

“It Happened One Night”: The Sexual Context of Fertility Decision-Making

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“.... a Martian landing in the room would have no inkling that what we were speaking about [i.e. fertility] had anything to do with human sexuality!” (McDaniel 1996:86)

“A visiting anthropologist would find it necessary to read Demography rather thoroughly in order to find a precise answer to the question, ‘Where do babies come from?’ Nearly half the articles published between 1964 and 1992 concern either fertility and contraception or marriage and family, but in articles about married women, a birth appears to result from an immaculate conception.” (Watkins 1993:559)

Introduction

Despite concern with sex-related topics, such as fertility and family life, demographers have rarely addressed sex¹ in their research and theorizing (McDaniel 1996; Watkins 1993). One of the primary goals of fertility demographers, historically, has been to minimize unintended pregnancy (Hodgson 1991), but this goal is unattainable if we do not try to untangle the sexual context in which children are conceived. Although there are rare instances when people acquire children without intercourse (e.g. through in-vitro fertilization or adoption), the vast majority of children are not, as Watkins (1993:559) sarcastically noted, immaculate conceptions. Demographers have primarily theorized sex as a “proximate determinant” of fertility via “coital frequency” (Bongaarts 1978). While sex clearly does occupy this role, I wish to demonstrate also that sex directly and indirectly influences every stage of fertility decision-making in ways which extend far beyond the frequency with which people have intercourse. As a complex social, emotional, and biological interaction, people engage in sexual activity for many reasons other than the conception of children; regardless of the original motivations for

sexual behavior, however, conceptions often result. When we do not acknowledge the many roles that sex plays in fertility processes, our research suffers theoretically and empirically, as I attempt to show. While many demographers have assumed that fertility desires are the motivating factor for subsequent behavior, i.e. that people first decide to have a child and then take appropriate sexual and (non-contraceptive) action in order to conceive one, I argue that a more reasonable assumption is that desires relating to sexual expression are more frequently the motivating factor for subsequent fertility behavior.

In order to better understand the influence of sex on fertility processes, I begin with a history of the treatment of sex by demographers. Next, I consider demographers' treatment of (fertility) decision-making, and build on this literature to construct a simple model of "active" and "passive" decision-making. Then I continue to draw on the literature on fertility decision-making to draw out what I call the "child-focused perspective," which seems to be the standard theoretical perspective for fertility demographers. I discuss some of the advantages and disadvantages of this child-focused framework, and then construct a "sex-focused" perspective and framework in response to the limitations of the child-focused perspective. I do not wish to argue that these child-focused and sex-focused perspectives are competing. Each is in fact necessary to answer certain kinds of research questions, and I try to explain which kinds of research questions are appropriate for each. However, I do advocate the sex-focused perspective as the more empirically and intuitively appealing *default*². The sex-focused perspective is developed with specific reference to empirical work on the United States, but the major underlying theoretical idea—that the sexual context influences every stage of fertility decision-making, although its influence on the final decision of how to resolve a pregnancy may

be indirect—is relevant universally. As I elaborate my framework, I highlight areas which could benefit from further scholarly exploration using the sex-focused perspective.

Literature review: A brief history of sex in demographic areas of interest

Before discussing new approaches to understanding the relationship between sex and fertility processes, it is first necessary to explore how demographers have traditionally approached this relationship. As indicated above, several prominent demographers have noted the general failure of demography as a discipline to acknowledge theoretically or empirically the relationship between sex and fertility (e.g. Watkins 1993; McDaniel 1996). While this failure has by no means been absolute, as we will see, the most influential demographic theories of fertility have generally granted a relatively slight role to the importance of sex in fertility processes. When demographers have acknowledged the role of sex in fertility processes, they have typically emphasized the biological role of sex—using terms like “coital frequency” or “sexual exposure,” rather than its social roles. Sex is an inherently social process, in that it requires at least two people in order to occur, and its sociality is complicated by an array of norms which dictate the appropriate context and scripts for sexual activity. Sex within the context of marriage, for example, has an entirely different social script compared with sex as an explicitly commercial transaction. In addition, sex has diverse social meanings and serves many social functions which are mostly independent of its implications for fertility, including as an expression of love and intimacy (Giddens 1992). Sex and sexual expression affect a person’s relationships with significant others—including family,

friends, co-workers, and, of course, lovers—and are closely linked to conceptions of self and identity (Williams and Stein 2002). Due to these major social implications, sexual activity and interactions are typically governed by a stringent set of social norms and taboos which often prevent partners from open communication about their fertility and contraceptive preferences (Gómez and Marín 1996). Thus people's sexual behavior is guided by many social concerns other than their fertility goals, and the social context of sexual interactions can explicitly interfere with the achievement of fertility goals.

