

Egg Freezing at the End of Romance: A Technology of Hope, Despair, and Repair

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Abstract

The newest innovation in assisted reproduction is oocyte cryopreservation, more commonly known as egg freezing, which has been developed as a method of fertility preservation. Studies emerging from around the world show that highly educated professional women are turning to egg freezing in their late thirties to early forties, because they are still searching for a male partner with whom to have children. For these women, egg freezing may be a new “hope technology” for future romance; but it may also be a “technology of despair,” as women navigate the ends of a failing relationship. Based on the largest ethnographic study to date, undertaken with 150 women who froze their eggs for nonmedical reasons in the United States

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and Israel, we examine egg freezing at the end of romance. Relationship dissolution—involving divorce, separation, broken engagements, and relationship breakups from men who are unfaithful, controlling, rejecting, uncommitted, or unready for fatherhood—is one of the major pathways to egg freezing. When such relationship dissolution ruptures a woman's reproductive life course, egg freezing may become a "technology of repair," allowing women to find new strengths and opportunities as well as new visions for the future.

Keywords

assisted reproduction, divorce, egg freezing, men as partners, oocyte cryopreservation, relationships

Introduction—Egg Freezing as a New Hope Technology

In 1978, Louise Brown, the world's first "test-tube baby," was born in England. For the first generation of British couples, in vitro fertilization (IVF) was a "hope technology"—the term coined by sociologist Sarah Franklin (1997) to signify the aspirational nature of British patients' narratives, which were steeped in the language of "hope," "miracles," "progress," "gratitude," "good fortune," and "luck." For Lesley and John Brown, the parents of baby Louise, IVF was their hope technology, effectively overcoming nine years of heartbreaking involuntary childlessness. More than four decades later, IVF has created both hope and joy for the parents of more than 8 million IVF babies now born around the world, representing at least 4 percent of all children in Western societies (European Society for Human Reproduction and Embryology [ESHRE] 2018).

As pointed out by Franklin (2013) in her more recent book, *Biological Relatives: IVF, Stem Cells, and the Future of Kinship*, IVF has birthed more than babies. IVF has been a powerful "platform technology" for a multitude of second-generation assisted reproductive technologies. The newest is oocyte cryopreservation, more commonly known as egg freezing, which has been developed as a method of fertility preservation. In oocyte cryopreservation, human oocytes (eggs) are "harvested" from the ovaries after ovarian stimulation for freezing and storage in egg banks. Oocyte cryopreservation effectively freezes women's eggs in time, so that as a woman ages, her frozen eggs do not. Thus, she can utilize younger and potentially healthier eggs in a future IVF cycle.

Similar cryopreservation techniques for human sperm and embryos had already been mastered during the late twentieth century, but the freezing of human eggs proved elusive. Not until the early 2000s did a method of flash freezing called vitrification become perfected (Mertes and Pennings 2012), proving more successful than the method of slow freezing (Setti et al. 2014). First tried on young cancer patients, who were at risk of losing their fertility due to the sterilizing effects of chemotherapy, the initial success of vitrification led to expanded clinical indications, including for healthy women at risk of age-related fertility decline. Within a decade, the utility of oocyte vitrification as a form of fertility preservation for both medical (e.g., cancer) and nonmedical (e.g., age-related fertility decline) indications was clear. Thus, egg freezing through vitrification began to move into clinical practice around the world—for example, in 2011 in Israel and in 2012 in the United States and Europe, when both the American Society for Reproductive Medicine and the European Society for Human Reproduction and Embryology (ESHRE) lifted the experimental label.

Today, the International Federation of Fertility Societies (IFFS 2019) calls egg freezing “one of the most significant recent advancements in assisted reproduction technology.” Of eighty-two countries reporting to IFFS (2019) in its most recent state-of-the-art survey, sixty-eight (83 percent) allow egg freezing for medical fertility preservation, fifty-six (68 percent) also allow egg freezing for nonmedical indications, and more than half (52 percent) report frequent performance of egg freezing cycles in their IVF clinics. According to the IFFS report, preliminary data on the safety of egg freezing are reassuring, with good evidence that fertilization and pregnancy rates are similar with fresh or frozen (and then rewarmed) eggs. No increases in chromosomal abnormalities, birth defects, or developmental deficits have been noted in the children born from frozen eggs (Setti et al. 2013).

Although the IFFS survey provides statistical evidence of the global spread of egg freezing to many different countries around the world, the survey does not examine *why* women are turning to egg freezing. To answer that question, both quantitative and qualitative studies of women who are freezing their eggs have been conducted, most published within the past five years. These studies come from a number of different countries, including Australia (Hammarberg et al. 2017; Pritchard et al. 2017), Belgium (Stoop et al. 2015), Korea (Kim et al. 2018), Turkey (Göçmen and Kılıç 2018; Kılıç and Göçmen 2018), the United Kingdom (Baldwin 2017, 2018, 2019; Görtin et al. 2019; Waldby 2015, 2019), and the United States (Brown and Patrick 2018; Carroll and Kroløkke 2018; Greenwood et al. 2018;

Hodes-Wertz et al. 2013; Inhorn, Birenbaum-Carmeli, Birger, et al. 2018; Inhorn, Birenbaum-Carmeli, Westphal, et al. 2018). In all of these studies, women comprise a particular demographic: namely, highly educated professionals with incomes sufficient to afford this costly technology (e.g., in the United States, an egg freezing cycle costs US\$10,000–US\$15,000, with annual storage fees of US\$500–US\$1,000). Furthermore, women in all of these studies are turning to egg freezing in their late thirties to early forties, when age-related fertility decline (i.e., the so-called “fertility cliff”) begins to impact their reproductive function (Waldby 2019).

