipient's partner (60%). They also reported wanting identity-releaseSM donors (79%) and this criterion was related to using positive impressions of the donor. Consistent with group 1's claims, donor attributes that predicted group 2's choices included being tall and identity-release.

Conclusions: Being an identity-release donor was especially popular in recipients' choices and is consistent with recent findings suggesting a desire for more donor information and with giving the child the option of identifying and possibly meeting their donor. Although 74% of our couples were lesbians, respondents still reported a strong preference that the donor be matched to their partner, suggesting that matching serves functions beyond concealing non-genetic relatedness between father and child. Matching (and subsequent resemblance) may also simplify everyday interactions and perhaps enhance feelings of affinity between the matched parent and child.

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Many donor insemination programs in the United States and Canada offer their recipients information about potential sperm donors. Typically this includes health-related information and blood type, in addition to the fact that the donor has been medically screened for diseases. Information about the donor's physical appearance is also available, including hair and eye color, ethnicity, height, and weight. In addition, some programs provide information about the donor's character by listing his interests, pastimes, and education, and (less often), a statement about why he decided to be a donor and his message to recipients or future offspring. All information is non-identifying, and in almost all donor insemination (DI) programs the donors are anonymous, thereby guaranteeing that recipient families and donors will never contact each other. In only two DI programs in North America—Pacific Reproductive Services and The Sperm Bank of California—can a donor choose to be “identity-release,” that is, he agrees to have his identity released to offspring if the offspring request it provided they are at least 18 years old. The identity-release option appears to be in high demand in these programs, perhaps because it can give a parent greater leeway to tell the child of his or her donor-assisted conception, with the adult offspring then being able to get more information about the donor if s/he wants or needs it.¹ Indeed in a study by Cook et al.,² DI recipients reported having difficulty telling offspring about their conception when little information was available about the donor (see also Mahlstedt and Greenfeld).³ Such a lack of donor information also contributes to initial difficulties in choosing to use DI: Lasker⁴ notes that among prospective recipients' greatest concerns are the identity, health, and other characteristics of the sperm donor. Thus, the increasing amount of donor information available in recent years may assist people in choosing to use DI initially, in feeling comfortable with and being in control of their decisions during the DI process,⁵ and later with their ability to share information with their children if they so choose.

Even with the increasing availability of information, however, little is known about how recipients choose sperm donors or what information, if any, is important to them. No published studies have addressed this issue directly, but one researcher used hypothetical scenarios as a way to identify important variables.⁶ Others have included brief questions about the importance of donor information—asking, for example, about recipients' attitudes toward DI,⁷⁻⁹ their openness in using DI,^{2,8,10,11} and general outcomes of the DI process.^{1,12-14} We review these studies in the present paper and then report the results of two new studies in which we determine how donors were chosen in a DI program, using both reports from

recipients and analyses of their actual choices. Results from our studies may be of use to DI practitioners in identifying information that is important to their recipients, and thus help them meet recipients' needs.

Our results may also be of use for two additional reasons. First, the types of recipients in DI programs are changing, and our study includes choices made by two newly emerging groups: single women and lesbian couples. Schrover et al¹⁵ report that, given the availability of intracytoplasmic sperm injection (ICSI), many heterosexual couples who would have used DI are now choosing to use ICSI (see also Lasker).⁴ As more of these couples choose ICSI, an increasing proportion of DI recipients will be lesbians and single women, whose problem is a lack of sperm, not male infertility. Because our sample includes primarily single women and lesbian couples, the results of the current study may be of special interest to practitioners who are experiencing this new phase in the use of DI and seeing more of these clients. Second, we have examined how recipients choose donors when both traditional (i.e., completely anonymous) and identity-release (i.e., identity can be released to offspring at age 18) donors are available and whether recipients' choices are related to their marital status and sexual orientation. To our knowledge, these are the first studies that address both how sperm donors are chosen and how recipients respond to the donor identity-release option.