Macro-level theorists of fertility have generally acknowledged the biological role of sex in their theories. Beginning with Davis and Blake's (1956) analytical framework for understanding the relationship between social structure and fertility, we see that sex is granted an apparently prominent role in their model. Their framework aims to explain differences between societies in their Total Fertility Rates (TFR), and their macro-level focus means that theirs is a framework for analyzing fertility rates, rather than fertility decision-making. They give eleven socio-biological factors to account for different fertility rates between societies. Over half of the factors given in their framework are listed as "factors affecting exposure to intercourse," including age at sexual initiation, frequency of intercourse, and average reproductive life spent in a sexual union (1956:212). Their framework does not deal with the ways that sex as a social act may play a role in fertility processes, but instead emphasizes a more biological approach, viewing sex as primarily influencing fertility behavior through exposure. Bongaarts (1978) modified Davis and Blake's (1956) framework to create his own framework for examining the proximate determinants of fertility, also seeking to explain TFR differences between societies. Bongaarts compressed Davis and Blake's six factors

affecting sexual exposure to a single factor of “coital frequency,” giving it as one factor among eight for understanding different fertility rates.

While macro-level theorists have acknowledged the biological role of sex in differentiating fertility rates between societies, theorists looking at decision-making have typically ignored sex almost completely. Becker’s (1960) framework for understanding fertility decision-making introduced the New Home Economics theory to demographers. His theory seeks to address the relationship between income and fertility, with others (Willis 1974) eventually applying the theory to the relationship between fertility and women’s labor force participation. Becker suggests that children can be understood as “consumer durables,” in that they provide positive “utility” for their parent(s). Consequently, Becker argues that parents weigh the utility they may receive from children versus the utility they might receive from other “goods” in deciding how many children to have. The theory thus assumes that conscious fertility desires are the primary motivation for subsequent fertility behavior. It has become one of the most influential demographic theories (Lee and Casterline 1996), in part because it attempts to address both macro-level and micro-level relationships. That is, Becker’s theory argues that the same social phenomena—essentially economic interest—predict the trends of both societies and individual couples, and his original paper (1960) used examples from both. While Becker addresses the increasing importance of contraception in fertility outcomes, sex is absent from his theory. Becker implies that all births are deliberately calculated in his framework, even going so far as to argue that, “No children are unplanned in terms of the contraceptive knowledge and techniques actually known” (1960:216).

Following Becker (1960), Friedman, Hechter, and Kanazawa's (1994) theory of the value of children argues that a key utility that children provide is to reduce uncertainty in their parents' lives. Thus, like Becker, they assume that fertility preferences motivate behavior (although they provide some insight into what might motivate fertility preferences). Their framework gives "chance" (i.e. exposure to sexual intercourse) as one factor among four influencing the fertility differences between couples. This formulation is problematic because exposure to intercourse is not randomly distributed in the population, but is reasonably predictable based on factors such as relationship status and age (Mosher, Chandra, and Jones 2005). In summary, then, fertility demographers' theoretical treatment of sex until the mid-1990's has focused on sex as a biological factor influencing fertility at the macro-level and rarely acknowledged it as either a biological or a social factor when analyzing fertility decision-making.

The mid-1990's produced some major challenges from feminist demographers (e.g. Watkins 1993; McDaniel 1996; Greenhalgh 1996; Riley 1999) and anthropologists (e.g. Hammel 1990; Bledsoe and Cohen 1993) which have led to gradual changes in the approach contemporary theorists are taking to the relationship between sex and fertility. Although fertility theorists have continued to pay less attention to the way sex influences fertility decision-making for adults in developed countries, several theorists have explored the relationship between sex and fertility for adolescents in developing countries. Gage (1998) argues that adolescents in developing countries frequently become pregnant unintentionally because they are swept away by a complex set of norms about sexuality, in addition to material constraints, which do not always easily permit

them to use contraception, even when they want to. She argues, as do I, that the sexual decision-making process is integrally related to the contraceptive decision-making process. Similarly, Johnson-Hanks (2006), looking at adolescent girls in Cameroon, argues that pregnancy is rarely a calculated event for these young women. Instead, it is frequently the result of a series of sexual and contraceptive decisions which are powerfully constrained by norms and culture. In this paper, I seek to take many of these insights from the more limited context of adolescents in developing countries and reveal how they may be applied to adults—even married adults—in developed countries as well.