Indeed, age is the main factor in predicting egg freezing outcomes (Doyle et al. 2016; Goldman et al. 2017). One recent study shows that women ages thirty-four, thirty-seven, and forty-two would need to freeze ten, twenty, and sixty-one eggs, respectively, for a 75 percent chance of at least one live birth outcome; a thirty-four-year-old woman with twenty frozen eggs would have a 66 percent chance of two live births, while a forty-two-year-old would have only 7 percent (Goldman et al. 2017). In a recent large-scale study assessing IVF outcomes after egg freezing, 641 of 5,289 women (12 percent) returned to use their eggs at a mean age of 39.9, having frozen them at a mean age of 37.6. But women who froze their eggs when they were younger than thirty-six had significantly higher cumulative birth rates (68 percent) than women age thirty-six and above (26 percent) (Cobo et al. 2018).

Given these clinical realities, the question remains: Why are so many women in their late thirties and early forties choosing to freeze their eggs? In part, aggressive marketing strategies by IVF clinics, egg banks, and stand-alone clinics may advertise egg freezing to women as a “fertility insurance policy,” increasing women’s hopes beyond reason (van de Wiel 2020). A recent study assessing the quality of egg freezing information on Australian IVF clinic websites deemed more than half of them (57 percent) to be “poor” in conveying transparent and scientifically accurate data (Beilby et al. 2020).

But beyond the issue of false advertising, women in their late thirties and early forties are being compelled to use egg freezing for another reason. According to every qualitative and quantitative study conducted to date, the “lack of a partner” is consistently cited by more than four-fifths of women (>80 percent) as the primary reason for their egg freezing decisions. Put another way, these are women who would like to have children within a heterosexual reproductive relationship. But in the absence of a life partner, they turn to egg freezing to hold onto their remaining reproductive potential.

This intersection between egg freezing women's "singleness" and their advancing reproductive age has been most carefully analyzed by sociologists Brown and Patrick (2018). They interviewed fifty-two American women of diverse ethnic backgrounds, of whom thirty had frozen their eggs, nineteen were "thinking" about it, and three had decided against it. The vast majority of women were single and never married but hoped that egg freezing could "disentangle" their romantic desires and trajectories (i.e., finding a heterosexual partner) from their reproductive ones (i.e., getting pregnant and having children). Egg freezing was, in this study, a tool "to renegotiate the relationship between romantic and reproductive trajectories and temporalities" (Brown and Patrick 2018, 959). By temporarily separating romance from the biological clock, women in this study "hoped to bracket long-term childbearing goals, change the experience of their partnership trajectory, and signal to prospective partners that they were not 'in a rush' to find a long-term partner and have children" (Brown and Patrick 2018, 975).

The high hopes that women place in egg freezing while "looking for love" is also taken up in another small-scale ethnographic study, this one involving fifteen mostly single, white American women, all of whom had frozen their eggs. Carroll and Kroløkke (2018) coin the term "anticipatory coupledness" to describe these women's desires to meet the right man, get married, and conceive a pregnancy. Emphasizing the heteronormative dimensions of this traditional life course trajectory, Carroll and Kroløkke argue that women in their study were "banking on a future of love by investing in egg freezing." Indeed, "the allure of egg freezing," they argued, "was to uphold a particular, normative love story" (Carroll and Kroløkke 2018, 1000).

In these and similar ethnographic studies, egg freezing is represented in aspirational terms—as a kind of "new hope technology" for single women. Egg freezing allows a woman to imagine future motherhood but also gives her the time to find and fall in love with a man who will become the father of her future children. Egg freezing is thus cast in a futuristic, anticipatory mode—not only to prevent the "anticipated infertility" of age-related fertility decline (Martin 2010) but also to shape anticipated coupledness (Carroll and Kroløkke 2018), with the "end goal of bundled marriage and childbearing" (Brown and Patrick 2018, 959).

That single women are "freezing for love" (Carroll and Kroløkke 2018) and "romance" (Brown and Patrick 2018) in a prospective, forward-looking manner is an extremely important part of the egg freezing story—in fact, the most important one (Inhorn, Birenbaum-Carmeli, Birger, et al. 2018).

However, it is not the only story. In this article, we focus on a major pathway to egg freezing that is decidedly less romantic and more retrospective in nature. Rather than turning to egg freezing in hopeful anticipation, many women are turning to this technology in despair, while navigating their way through the death throes of a failed or failing relationship. This situation might best be described as *egg freezing at the end of romance*.

Relationship dissolution of different types among different categories of women needs to be further interrogated as a major cause of egg freezing. As we will show, relationship dissolution underlies the “singleness” of many women at the time of egg freezing. Furthermore, even women who report being “married” or “partnered” may, in fact, be pursuing egg freezing because of serious relationship instability or separation (Inhorn, Birenbaum-Carmeli, Birger, et al. 2018). At the time of egg freezing, relationship dissolution may involve divorce, separation, broken engagements, and relationship breakups. For women going through relationship dissolution, it may be mutually negotiated, peaceful, and ultimately liberating. But more often than not, it may be filled with anger and betrayal, trauma and tragedy, disappointment and despair.

As we will see, despair—the loss or absence of hope—is a narrative theme in many women’s egg freezing stories. As they turn to egg freezing at the end of romance, many women ask, “What else am I to do?” In such narratives, egg freezing emerges as a *technology of despair*. The sense of loss, betrayal, hopelessness, even desperation may be particularly pronounced for women in their late thirties or early forties, who are running out of reproductive time. Losing a relationship at such a critical reproductive juncture represents a significant assault on one’s very sense of self and hopes for the future. Speaking of such reproductive disruptions, medical anthropologist Gay Becker (1994, 383) has noted:

In all cultures, the life cycle is structured by expectations about each phase of life, and meaning is assigned to specific life events and the roles that accompany them. Particular emphasis is given to young and middle adulthood because a series of specific life events such as marriage and childrearing usually occur during this life phase and lay the groundwork for the remainder of the life cycle. When expectations about the life course are not met, however, people experience inner chaos and disruption to the fabric of their lives. Such disruptions represent loss of the future.

In the study to be described in this article, we examine the stories and ethnographic interview narratives of women who experienced relationship

dissolution in their mid- to late-thirties and early forties. Through in-depth ethnographic interviews, these women shared their “breakup stories”—sometimes tearful and often involving heartbreak, loss, and uncertainty about the future. We explore women’s views of their partners and the reasons why their relationships ended. Whether women left their partners or their partners left them, these forms of relationship dissolution were often preceded and followed by intense moments of angst and despair, in which women undertook egg freezing in the midst of heartache.