Review of the Literature

A handful of studies and the growing availability of donor information in DI programs indicate that recipients want such information when making choices among donors, and that they desire not only health-related data, but also physically and psychologically descriptive facts (unless otherwise noted, this information is non-identifying). For example, in a sample of 35 heterosexual couples, Klock and Maier⁷ found that while the donor's medical information was the most important issue for couples, they were also concerned about the future child's physical and psychological resemblance to the recipient's marital partner. Similarly, in a later study comparing single and married DI recipients, Klock et al¹⁶ found that both groups wanted information about the donor's appearance, medical history, and personality. When asked about their concerns for their future children, both groups also reported similar responses: they were most concerned about the medical information, followed by the future child's physical and personality resemblance to the recipient's marital partner or herself. In New Zealand, Purdie et al⁸ questioned 53 heterosexual couples about what they wanted to know about their donors. Medical history was important to some, but as many or more couples also reported desiring information that would "describe [the donor] as a person", such as his interests, physical attributes, personality, and family background. In a study comparing couples using DI in the early 1990s to those using it in the 1970s, Berkel et al¹⁷ found an increase in the number of respondents who wanted information about the donor. Whereas about 10% of earlier respondents wanted donor information

in general, this percentage increased over the 20-year period, with about 30% of recent respondents wanting information about the donor's appearance and character. In summary, the desire for more descriptive donor information may be increasing and, probably because of this desire, an increasing number of DI programs now provide it.

Donor information may assist recipients in choosing a donor and help meet such needs as matching the donor's physical and character traits to those of the recipient and/or her partner. Donor information may also assist recipients who plan to tell offspring of their donor-assisted conception, with such recipients most often being lesbian couples and single women, and less often being heterosexual couples. (For a discussion of disclosure vs. non-disclosure, see Daniels and Taylor,¹⁸ Klock et al,¹¹ and the findings of Leiblum and Aviv¹⁰). A link between disclosure to offspring and the desire for donor information became apparent in studies by Brewaeyts and colleagues, who conducted some of the first studies involving lesbian DI recipients. These researchers found that 60% of lesbian parents wanted at least non-identifying donor information, and the majority of them also wanted the donor's identity to be registered.⁹ For this majority, their decision had changed as their children got older and it became apparent that the children wanted, or might want, to know who the donor was. Similarly, in a longitudinal study of lesbian mothers who conceived through DI, all planned to tell their children about their donor-assisted conception, and almost 60% wanted the donor's identity registered.¹² (Note, however, that the 40% who did not want to know the donor's identity felt that having this information would not help with their children's questions.) In a study of lesbian couples and single women using DI, Leiblum et al¹⁹ found that nearly all of the women wanted more detailed information about the donor, 40 wanted to meet the donor or have their child meet him (57%), and all planned to tell their children about their donor-assisted conception. This contrasts with Leiblum and Aviv's¹⁰ finding that the majority of heterosexual couples in their sample of DI recipients did not plan to tell offspring and that, for them, only basic donor information was deemed important (e.g., ethnicity, height, education, and health information). In a separate study, Brewaeyts et al²⁰ found that, among the small proportion of heterosexual couples who did plan to tell their children, all of them wanted more information about the donor, whereas only 38% of those not planning to tell wanted to know more (see also Eva et al;²¹ Wendland et al²²). Although the link is not perfect, these studies suggest that the desire for more donor information is driven, in part, by DI parents' plans to tell offspring about their donor-assisted conception.

In the current study, we examined recipients' choices of donors at a DI program (The Sperm Bank of California) that accepts single women and lesbian couples in addition to heterosexual couples. Choices of donors were measured in two ways: through recipients' stated criteria in telephone interviews, and through analyses of actual choices, which identified some of the donor attributes that affected these choices.

This sperm bank offers the usual kinds of information from which to choose a donor, such as physical descriptors, but also provides less commonly offered information, such as narratives that describe what the donor is like in terms of interests, education, self-described personality, reasons for becoming a donor, and the message he would like to pass on to recipients or offspring. Moreover, donors at this sperm bank are unique in that they can choose to be anonymous, as is usually the case, or identity-release. The sperm bank is also unique in that the majority of recipients are lesbian couples, with only about 35% being single women and heterosexual couples. In this study, we determined how donors were chosen using both interviews with recipients and analyses of their actual choices of donors, and asked why they chose identity-release donors (when they did) and why they matched the donor to their partner (when they did). Finally, we also determined whether or not recipients' choice criteria were related to their sexual orientation and marital status.

What Criteria Do Recipients Use to Select Their Donors?