In addition to looking at adolescents in developing countries, adolescents' initial sexual encounters in the US have been the subject of many studies conducted by sociologists concerning the relationship between sexual decision-making, contraceptive use, sexually transmitted infections (STIs), and unintended pregnancy. Carpenter (2005) gathered qualitative accounts of subjectively-defined "virginity loss" experiences, finding that a key determinant of contraceptive use at first sex was the individual's metaphorical understanding of virginity which powerfully interacted with the person's relationship context in which they lost their virginity³. Also using qualitative interviews, Michels et al. (2005) focused on suburban White ninth-graders, and found that they were terrified by the prospect of pregnancy, relatively unaffected by the prospect of disease, and that the threat of certain stigmas (being labeled a "slut") or "getting caught" (typically by parents) were major factors in the sexual decision-making process; depending on the individual's interpretation of their social context, these factors combined to produce different outcomes in contraceptive use. Supporting these qualitative findings is Manning, Longmore, and Giordano's (2000) evidence from the 1995 National Survey of Family

Growth that adolescent girls who had just met their partners were 66% less likely than those going steady to use contraception at first intercourse. All of these studies indicate that the social and personal sexual context of relationships for adolescents, at least, is a major factor in determining their likelihood of using contraception, which in turn affects the likelihood of their becoming pregnant. Pervading these studies is the implication that the importance of the sexual context for contraceptive decision-making is somehow unique to adolescents' first intercourse. While the sexual context undoubtedly *is* important for adolescents' contraceptive and fertility decision-making, I think we can apply these insights to contraceptive and fertility decision-making among adults as well.

In addition to intellectual shifts within demography itself, the impending crisis of the HIV/AIDS epidemic around the world has contributed to social scientists (many outside of mainstream demography) becoming increasingly interested in the process of sexual decision-making as it relates to condom use since the early 1990's. Some of these works have called into question a model of contraceptive decision-making which depends on rational calculus and ignores many deep-seated cultural beliefs about sex which actively discourage "rational" and "calculated" action (Carrillo 2002; Campbell 2003). These social beliefs often contend that individuals should be "swept away" by "passion," and imbue condom use with a host of complex social meanings, almost all of which contradict this ideal of passion (Carrillo 2002). Obtaining contraception in anticipation of a sexual encounter and negotiating contraception with a partner violate these ideals of passion, and condom use in particular interferes with enjoying the "heat of the moment" (Free, Ogden, and Lee 2005). Others have argued that the choice to engage in "risky" sex (sex without condoms) may in fact *be* the product of rational calculus in many

circumstances (Pinkerton and Abramson 1992). That is, individuals may weigh the “utility” of sex without condoms against the perceived probability of contracting an STI, and conclude that the positive utility of unprotected intercourse is greater. While this literature is often not explicitly tied to pregnancy and childbearing, its insights on sexual and contraceptive decision-making are highly relevant to the ultimate consequence of conception, as I will discuss at greater length below.

“Active” and “passive” decision-making

Relying as they do on a particular type of rational-choice theory, the major influential theories of demographers like Becker (1960) and Friedman, Hechter, and Kanazawa (1994) make the key assumption that decision-makers are (and perceive themselves to be) reasonably well-informed about their options, and that they behave in accordance with their knowledge and desires. I refer to this type of decision-making, in an ideal type, as “active” decision-making. Yet as recent qualitative evidence from researchers like Carrillo (2002) and Johnson-Hanks (2006) suggests, decision-making pertaining to fertility is often not so carefully planned and calculated. In fact, individuals in these accounts often describe themselves as simply “going with the flow,” and admit that they have not seriously considered the consequences of their actions, even when they knew what those consequences were. I refer to this type of decision-making as “passive⁴” and suggest that rather than representing the decision-making style of only a few individuals, this type of decision-making is actually quite common when considering fertility-related behavior. Many cultural beliefs about passion, romance, and gender roles

encourage passive decision-making for individuals facing a potential sexual encounter, resulting in less active fertility decision-making overall.