Yet, in the aftermath, many women were glad that they had made this life-changing decision. As seen in women’s narratives, egg freezing can also be conceived of as a *technology of repair*. For women whose anticipated life course trajectories had been disrupted or broken, egg freezing provided them with a temporary biological reprieve, allowing women to heal their relationship wounds, recalibrate their sense of identity, and attempt to restructure the future out of a disrupted life course. Egg freezing also fueled some women’s visions for different futures, in which partnership no longer became an end goal. Although egg freezing may occur at the end of romance, in its aftermath, women may find new strengths and opportunities, as they reflect on egg freezing and its outcomes.

The Ethnographic Study, Methods, and Participants

This article is based on an in-depth, ethnographic, medical anthropological study designed to explore the lives, motivations, and experiences of women who undertook egg freezing in the United States and Israel, among the first two nations to allow egg freezing for nonmedical indications. Between June 2014 and August 2016, women who had completed at least one cycle of egg freezing were recruited from seven IVF clinics, four in the United States (two academic, two private) and three in Israel (one academic, two private). In the United States, three of the clinics were located on the East Coast (New Haven, Connecticut; New York, New York; and Baltimore, Maryland/Washington, DC), and one was located on the West Coast (San Francisco Bay/Silicon Valley, California). In Israel, the clinics were located in Tel Aviv and Haifa.

In the American IVF centers, study flyers were posted and were sent by email or were given directly to women during their appointments. Women who volunteered for the study then contacted the first author directly. In Israel, clinic staff phoned women directly, inviting them to take part in the study. Women who volunteered to participate were then contacted by the second author, who set a time and place for the interview.

As an anthropological study, our ethnographic approach was “person-centered” (Levy and Hollan 2015), foregrounding the thoughts, understandings, and intersubjective experiences of individual women through their interview narratives. Person-centered interviewing is especially well suited to understanding individuals’ perceptions of morality, the body, stress, illness, healing, and emotion—all “sensitive” subjects highly relevant to the topic of egg freezing.

To ensure high levels of ethicality, we sought and received human subjects approval from Institutional Review Boards at both of our universities, as well as through the ethics committees of each collaborating IVF clinic. All participants in the study were asked to read and sign a written informed consent form agreeing to be interviewed by either the first or second author (in the United States and Israel, respectively). Both are medical anthropologists with many years of ethnographic research experience in IVF clinic settings in North America and the Middle East.

As part of the consent process, women were made aware that (1) participation was entirely voluntary, (2) audio-recording of the interview was optional, (3) some questions of a personal or sensitive nature could be refused, (4) participation was private and confidential, (5) only the researcher would know the true identity of the participant, and (6) no real names or identifying information would be used in the research reports emanating from the study.¹

Our ethnographic interviews took place in private settings chosen by the participants. These included IVF clinics, women’s homes and offices, and cafes, libraries, and other public settings. In the United States, where women volunteering for the study lived in a variety of different cities, some interviews took place by phone or Skype. Interviews in both countries generally lasted about one hour, but ranged from one-half to two hours, depending upon the details of women’s stories.

The first and second authors carried out interviews using an identical semi-structured, open-ended interview guide, which was translated into Hebrew in Israel. In the initial semi-structured portion, women were asked a brief series of sociodemographic questions (i.e., age, place of birth, current residence, education completed, current employment, marital status, ethnicity, religion) as well as relevant details of their reproductive history (i.e., age at menarche, contraceptive use, any known reproductive problems). Following these semi-structured questions, the ethnographic interviews moved to an open-ended format, in which women described their egg freezing stories in their own words. Women most often “led” the interviews, describing their life circumstances at the time of egg freezing, their primary

motivations for undertaking the procedure, and their experiences of the actual process. Most women spoke freely and unprompted, sharing their thoughts, experiences, and challenges of egg freezing within the overall context of their lives.

Completed interviews were then transcribed verbatim by trained research assistants. In Israel, interview transcripts were translated from Hebrew into English by a professional bilingual translator. Following transcription and translation, all interview transcripts were uploaded into a qualitative data analysis software program (Dedoose, version 4.3) for thematic content analysis, using a coding scheme codeveloped by the medical anthropologists. Sociodemographic information was transferred into Excel files for descriptive statistical analysis. As is usual for ethnographic research, the main analytic strategy was to systematically search for and examine themes and patterns emerging from the interview materials. Detailed interview synopses were also written and summarized for each individual in the study in line with the person-centered ethnographic approach. The research materials were shared between the two medical anthropologists, who were able to compare similarities and differences between the US and Israeli data.

Over the two years of the study, 150 women (114 American, 36 Israeli) who had completed at least one cycle of nonmedical egg freezing volunteered to participate in the study, making this the largest ethnographic study of egg freezing undertaken to date. At the time of egg freezing, 127 of 150 (85 percent) of these women were single. Of these single women, 45 of 127 (35 percent) had experienced relationship dissolution. In addition, six of the twenty-three married and partnered women in the study (26 percent) were in the midst of separations.

Taken together, fully one-third of the women in the study (51 of 150) cited relationship dissolution as the primary cause of their egg freezing as shown in Table 1. Eleven of these women were Israeli, representing nearly one-third (31 percent) of the Israeli total. The other forty were American women, representing slightly more than one-third (35 percent) of the American total. In other words, the rates of relationship dissolution among women pursuing egg freezing in the two countries were quite similar.

As also shown in Table 1, these women were highly educated, with fully three-quarters of women (thirty-eight of fifty-one) having postbaccalaureate graduate degrees. All of them were employed, with careers primarily clustered in medicine, science and technology, law, academia, government, business, communications, psychotherapy, and the arts. The average age at

Table 1. Study Participants Experiencing Relationship Dissolution.