Group 1: DI Recipients Who Participated in National Telephone Interviews

A representative sample of DI recipients from across the United States and Canada who used The Sperm Bank of California (TSBC) at least once between 1995 and 1997 and who were fluent in English were invited to participate in an anonymous telephone interview about their experiences with DI. The sample included every third person (or the next person who met the criteria) from a database of recipients, up to the point where approximately 100 women had been interviewed. The final sample size was 97. Invitation letters were sent and a few weeks later the interviewer (*JES*) called to schedule an interview if the recipient was interested. The response rate was 80.2%—above average for this kind of research (for similar samples see^{10,11,13,19,22}). Nine recipients were called but never reached; of the 15 recipients who explicitly declined to participate, nine professed no time or interest, three reported having had negative experiences, and one said she was uncomfortable participating (two gave no reason). The study received institutional review board approval.

Respondents were asked, in open-ended questions, what criteria they used to select a sperm donor, why they chose identity-release or anonymous donors, and why they matched the donor to someone, if they had. Demographic information was also collected, as well as answers to questions about the recipients' experiences with DI and their personal relationships.²³ Responses were coded by research assistants with inter-rater agreement between 87.5 and 100% for all questions. Descriptive statistics were used to summarize responses, and chi-squared and likelihood analyses (with two-tailed tests of significance) were used to compare responses across sexual orientation and marital status categories.

Respondents

Respondents' ages during DI ranged from 22 to 48, with an average of 37 years (Table 1). The majority of respondents (82.5%) were in a marital or couple relationship, with almost three-quarters of these having a same-sex partner. Single respondents made up 17.5% of the sample, and of these, over 80% were heterosexual. (For simplicity, when coupled respondents identified themselves as bisexual, they were grouped according to their partner's gender). The women in this sample were highly educated; 91% had college degrees or post-college education, and 64% had household incomes greater than \$50,000.

Current Status with DI

Approximately equal numbers of respondents were using DI (25.8%) or had had a child or were pregnant through DI (23.7%) at TSBC (Table 1); 50.5% of respondents had left TSBC, and the majority of them had continued DI elsewhere, started using other reproductive techniques elsewhere, or were pursuing adoption and other forms of parenting. Of all respondents continuing to try to conceive, a third were taking a break for reasons ranging from dealing with relationship problems to job-related commitments, or getting married. Thus, just over half the respondents had stopped using TSBC but were still willing to participate in the study.

Although very little information was available about the 15 respondents who declined to participate, four had stopped all attempts to conceive, two were currently trying to conceive, and two had had a child through assisted reproduction. Therefore, among non-respondents there was probably a larger proportion who had stopped conception attempts than among respondents. It is not clear, however, how this might have been affected by reasons for selecting particular donors.

Recipients' Reported Criteria for Choosing a Donor

Respondents most often reported using physical attributes (86.6%) as criteria for selecting a donor. Many respondents (71.1%) also used character traits as well as health-related attributes (58.8%) and height (33.0%) as criteria for choosing a donor (Table 2). Finally, 60.0% of respondents in a relationship also reported matching the donor to their partner, not only with respect to physical attributes, but also on interests and personality.

We tested whether a respondent's criteria for a donor were related to her sexual orientation or relationship status. We used chi-squared analyses and, where the sample sizes were small, likelihood ratios to test this. We found no support for any relationship between criteria used to choose a donor and either sexual orientation or relationship status (all *p* values > .15).

These choice criteria are consistent with ones documented in previous studies^{8,10,16,19} that included not only single women and lesbian couples, but also heterosexual couples. In these studies, recipients reported wanting information not only about the donor's physical characteristics and health, but also about

Table 1. Characteristics of the Recipient Samples

		Group 1 (<i>n</i> = 97) Telephone Interview Respondents	Group 2 (<i>n</i> = 55) DI Program Recipients
Age during DI (mean \pm SD)		36.85 \pm 4.95	38.25 \pm 5.09
Relationship status during DI (n (%))			
Lesbian:	Single	2 (2.1)	1 (1.8)
	Couple	56 (57.7)	35 (63.6)
Heterosexual:	Single	14 (14.4)	8 (14.6)
	Couple	20 (20.6)	9 (16.4)
Bisexual:	Single	1 (1.0)	2 (3.6)
	Couple	4 (4.1)	0 (0)
Education (n (%))	High school degree	9 (9.3)	
	College degree	39 (40.2)	
	Post graduate degree	49 (50.5)	
Current household income (n (%))	Single women		
	< \$49,999	13 (50.0)	
	> \$50,000	13 (50.0)	
	Couples		
	< \$49,999	22 (31.0)	
	> \$50,000	49 (69.0)	
DI status (n (%))			
	Current at TSBC	25 (25.8)	
	Left TSBC and current elsewhere	14 (14.4)	
	Pregnant or had a child through DI at TSBC	23 (23.7)	
	Left TSBC and conceived elsewhere	13 (13.4)	
	Stopped all conception attempts	22 (22.7)	

his characteristics as a person. In the current study, our respondents also reported using such criteria to choose donors. When differences emerged in previous studies between concerns and preferences reported by heterosexual couples (who reported fewer concerns)¹⁰ and those of single women and lesbian couples (who reported more),¹⁹ they were often due to differences in plans to tell offspring of their donor-assisted conception, not to sexual orientation or relationship status. Klock and colleagues^{16,24} have argued that single women are no different from married women in the information they desire about a donor. Consistent with Klock and colleagues, we found no relationship between criteria used to choose a donor and either sexual orientation or relationship status, including whether the donor was matched to a woman's partner. We could not test

whether donor criteria were related to plans to tell offspring, because all but one of the respondents with children (*n* = 31) in our sample planned to tell. However, almost all recipients at this particular sperm bank request as much information as is available about the donors, both for purposes of selecting a donor and to convey later to offspring, consistent with the idea that the desire for more information is related to plans to tell offspring of their conception but not to sexual orientation or relationship status.

Respondents mentioned an additional criterion, not reported in previous studies, that was based on impressions formed when a recipient reviews information about the donors. TSBC provides an unusually large amount of information, aside from basic health and physical characteristics. Narratives describe

Table 2. Criteria Recipients Report Using to Select Sperm Donors

Donor Attribute	Percentage of Sample Nominating Attribute(s) as One of Their Criteria
Physical attributes ¹	86.6
Character descriptives ²	71.1
Health	58.8
Height	33.0
Matching the donor to their partner ³ (couples only)	60.0
Gave a positive impression ⁴	26.8
Identity-release	79.4

¹Does not include height.

²Includes personality attributes, interests, hobbies, intelligence, education, and being mature, older, and open-minded.

³Includes matching physically to the partner or partner's family, or to the partner's interests or personality.

⁴Recipients' subjective impressions based on a written description, including liking the person or describing the donor as a good, well-rounded person, or a person the child would like to know.

what the donor is like in terms of interests, skills, education, profession, and self-descriptions of personality, why he wanted to be a donor, why he chose to be identity-release or not, and what message he would like to pass on to recipients. TSBC health workers are also willing to provide informal impressions of the donors to help recipients make their choices. Thus, recipients can form positive or negative impressions about the donors. In the current study, responses such as that the donor gave a positive impression, the recipient liked this person, she or her child would like to know this person, or the donor sounded like a good, well-rounded person were coded as "positive impression." More than a quarter of the respondents (26.8%) reported using such positive impressions as one of their criteria for choosing a donor (Table 2). Such a criterion would be especially useful in circumstances in which adult offspring might meet the donor, that is circumstances in which recipients had chosen identity-release. This is discussed below. As with other criteria, using a positive impression was not related to a respondent's sexual orientation ($p > .50$), but it was related to her relationship status ($\chi^2 (1, n = 97) = 4.31, p = .04$). Respondents with partners tended to use a positive impression less often than single respondents. Why this difference emerged is not clear. It is possible that single respondents were simply willing to mention this criterion more often, whereas women with partners' feelings to consider were not, but we cannot be sure based on the information we had available.