No.	Nationality	Place of Residence	Education: Highest Degree	Profession	Age at Egg Freezing	Number of Eggs Frozen	Relationship Status at Egg Freezing	Relationship Status at Time of Interview
Divorced/divorcing								
1	American	California	MBA	IT finance director	37	11	Divorced	Single
2	American	Maryland	MA	Nurse practitioner	33	5	Divorced	Remarried with child
3	American	North Carolina	MA	Higher education administrator	39	23	Divorced	Remarried
4	American	Texas	BA	Environmental communications	36	21	Divorced	Partnered
5	American	Washington, DC	PhD	Professor	38	20	Divorced	Remarried with child
6	American	Virginia	MBA	Lobbyist	35	18	Divorced	Engaged
7	American	Washington, DC	MA	Project manager, international development	41	5	Divorced	Single
8	American	Maryland	PhD	Planetary scientist	37	27	Divorced	Partnered
9	American	Virginia	BA	Publishing sales director	34	15	Divorced	Partnered
10	American	Washington, DC	JD	Attorney	38	3	Divorced	Single
11	American	Washington, DC	MBA	IT headhunter	38	28	Divorced	Single

(continued)

Table 1. (continued)

No.	Nationality	Place of Residence	Education: Highest Degree	Profession	Age at Egg Freezing	Number of Eggs Frozen	Relationship Status at Egg Freezing	Relationship Status at Time of Interview
12	American	Maryland	MD	Physician	37	19	Divorced	Newly partnered
13	American	California	MA	Nurse	39	7	Divorced	Partnered
14	American	Virginia	MS	Healthcare regulator	37	1	Divorced	Single
15	American	Maryland	MPH	Healthcare consultant	37	8	Divorced	Partnered with child
16	American	Virginia	BS	IT financial director	37	24	Divorced	Single
17	American	Maryland	MBA	Business analyst	40	7	Divorced	Single with child from ex-husband
18	American	Virginia	MS	Military officer	38	15	Divorced	Single
19	British-American	California	MA	Attorney	39	10	Divorcing	Single
20	Israeli	Tel Aviv	MA	Teacher	36	8	Divorced	Single with child from ex-husband
21	Israeli	Haifa	MA	IT human resources	33	2	Divorced	Single
22	Israeli	Haifa	MA	Therapist	38	4	Divorced	Single
23	Israeli	Tel Aviv	MA	Bartender	33	12	Divorced	Single
Separated/separating								
24	Israeli	Tel Aviv	BS	Construction contractor	36	18	Married	Separated with child
25	American	Connecticut	BA	Small business owner	39	6	Married	Separated

(continued)

Table 1. (continued)

No.	Nationality	Place of Residence	Education: Highest Degree	Profession	Age at Egg Freezing	Number of Eggs Frozen	Relationship Status at Egg Freezing	Relationship Status at Time of Interview
26	American	Washington, DC	JD	Attorney	40	18	Married	Separating with child
27	American	North Carolina	MA	Graduate student	38	24	Married	Separating
28	American	Virginia	BA	Employment recruiter	36	29	Partnered	Separating
29	Israeli	Tel Aviv	BA	Musician	36	28	Partnered	Separating
30	Broken engagement American	California	MD	Academic physician	38	55	Prior divorce, broke off second engagement	Single
31	American	New York	BS	Fashion designer	37	11	Broke off engagement	Single
32	American	Washington, DC	MSc	Pharmaceutical executive	38	18	Broke off engagement	Single
33	American	New York	MD	Academic physician	35	12	Broke off engagement	Single
34	American	New York	MBA	Art curator	43	16	Broke off engagement	Single

(continued)

Table 1. (continued)

No.	Nationality	Place of Residence	Education: Highest Degree	Profession	Age at Egg Freezing	Number of Eggs Frozen	Relationship Status at Egg Freezing	Relationship Status at Time of Interview
35	American	California	BA	Start-up communications director	33	17	Broken up	Single
36	American	California	MBA	IT CEO	34	7	Broken up	Single
37	American	Washington, DC	MPA	Healthcare policy maker	36	16	Broken up	Single
38	American	Washington, DC	JD	Lobbyist	35	23	Broken up	Single
39	American	Maryland	MD	Physician	38	7	Broken up	Single
40	American	Maryland	MD	Physician	39	11	Broken up	Single
41	American	Washington, DC	MPP	Career coach	41	10	Broken up	Single
42	American	New York	BA	Journalist	38	14	Broken up	Partnered
43	American	California	PhD	Nonprofit director	37	14	Broken up	Single
44	American	Overseas	BA	Humanitarian aid worker	36	10	Broken up	Single
45	American	California	BA	Paralegal	38	14	Broken up	Single mother, with child from ex-partner

(continued)

Table 1. (continued)

No.	Nationality	Place of Residence	Education: Highest Degree	Profession	Age at Egg Freezing	Number of Eggs Frozen	Relationship Status at Egg Freezing	Relationship Status at Time of Interview
46	American	Connecticut	MD	Physician	35	11	Broken up	Single mother, with donor child
47	Israeli	Tel Aviv	PhD	Biologist	38	7	Broken up	Single
48	Israeli	Tel Aviv	BA	Project manager	36	7	Broken up	Single
49	Israeli	Haifa	MA	Graduate student and child caretaker	35	6	Broken up	Single
50	Israeli	Haifa	MD	Physician and teacher	35	9	Broken up	Single
51	Israeli	Haifa	MA	HR manager	40	1	Broken up	Single

Note: IT = information technology; HR = human resources.

which women froze their eggs was thirty-seven, and the average number of eggs frozen was fifteen.

Among those women affected by relationship dissolution, twenty-three women were divorced or divorcing (45 percent), six were in the process of separating or were separated (12 percent), five had experienced broken engagements (10 percent), and seventeen had broken up with long-term partners (33 percent). More than three-quarters of these women (forty of fifty-one or 78 percent) were still single at the time of the interview. However, ten of twenty-three divorcees (43 percent) had remarried or repartnered, using egg freezing on the road to repairing their disrupted life course trajectories.