Identity-Release vs. Anonymous Donors

The final criterion reported by recipients was based on choosing between identity-release and anonymous donors, a choice available only at this and one other DI program in the United States. Identity-release donors are sperm donors who agree to have their identity released to resultant offspring, if the offspring request the information and they are at least 18 years old. Thus, in contrast to the more common kind of anonymous donors, these donors are anonymous only until the resultant children reach adulthood. In the current study, the majority of respondents (79.4%) reported having identity-release as one of their criteria when choosing a donor, second only to information about physical attributes (Table 2). As with other criteria used to select a donor, choosing identity-release was not related to a respondent's sexual orientation or relationship status ($p > .65$). This means that equivalent proportions of single women, heterosexual couples, and lesbian couples wanted identity-release donors, which indicates that wanting identifying information about the donor is not limited to lesbians and single women.

Why Choose Identity Release Donors?

In an open-ended question, a sub-sample of respondents ($n = 69$) were asked why they preferred identity-release or anonymous donors (whichever they chose). For those who reported identity-release as a criterion ($n = 53$), responses could be grouped into two categories. The first was defined by the idea that identity-release gave the child an option. This

included such responses as giving the child the option to find out who the donor was (rather than not having that possibility) and possibly meeting him, as well as more general responses, such as that it would be easier for the child in terms of identity issues, being conceived through DI, and (for some) having two mothers. The second category concerned giving offspring access to medical information or help, if it was ever needed. "Giving the child an option" was the most common (in fact, almost universal, 98%) response to the question "why identity-release?", whereas "access to medical information" was mentioned by only 7.5% of the respondents. (More than one response could be given). We tested whether these two categories of responses were related to a respondent's sexual orientation or relationship status, and they were not ($p > .35$). Thus, overall, most respondents felt that choosing an identity-release donor gave resultant offspring options that might make their lives somehow easier, given their circumstance of being conceived through DI.

Why Choose Anonymous Donors?

Respondents who preferred anonymous donors ($n = 16$) were asked why. Their answers also could be grouped into two categories. The first included priorities more important than identity-release in choosing a donor. These included matching the donor to the woman's partner, physical, or religious criteria, or even just the availability of samples at the times when they were needed. The second category concerned minimizing the role that the donor played in the family's life and minimizing contact between the donor and child. Responses included not wanting to consider the donor as a person, wanting no contact between the child and the donor, and not wanting the donor to assume a parental or familial role. These were understandable responses in light of the possible threat the donor potentially represented to the second parent's role in the family, both legally and emotionally. Half of the respondents gave "other priorities" as a reason for choosing anonymous, rather than identity-release, donors; "no contact" was given by 43.8%. These responses did not vary with a respondent's sexual orientation or relationship status, even though respondents with partners might have been expected to give these answers more often (e.g., "matched to partner" or "want no contact with donor"). It is important to note, however, that the sample size was small ($n = 16$), thus reducing the statistical power to detect such differences. It is possible that choosing between anonymous and identity-release donors is related to other selection criteria. We discuss this possibility in the following section.

Does Choosing an Identity-Release vs. Anonymous Donor Affect Other Choice Criteria?

We tested whether having identity-release as a criterion, and hence not choosing anonymous donors, affected other criteria. Matching the donor to one's partner was a criterion reported by 60% of coupled respondents and a priority often mentioned

by those who opted for the greater number of anonymous donors available. (Approximately 60% of donors at this sperm bank are anonymous and approximately 40% are identity-release). If no identity-release donors matched a respondent's partner, she would have to choose between these two criteria, and thus choosing identity-release would affect her ability to match to her partner. Indeed, identity-release was related to whether respondents in a relationship reported the criterion of matching the donor to their partner ($\chi^2 (1, n = 80) = 4.90, p = .027$). Fewer recipients who listed identity-release as a criterion matched the donor to their partner compared to those who did not list identity-release as a criterion. Probably there are additional reasons why these respondents did not match as often as those with anonymous donors. For example, matching often helps conceal the fact that the partner is not genetically related to the child, but this may be less important when a donor is identity-release and the recipient plans to tell her child of her or his means of conception. This is discussed further in the "why match" section below.