Egg Freezing at the End of Romance—A Technology of Despair and Repair

Early on in our study, the first author interviewed an American IVF physician, who was one of the pioneers of egg freezing and banking in the United States. Reflecting on his patient population, he connected the rise of egg freezing to relationship dissolution in the United States:

Ok, so right now, the profile is a woman age thirty-seven to almost forty, mainly thirties, who has either recently experienced some kind of social shock or trauma, like a divorce or a breakup, or some other kind of loss. Yeah, that's—it's not always a breakup of a relationship, sometimes these women are in stable relationships, but whatever the shock is has really diverted them away from the idea of making a baby. You know, thirty-seven or thirty-eight, they can't—they can't waste much time and they are terrified of letting the cards fall as they may. They are mostly professional women. But not all . . . They're coming for the same reason. There's been a trauma. Or there's been a little light bulb going off in their head that basically says, "Oh my god, I'm not married or I haven't had kids yet and I'm thirty-seven, thirty-eight, what am I going to do?"

Although this physician's focus on "trauma" surprised the first author at the time, his words were, in fact, prescient. As our own study progressed, we learned that approximately one-third of the women in our study were turning to egg freezing because of relationship dissolution, including the majority who were divorced or in this process. These figures are actually less than the overall divorce statistics in the two countries. In the United States, 44.6 percent of marriages end in divorce (Centers for Disease

Control 2017), although the percentage is significantly less for educated women (Lehrer and Son 2018; Pessin 2018). But 60 percent of divorces in America involve spouses between the ages of twenty-five and thirty-nine—in other words, during women’s prime reproductive years. Among Israeli Jewish couples, 32.7 percent of couples divorce, with forty-two being the average age for men and 39.5 for women (Central Bureau of Statistics, Israel 2019).

All of the women in our study were already in their thirties when they experienced relationship dissolution, thereby bringing issues of future childbearing to the fore. Many had been in long-term relationships with their partners and thus were hurt and despairing when these relationships, in which they had invested time, energy, and emotion, ultimately fell apart. Some women cried when retelling their stories. Those who had loved their partners described themselves as “heartbroken,” even “devastated.” Some women admitted that it took them months, even years, to “recover” from their breakups. Other women whose partners had betrayed them in one way or another were bitter, even livid. Many women used negative epithets to describe their ex-husbands and ex-partners, calling them “assholes,” “big jerks,” “narcissists,” even “psychopaths.” Divorces themselves were often described as “acrimonious,” “antagonistic,” “contentious,” “soap opera-ish,” and “passive aggressive.” The verb “dragged” was often used to describe the ways in which difficult, complicated, and often costly divorce cases dragged on.

Women in this study had a variety of different stories to tell about their divorces, separations, broken engagements, and relationship breakups. American women’s breakup stories involved men’s infidelity, controlling behavior, career ambitions, and sexual rejection. However, the major reason for relationship dissolution among both American and Israeli women was men’s unreadiness for fatherhood. Sometimes, this was due to partners’ age differences, especially in breakup stories from Israel, but sometimes it had to do with men’s lack of overall maturity. We describe each of these causes of relationship dissolution in turn, focusing on the voices of women themselves as they reveal feelings of anger, betrayal, disappointment, and despair.

But as these vignettes also show, women were not helpless and hapless victims. In each case, they took proactive measures to protect themselves—and their future fertility—by turning to egg freezing. Some women took a year or more following breakups to make such egg freezing decisions. Others resolved to freeze their eggs within weeks or months of separation. Egg freezing was also undertaken in the midst of relationship dissolution, often leading to complicated breakup stories and egg freezing logistics.²

However, as these women's stories will show below, egg freezing at the "end of romance" also offered recuperation—the potential to repair women's biographical life courses after relationships had been broken.

Men's Infidelity

One genre of relationship dissolution that was particularly pronounced among the American women in this study involved a husband's infidelity, always accompanied by deceit, and sometimes by emotional abuse and substance use. In most of these cases, infidelity and its consequences ultimately led to divorce.

Anna, an American IT finance director who had married in her early twenties, discovered that her husband had been cheating on her for over a decade of marriage, as she described:

I think he had been unfaithful, frankly, throughout the whole marriage So, we separated at thirty-one, but if you believe it, the divorce dragged on for like three and a half years. You know, I was very young when I was married, so I hadn't really dated that much. And to be honest with you, Marcia, I really wasn't really ready up until late last year. I really wasn't. For me, it was a bit of a traumatic experience I was kind of a naive type of a girl. I was very protected. I had a very protective childhood. I went to private schools my entire life, and like kind of always—luck had always worked out for me. But I see now the flip side, that you're not sort of prepared for something like that I think it took maybe about five or six years to really be like, okay.

Elsa had already turned thirty when she married her husband. Together, they headed overseas for foreign service jobs. But when Elsa became pregnant and miscarried at the age of thirty-six, her marriage began falling apart:

He was apparently cheating for a while and everybody knew except for me kind of thing [laughing]. My husband was unfaithful and had a bunch of other issues. But once I lost the pregnancy, he admitted to me that he didn't feel ready to be a father and that he was secretly relieved, and then once I realized that children were probably not going to happen with this man, it didn't seem like there was much point in staying in the relationship. And I didn't actually find out about the infidelity until I'd already moved out, so It took two years for the divorce to come through because he was overseas for much of it, and we had some disagreements about how we would split things up, and it was challenging. But it was during that window of time actually, before my

divorce came through but after we were separated, that I made the decision to freeze my eggs.

Freezing eggs upon the discovery of infidelity was one of the most despairing moments for women, as it also involved crucial decisions about whether to reconcile or leave a relationship with an untrustworthy man. Sadie, an American business analyst, volunteered for the study because she thought her situation might be “different.” She had been with her husband for fourteen years and already had a young son when she discovered that her husband was living a “double life.” Calling herself a “broken-hearted single mother,” she explained:

He was an alcoholic. He had been unfaithful. I didn’t know this until after the separation, but I, you know, suspected some things. But I just didn’t think he was capable of these things. The irony being that he—he ended up getting someone pregnant by accident.

So, [laughing] it’s just ironic . . . it was during our separation, but it was sort of during a time I thought we were reconciling. But he remains very awful and antagonistic and dragged me through a four-year divorce . . . and I don’t know why, because he was the one that, you know, had created the situation. He was already with this person, with this other person with a child and you know, it’s awful. He’s just awful . . . I’ve been trying to make peace with that and I, you know, still struggle with, you know, a lot of the betrayal and the marriage and the divorce and how it continues, the antagonism continues. So there’s a lot of things that I still am kind of not quite whole on.

One evening, when viewing a video of her now seven-year-old son as a toddler, Sadie was seized with longing for those happier days and perhaps for a future with another child. Having already turned age forty, Sadie used all of her savings for one low-yielding cycle of egg freezing, “trying to invest in some part of my future,” she explained.

Men’s Controlling Behavior

Not all marriages and breakups were as long or drawn out as Anna’s, Elsa’s, or Sadie’s. But even short marriages and breakups could be quite difficult and traumatic. Several women in this study made quick exits from marriages when men’s behavior changed from “charming” to “controlling.” Kara, an American engineer who was also a practicing Catholic, was hoping for an official annulment from the Church at the time of our interview.

Her husband, who she described as having “narcissistic personality disorder,” was making it as difficult as possible, after drawing out their divorce proceedings unnecessarily:

Once we got married, all of a sudden [he] became very controlling and dominating He had never been married before [in his forties]. And yeah, that was a huge red flag You know, he kind of talked me [into marriage]. I mean, very manipulative, you know, very charming, very whatever, you know? So, some of these guys are just really good at their craft, you know? And—he manipulated everyone in his whole life . . . even my family, friends, like, they all thought he was amazing. You know, I thought he was amazing, too! . . . I had no choice but to get out, dealing with someone like that He knew that I wanted to have kids, but then he was mad that I was leaving him. So then he decided time was the most precious thing for me. And he was going to extend that as long as possible to—as like a passive aggressive tactic—to get back at me for doing that I think coming out of such a short, difficult marriage, and obviously, I made a mistake—I didn’t want to be rushed to get into another relationship, just because I wanted to have kids again or rush to get married again because of my biological clock. So, it [egg freezing] was a decision to hopefully extend the clock a little bit. So, I had a little bit more time to be able to recover from this . . . not rush to make another, essentially, bad decision.

Sarah, who was an academic physician at an American university, froze her eggs at age forty-one, following marriage to a fellow physician, who she also discovered was rigidly controlling. Speaking of her ex-husband, Sarah admitted:

I didn’t know him very long. I met him in I think February or March at a [medical specialty] conference. So we just met a few times. We talked on the phone. So I didn’t know him very well. I think we married the idea of each other, which probably a lot of people do . . . and yet he wanted to dictate everything I did, from the underwear I wore, to the people I talked to, to the toothpaste I used I think it definitely affected me when I meet people . . . I would rather be with someone who respects my value system, than imposes theirs on me and says “No.”

Men’s Career Ambitions

Although Sarah had made the wrong choice when she married her controlling husband, she thought she had made the right choice when she became

engaged again. However, her fiancé effectively abandoned their relationship, breaking off their engagement before moving across the country for an additional professional degree. Three years later, at the time of our interview, Sarah had just learned that her former fiancé was engaged to someone else. “So, it’s kind of ironic that it ended because he wasn’t ready to get married, but now he’s finishing school. A lot of life has to do with what stage we’re in.”

Sarah was one of several women who were married, or in a “pretty serious relationship,” with men who did not want to make professional sacrifices in order to stay with their partners. Career moves were usually involved in these breakups, along with changes of heart that were not always explicable.

Lisa, a lobbyist in Washington, DC, was involved with a man who finally got his “dream job” in the foreign service and left her:

He got in, and then we had to make the decision if I’m going to go with him or not, and it was this horrible, yearlong, back and forth on what we should do, and then finally we decided I’m not going to go, and so he left. He went [overseas] and I stayed . . . Oh, it was so horrible. Because we were, probably, as close to, you know, getting married and all that, as anybody else I know. We would’ve been fine. But that’s his dream and he needed to live it and it didn’t make sense for me . . . to give up everything just for the relationship.

Lisa talked to her doctor because her stress levels were so high, and she ended up having a conversation about egg freezing:

So it was in the middle of all that . . . and it was hard, I mean, emotionally . . . I was kind of like, “What else am I going to do?” This is the best option I have right now, so I’m not going to be upset about it. I’m going to feel good that at least I’m doing something.

Similarly, Laila, who had met her husband in her early twenties and had been with him for fourteen years, found herself alone at the age of 38.5. Her husband had a prominent career overseas in the humanitarian community. But when Laila asked him to return to the States and start a family with her, he became what she describes as “just very super weird,” followed by “ghosting” her. Commenting on her subsequent divorce and egg freezing, Sarah explained:

It’s like I was divorcing myself. It’s like there’s no evidence of the relationship . . . I think he feels a lot of guilt for many things—most, you

know, like, essentially abandoning the relationship It's hard because you're plotting along, and you have to make decisions because you can't just bury your head in the sand at my age. Like, what are your choices going to be? . . . In the end, after like ten months and many, many thousands of dollars, I have what I call "my three golden eggs."

Men's Sexual Rejection

While Lisa and Laila loved their partners but their partners left them, some women were the "leavers," even though they loved their partners. Irreconcilable differences often played a role—the most irreconcilable one being men's sexual rejection.

Jessica, a scientist working for the US government, had been together with her scientist husband—her "best friend"—for fourteen years. But she believed he was on the autistic spectrum, which had made her marriage increasingly untenable:

He is a very interesting person. I think he is definitely somewhere on the Asperger spectrum and I was the only person he'd ever been with and maybe only person he ever will be with. He's very sweet. Very loyal . . . [But] one of the problems was that our relationship had become, he's become fairly asexual. And that was a big deal to me [laughing]. And I wanted to have an active sex life with my partner, or even a sex life. So you know, it was something that we went to counseling for, and you know, we worked on, as much as we could. And even when we, you know, went to a couple of therapists, who [told] us the final time, "I don't know if I've ever seen two people with so much mutual respect and care for each other, but you should still get divorced." . . . It makes me sad. I mean—because he still, for a long time, he was the person, the first person I go to for anything, you know, everything [On the night before egg freezing] he had a four-wheel drive, so he drove me up, and we stayed in a hotel and then he took me in and it was—it was definitely emotionally difficult in a lot of ways because of that.