Because one's child might meet the donor, it is possible that respondents with the identity-release criterion might pay more attention to what a donor is like and hence report using character traits more often than respondents who did not have identity-release as one of their choice criteria. We did not, however, find such a relationship: similar proportions of respondents listed character traits as one of their criteria, regardless of the donor's identity-release status. A better test of this possibility was whether recipients attended to positive attributes of the donor, rather than just more neutral characteristics such as his interests, education, and personality traits. The neutral character traits could be important for telling the child about his or her conception, regardless of whether the child might ever meet the donor. Alternatively, if the donor gave a positive impression, he might also be a better person for the adult offspring to meet, or even be more willing to meet them. As expected, choosing an identity-release donor was related to whether respondents reported using positive impressions as one of their criteria ($\chi^2 (1, n = 97) = 4.22, p = .04$). Those who chose identity-release tended to use positive impressions more often to choose their donors than those who did not have identity-release as one of their choice criteria. No other relationships were found between choosing identity-release and respondents' criteria for a donor ($p > .15$).

Overall, the relationships among choice criteria and identity-release status suggest that being able to obtain the donor's identity and perhaps one day meet him influences the importance of impressions of the donor, and that trade-offs may be necessary when seeking identity-release donors. Because no evidence was found for other relationships between choice criteria and choosing an identity-release donor, the desire for more information about the donor is not necessarily related to whether a child might meet the donor, but instead simply to a recipient's plans to tell offspring of their conception, or even perhaps to how comfortable a woman feels about using DI in the first place.

Why Do Recipients Match the Donor to Their Partner?

In the current sample, similar proportions of lesbian (61.0%) and heterosexual (57.1%) respondents matched the donor to their partner, the non-genetic parent. Matching is used to increase the resemblance between the child and his or her non-genetic parent, and thus helps to decrease any perceptions of non-relatedness.²⁵ This is especially useful when parents decide not to disclose their use of DI. Non-disclosure might have been less important to the lesbian couples in our study, however, and more generally to the 98% of respondents who planned to tell their child of her or his means of conception, suggesting that matching may serve other functions, for both lesbian and heterosexual couples. For example, matching may be used for the practical purpose of easing day-to-day interactions with acquaintances and strangers among whom the father or non-genetic mother would not want to be questioned about his or her parental relationship to the child. These kinds of interactions, as well as physical or psychological similarity to the non-genetic parent may also reinforce feelings of affinity between the parent and child, and contribute to the parent accepting the child as his or her own. Such feelings may be increased even further through the parent's involvement right from the beginning, during the DI process. Support for these ideas comes from responses ($n = 36$) to the open-ended question "Why match?" A substantial proportion of respondents (38.9%) reported that matching increased their partner's involvement in the DI process and subsequently in the child's life, including seeing this child as his or her own and being perceived by others as the child's father or mother. Related to involving the non-genetic parent in the child's life, matching was also associated with whether couples stayed together. Those whose relationships ended ($n = 15$) were less likely than those who stayed together ($n = 65$) to have matched the donor to the recipient's partner ($\chi^2 (1, n = 80) = 8.49, p = .004$). (It was also the case that those whose relationships remained intact tended to continue, rather than stop or take a break from, using DI ($\chi^2 (1, n = 80) = 4.51, p = .034$), suggesting that recipients with DI children are a select subsample of those who begin DI.) Although these results are preliminary, the issues they raise are open to further examination and may ultimately help to explain the recent findings of high success in the outcome and adjustment of both heterosexual and lesbian-headed DI families^{1,13,14} (but see also Brewaeys et al²⁰).

Are Women's Criteria Reflected in Actual Choices of Donors?

Group 2: DI Program Recipients

We compared recipients' stated preferences obtained in the telephone interviews (Group 1) to the donor attributes that predicted a second group of women's actual choices (Group 2). Group 2 was composed of recipients ($n = 55$) who participated in our DI program between 1993 and 1997, and were

comparable in age, sexual orientation, and marital status to Group 1 (Table 1). Subjects' ages ranged from 23 to 49, with an average of 38 years. The majority (80.0%) were in a marital or couple relationship, with over three-quarters of these having a same-sex partner. Single respondents made up 20.0% of the sample, and of these, most were heterosexual. We had no further demographic information available for this group.