Similarly, Gillian, a director in a US software firm, had been in a six-year commuter marriage with her husband, who she suspected might be a closeted gay man. As with Jessica, Gillian's ex-husband was the one to take her to the IVF clinic:

We're still very close but we were not supposed to be married I mean, there were many, many years when he was just—he was not interested as well, so I think it was very hard. I didn't understand. He rejected me

physically, or, you know, sexually, a lot even early on in the marriage. And because he was my first and only, I really didn't know any better But then as I was getting older and then I started to talk to friends and my therapist about this, it was like, "Well wait a minute, this isn't normal." And so, you know, as much as I love him, and he probably still loves me, there was just something missing that we tried to go to therapy together and he went two sessions and that was it—he wouldn't go again I couldn't see that someone would actually want to be with me, that I would ever be able to meet someone else, but it was just this part of me that was like, I need an insurance policy. If I am going to have children, I don't know when that might be.

Men's Unreadiness for Fatherhood

The most common theme running through the relationship dissolution stories of both American and Israeli women in this study was that men were unready for fatherhood. Men's lack of commitment to fatherhood—and ultimately, to the women they presumably loved—usually emerged when women in their late thirties introduced the topic of children. As in Jessica and Gillian's cases above, such fatherhood ambivalence sometimes led to sexual rejection.

For example, Lily, a successful New York curator and the only daughter of a Holocaust survivor, was one of the many women who found herself in such a position. She met her partner—an academic who had just started his tenure-track job—when she was thirty-one. They eventually became engaged for two years. But when Lily brought up her desire to have children at the age of thirty-eight, her fiancé said he was not ready. A year later, Lily decided to go off the birth control pill, and her fiancé refused to have sex with her for the next year and a half. At age forty, Lily finally left, subsequently undertaking egg freezing and multiple rounds of IVF with donor sperm, but to no success. Considering her former fiancé's refusal to become a father, Lily demonstrated remarkable understanding:

He was a professor and an academic, and I don't know if that has anything particularly to do with it, but I think he just couldn't commit, and I wanted to get married and have a kid, and he just couldn't get there in the same time line, and was getting tenure, now has tenure, but you know the life of an academic, a lot of stress and pressure The reality is you always have a monkey on your back It becomes this invasive way of life that sort of permeates your whole existence. Anyway. But maybe that's particular to him. We're still friends.

Another New Yorker, Danielle, was engaged to a man that her therapist called “the almost guy.” Calling him a “straight-up narcissist,” Danielle explained her fiancé’s fear of commitment on multiple levels:

I was in couple’s therapy with him and the therapist is like, “This is the worst kind of man you could ever date. He’s the almost guy. He will almost always commit. He will just keep you stringing along and almost do everything and keep shuffling things around to make it look like it’s happening but it’s really not ever going to happen . . . You need to leave. Log out now . . . He loves you, but this is all he’s capable of. He will never give you a child. He hasn’t slept with you in a year. Like, read the writing on the wall. You need to leave . . .” It was really painful. It was terrible.

Danielle left her fiancé but found cold comfort in being a single woman in her late thirties in Manhattan. She described how she felt:

Yeah, I’m completely overwhelmed . . . But who are you going to blame? You know what I mean? Like, you can’t just victimize yourself . . . because I couldn’t get this relationship to—for lack of a better way of explaining—to work out. So it was like, really awful. Like, I tried everything. Therapy, just nothing, nothing, nothing. And then I said this is the only thing I can control. So, what’s a girl gonna do? I went into it [egg freezing] really upset. It was like not a positive experience, I guess. I don’t know that it’s positive for most people, but I went into it in just a very emotional space . . . crying for five straight days.

An even more tragic story involved Sasha, who experienced an unplanned pregnancy with her California tech industry boyfriend, who then decided that he wanted nothing to do with her and their newborn son. Sasha described his paternal abandonment as follows:

It was shocking [laughing] . . . We’ve now broken up, and no, it did not end up happily. He provides regular child support, but I otherwise don’t have any contact with him . . . He’s really smart. But he has his own personal issues that were hard to deal with. And [now] I have sole legal and physical custody from a court order, and he only has supervised visitations. Again, he’s a really smart guy. He had, like, a perfect SAT score. But it’s just, it’s just not working out for my son. I mean, I look back, my life was totally different. But I try not to dwell too much, because there’s really, you know, there’s really nothing I can do about it, at this point . . . So at my age, I have no idea

when I'm going to get married, or what's happening. [But with egg freezing] I wanted to still have the possibility of having another child.

A different type of refusal to have children was expressed by divorced men who had children from their previous relationships and wanted no more. In Israel, women's encounters with such divorced fathers were frequent. Dana, a thirty-eight-year-old Israeli school teacher, was also divorced but was eager to have a sibling for her young daughter. To her agony, she kept meeting divorced fathers who wanted no more children:

Many divorcés already have two or three kids and they just don't want any more. Not only do they not want more, they don't want to repeat the marital model that they have had before; they don't want to really be in a family setting with children . . . once was enough for them. I actually had a serious relationship with a very good guy; we had a very good relationship but broke up over this issue. He was forty, divorced with three children . . . He's a doctor, he's successful, he's happy and he has great kids, and he didn't feel like he wanted to go through the whole—live together, give birth, take care of the baby. He said, "I can't give you that. I know that's what you'll want, but I don't" . . . I felt, more and more, like I just can't seem to find that [man], and I'll have to decide [on] the sperm bank. So I better have good eggs, or . . . I give up on the idea.