Choosing Donors

Recipients chose up to six donors from catalogs that listed each donor's identity-release status, ethnicity, hair and eye color, height, weight, and blood type. We compiled the choices of women selecting sperm donors for the first time and for whom we could identify the catalog from which each had chosen. (Recipients also used information from narratives to choose donors, but this information was not included in the analysis because we could not identify the narratives they had read). A preference score was then calculated for each donor by dividing the number of times he was chosen by the total number of times he could have been chosen. This measure controlled for differences among the donors' opportunities to be chosen. Donors were then ranked on this measure, with a rank of one denoting the donor who was chosen most often. Zeros were also ranked, from lowest to highest denominator. Ranking decreased the skew of the distribution and allowed us to discriminate among donors who were never chosen but differed in their opportunities to be chosen. For example, a score of zero did not differentiate between a donor who had been available for only nine choices, but not chosen (a likely outcome), and a donor who had been available 90 times and not chosen (a less likely outcome), while a rank did. These rankings were then used as the dependent variable in the analyses. In total, 198 choices were made by 55 recipients, resulting in preference scores for 114 donors.

The Independent Variables: Donor Attributes

Three variables were identified from the catalogs that were similar to Group 1 respondents' criteria for donors: identity-release status and two physical attributes—height and body mass index (BMI; weight divided by height²). We included ethnicity as a control variable in case women were choosing only donors who shared their ethnicity.

Analysis of Choice Criteria

Hierarchical multiple regression analysis was used to identify the predictors of recipients' choices based on donor attributes, where recipients' choices were operationalized in terms of the donor preference scores. Hierarchical regression allowed us to examine the effects of identity-release, height, and BMI, once the effect of ethnicity had been removed. BMI was entered into the regression equation as a non-linear variable (BMI measurements and BMI² measurements), because mid-range scores are considered healthiest, with scores on either end of the range representing people who are either too thin or too

heavy for their height. All other variables were entered as linear variables, with identity-release entered as 1 (yes) or 2 (no), height as its measurement, and ethnicity as 1 (caucasian) or 0 (other).

Group 2's Choice Criteria

Results of the regression analysis indicated that, with the effects of ethnicity removed, the donor attributes of being tall and having identity-release status were significant predictors of women's choices (Table 3), while BMI was not. That height and being classified as identity-release were predictors of how often a donor was chosen is consistent with those same criteria being reported by women in the telephone interviews. Thus this analysis provided partial support for the validity of Group 1's stated preferences. Further validation might be possible in future studies if all of the information, including narratives, that recipients used to choose donors can be identified.

Conclusions

Previous studies—as well as the two new studies reported here, based on unusual samples containing more than the usual number of lesbian DI recipients—indicate that recipients choose sperm donors in part based on the donors' physical attributes, health history, and personality or character. Over the years, DI programs have provided an increasing amount of such information, and DI recipients have expressed interest in having more. This interest is probably motivated by a number of factors: (1) a wish to have a healthy child and to anticipate what the child will be like; (2) a desire to match physical and psychological characteristics with those of the non-genetic parent; and (3) the ease of telling the child something about the donor, if this is deemed desirable. In the present study, over 85% of recipients used physical attributes in choosing their donors; over 70% used character descriptors; almost 60% mentioned health-related items; and a third used height as a criterion. Many coupled recipients (60%) mentioned matching the donor's characteristics to those of their partner (the non-genetic parent). Perhaps surprisingly, although consistent with work by Klock and colleagues, mentioning any of these criteria was unrelated to a woman's relationship status or sexual orientation.

The fact that lesbian couples were as interested as heterosexual couples in matching the characteristics of the donor with characteristics of the non-genetic parent rules out at least one interpretation of the function of matching, at least in our

Table 3. Regression Analysis to Determine which Sperm Donor Attributes Predict Recipients' Choices of Donors

Variable ¹	b	SE b	β
Identity-release	22.92	5.19	.35*
Height	-148.10	36.29	-.33*
Constant	305.81	64.33	

R = .58; R² = .34; n = 114

¹Variables entered in step 2 of a hierarchical regression, where step 1 removed the effects of ethnicity.

*p < .001

sample. Matching is thought to help heterosexual parents keep offspring from realizing that they are genetically unrelated to their father. But children of lesbian couples would obviously realize eventually that one of their mothers was not their genetic parent, and almost all lesbian parents plan to tell their children how they were conceived. Thus matching must serve other functions, both for lesbian couples and for heterosexual couples who plan to explain to their children that they were conceived through DI. First, similarity between the child and his or her non-genetic parent may facilitate everyday interactions with other people, reducing the number of times that the issue of non-similarity is raised and the parent's status is questioned. Second, matching the donor to one's partner may increase the non-genetic parent's involvement with the DI process, the recipient's pregnancy, and eventually the child. This is probably important for heterosexual couples, because of the need to validate the father's role and increase his commitment to the child; but it may be especially important to lesbian couples, in which the non-genetic mother's role as a parent may be repeatedly questioned by some segments of society. It seems likely that working on the matching process also brings the couple closer together even before the child is born, because it signals to the prospective non-genetic parent that his or her concerns, values, and characteristics are important to the partner. Third, similarity between the child and the non-genetic parent may actually increase the sense of affinity between the two, making it easier for both parties to weather inevitable conflicts and stresses in the parent-child relationship. All three of these possible functions deserve further attention in future research.

A novel feature of the present studies was that clients of The Sperm Bank of California are offered two kinds of donors, those who wish to remain anonymous and those who give TSBC permission to make their identity known to offspring, if the offspring want this information and are 18 years of age or older. Both of our studies revealed that "identity-release" status is an important criterion for many DI recipients. In Group 1, 79% of recipients mentioned identity-release as one criterion they used when choosing donors. In Group 2, identity-release status was one of the most important predictors of recipients' actual choices. In Group 1, using identity-release as a donor selection criterion was unrelated to relationship status and sexual orientation. In light of earlier research, such as that by Brewaeys and colleagues, it was thought that identifying information about donors was primarily of interest to lesbians. It was also thought that single women were more interested in identifying information than married women. In our sample, however, heterosexual couples were as likely as other respondents to want identity-release donors. Their main motive seemed to be to provide more options for their future children. It seems likely that identity-release will become a more important and sought-after option at other DI programs. Sweden, Austria, New Zealand, and one state in Australia have already legislated identity-release as a mandatory part of their DI programs. Future research should be directed at the effects on donors and offspring of identity-release agreements.

Regarding our methodology, Broderick and Walker²⁶ reviewed the research on accessing information in the context of sperm and ovum donation and discussed ten major flaws that potentially compromise these studies' conclusions. In the current study, we have used methods designed to minimize the effects of several of these flaws. For example, where possible we used large samples (e.g., over 100 clients were interviewed), interviewed both current and past clients, and depended on more than one methodology to acquire data (e.g., 1 to 2 hour interviews and a separate analysis of actual decision-making behavior) and analyze it (e.g., basic descriptive analyses, multiple regression analysis). In addition, although the invitations to participate in the studies were sent from TSBC, the primary researcher (JES) was not an employee, but instead a grant-funded, university-based researcher who provided the participants with more room to refuse to participate and less reason to "please the experimenter", with whom they had no ties, by giving the "right" answers. Given these methodological precautions, it is noteworthy that our findings point to conclusions similar to those reached in previous studies, with respect to the information that seems important to DI recipients.

Although questions might have been raised about our use of retrospective interviewing as a means of revealing the criteria recipients used when choosing donors, our second study showed that actual decisions are influenced by some of the same criteria mentioned by respondents in the first study. These criteria include the donor's height and identity-release status. Other criteria, such as psychological characteristics and partner matching, could not be tested for validity because the information was not available in either the initial catalogs from which recipients chose donors or from case records. It seems likely, however, that these will also prove to be actual donor-choice criteria when tested in future studies.

In summary, research conducted to date suggests that DI recipients generally want extensive information to select sperm donors. In addition, extensive information may help recipients later, with anticipating what their children will be like and with explaining the children's DI conception, if the recipients choose to disclose this. In the present study, 60% of couples also matched the donor to the recipient's partner, regardless of whether they were in a same- or opposite-sex relationship. This suggests that matching may serve multiple functions beyond decreasing perceptions of non-genetic relatedness between a recipient's partner and the child. Finally, in our sample, the majority of recipients reported wanting identity-release donors and thus gave their future children the option to identify and possibly meet their donor. Interestingly, this preference for identity-release was unrelated to a recipient's relationship status or sexual orientation, suggesting that not only single women and lesbian couples, but also heterosexual couples are likely to opt for this new type of donor. Further examination of these ideas will be possible in future studies and should extend to the long-term outcomes of choosing identity-release donors.

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