Sigal, a thirty-three-year-old Israeli computer engineer, wept as she described her breakup with her boyfriend Daniel, who was seven years younger:

I believed it would work out together, because like when you love each other, what difference does it make? And I didn't feel the age difference either. Until we reached a point where . . . much as we love each other, I really want children and he doesn't . . . that's when I started to think about the future and then I decided that I wanted to freeze eggs . . . He really wanted to be there and support me . . . At some point I mentioned that I could freeze some of the eggs as embryos. I wanted him so much to want it. But he didn't [blows nose] . . . I was really waiting for him to be ready, and he also felt he needed just a little more time [blows nose]. Eventually, we broke up because I said "Stop. I don't want to wait any longer." . . . To sum it all up: age differences. Timing differences. There were also differences in maturity. That I'm ready, I know what I want, and I'm ready for it. And he isn't.

In the American portion of the study, some women described men's unreadiness as part of the "Peter Pan" syndrome—the men who never grow

up. Several women described themselves as being the “mom” to a “man-child” or a “big kid.” For example, Joanne, a communications director, explained that her partner, George, who was four years younger, was actually pressuring her to get married, but that she saw him as too immature:

I sometimes felt like I was responsible for everything. Like if we went on vacation, I was doing all the booking, I was doing all the planning. And I was wondering, “Wow, if we get married, is it going to be me handling everything?” And I’ve always made like a lot more money than him. And I’m fine with that. But just feeling like in every aspect of the relationship I was in charge. And you know, I’m certainly a feminist, but there’s something weird about feeling like I’m in charge of everything. Like, everything we do I plan. Every time, I’m arranging it. Every interview he gets I’m arranging it for him. I just felt like he’s super passive in life, in general, and it just used to drive me crazy.

Joanne finally broke up with George and immediately turned to egg freezing:

In a few years I’ll be forty. I’m one of those women that everybody dreads being, kind of the single woman that everybody talks about . . . in this almost sorry-for-them kind of way. I hate the idea. I mean, everybody does, but [I] fucking hate the idea of somebody talking about me that way, which some people do. Like, “Oh, poor Joanne, she just broke up with George.” It’s just, ugh. The idea of being pitied is just the worst, right? I think for me, I can’t say enough [about egg freezing] It made me feel like you know what? I can have the type of life I want. That’s a possibility for me. I’m not in the danger zone. I can kind of create life on my own terms. And that’s for me what it’s done.

Similarly, Sharon, a highly educated Israeli intellectual, was still scarred by her ex-boyfriend’s termination of their relationship after seven years together. Propelled by the breakup, Sharon decided to educate the women around her about what she viewed as “society’s distortion of women’s consciousness.” As she explained, “They teach us that we should delay pregnancy and get education and jobs, and tell us that conception is possible at any age. This is men’s thinking, not women’s!” At the age of thirty-three, Sharon organized a group of single and separated women, all of whom underwent egg freezing together. Sharon seemed elated when she recalled this communal healing experience:

It's beyond preserving your fertility . . . it was empowering, as in, "I can take responsibility, I don't need to wait for a man to start my life! I'm allowed to be different." . . . That's the most significant change. Let's be honest: I'm not normal anymore That treatment helped me accept the fact and that I need to find alternative solutions . . . maybe raise children alone, or in an alternative family structure, maybe with my girlfriends or with a gay couple, and not with a man. I don't know if I'll do it, but I give these ideas legitimacy.

Conclusion—Egg Freezing at the End of Romance and Beyond

Sharon's comments speak clearly to the new possibilities and alternative trajectories that egg freezing may afford women as they emerge from the major life disruption that relationship dissolution often entails. Many women spoke of the "empowerment" and the "peace of mind" that they felt by having frozen their eggs—doing something "for themselves" and "for the future" at a difficult life juncture. Egg freezing also "took the pressure off," especially time pressure, so that women did not feel compelled to begin searching for a new partner immediately or ever. Women in this study were very reluctant to "repeat the same mistake" by "rushing into" another unstable relationship. In this regard, egg freezing provided women with a biological, emotional, and relational reprieve during a difficult time in which the future needed rethinking and recalibration.

Egg freezing also provided some measure of "control" when women's relationships had spun out of control. Indeed, taking back control from "controlling" men—particularly those who had intentionally depleted women's reproductive reserves by stringing them along for years or unnecessarily drawing out divorce proceedings—was one of the ways in which egg freezing served as a tool of recovery. In fact, three American women in this study fought hard for egg freezing to be paid for by their difficult ex-husbands; all three won their egg freezing settlements, awarded by sympathetic male judges. Although most women in this study realized that egg freezing, even if hard-won, could provide no "guarantee" of future motherhood, it was an important sign of women's proactive initiative—and a way of asserting independence from men who had sometimes vindictively thwarted these women's motherhood aspirations.

As suggested by Sharon's comments above, the most interesting outcome of egg freezing was in pointing an alternative way forward. Several women in this study in both the United States and Israel opted to make

embryos out of their frozen eggs using donor sperm. At the time of the interview, one of these women had gone on to become the single mother of a baby daughter. Another woman was contemplating co-raising a child with her sisters; still another was contemplating doing so with her best male friend.

Finally, in this study on relationship dissolution as heard through women's voices, it is important to emphasize that not all men are contemptible louts. More than one-fifth of the women who shared their breakup stories with us had already moved onto their next relationships, and three of them had become mothers. Although egg freezing for these women had been undertaken at a time of despair, these women did go on to repair their disrupted life courses, by finding love with good men, and in some cases, bearing the children of their dreams.

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Notes

1. Although some women expressed a willingness to have their names used in future research articles and reports, our practice has been to use pseudonyms and to remove any identifying details particular to a given woman. In anthropology,

including medical anthropology, individuals' stories are typically presented in ethnographic books and articles, per the person-centered approach of the field. However, pseudonyms are almost always used, except when figures are public. In this article, we have followed the common practice of using pseudonyms and avoiding any identifying information.

2. We did not gather precise data on the length of time between relationship break-ups and egg freezing procedures. Egg freezing was fairly new at the time of our study (2014-2016) and thus had become available recently for most women in the study. Our sense is that the majority of women pursued egg freezing within a year of a breakup.

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