The sexual context of fertility decision-making complicates this simple active-passive dichotomy, because not only do individuals make decisions, but couples typically make decisions together as well (even if they are passive together) (Manning, Longmore, and Giordano 2000). In the (hetero)sexual context, at least, fertility decision-making *never happens alone*⁵. There are always at least two people, a man and a woman, who must make decisions. Both could be active decision-makers, both could be passive, or one could be passive and the other active. Even if both are active decision-makers, they may not agree with one another, and some sort of negotiation must take place. Because they do not generally take into account the couple dynamics inherent in fertility decision-making, traditional influential demographic models imply that couples generally have the same fertility preferences. Yet the evidence of scholars who have recently begun to study couples strongly contradicts this assumption (Becker 1996). Stewart (2003), who looked at the influence of partner's stepchildren on individual's fertility preferences in the US, suggests that couples often disagree about their own fertility preferences, but that individuals are strongly influenced by their partners. Because they can disagree with one another, the ultimate decision-maker is the individual, but the individual is influenced by his or her partner(s). Dodoo and Tempenis (2002), working in Kenya, likewise found that not only did couples disagree about fertility preferences, but gendered power differences often determined whose preferences were actualized. Thus we see that fertility decision-making is both an independent and an interdependent process.

The “child-focused” perspective

In keeping with their treatment of fertility decision-making as a largely active process, the major influential demographic models discussed earlier have tended to understand fertility decision-making as a fundamentally goal-oriented process—with the ultimate goal of having a child. Though willing to acknowledge the influence of biology, models such as Becker’s assume that individuals actively set out to have a child and then have sex in order to conceive one, or always successfully use contraception in order to keep from conceiving one. Sexual behavior is thus motivated by and adapted to match fertility preferences. I refer to this orientation as a “child-focused” perspective, and in keeping with Becker’s prevalence in the literature, it has dominated most fertility studies in the past forty years. It is an intuitively appealing perspective for looking at gay and lesbian individuals, people who do not have sexual partners but definitely want a child in the very near future (1-3 years), and people who have experienced problems with infertility. People in these groups will not acquire a child (either through adoption or conception) without special effort and planning; rather, they must adapt their behavior in order to match their fertility goals. When looking at any of these groups, this “child-focused” perspective is a reasonable default perspective because people in these groups cannot “accidentally” have a child: they must actively decide to have one.

However, it should be clear from the descriptions above that many fecund individuals do not intuitively fall under the purview of this child-focused perspective, though it has been applied to the study of nearly all individuals. In particular, this perspective is not intuitively applicable to fecund sexually active heterosexuals, because

of the high rate of unintended pregnancy experienced in this population. In the United States, 49% of pregnancies were unintended in 2002, and this rate has practically remained unchanged since 1995⁶ (Finer and Henshaw 2006). Although the precise concept of “unintended pregnancy” has been subject to considerable academic scrutiny (Trussell, Vaughan, and Stanford 1999; Santelli et al. 2003; Pulley et al. 2002; Fischer et al. 1999; Barrett and Wellings 2002), with most authors implying that figures such as Finer and Henshaw’s overestimate the “real” extent of unintended pregnancy, the mere existence of this debate suggests that the potential theoretical understanding posed by the child-focused perspective is incomplete. The child-focused perspective leaves us with the impression that virtually all pregnancies are deliberate with a few exceptions, and intentional pregnancies are given the unmarked or “residual” position, as Trussell, Vaughan, and Stanford (1999:246) point out.

In fact, as this debate indicates, the reality of birth planning is far more complex than the child-focused perspective easily acknowledges. First, by disregarding the potential for disagreement between individuals in a couple, the child-focused perspective assumes that couples always agree about their fertility intentions; yet in reality we know that they often disagree, both about the timing and ultimately ideal number of births (Stewart 2002; Thomson 1997; Thomson, McDonald, and Bumpass 1990). Second, there are many ambiguities in the fertility decision-making process—uncertainty about partners, partners’ preferences, contraception, abortion, the timing of births, whether or not to have more children—which the child-focused perspective disregards. Finally, people’s education about and access to fertility control options may be severely limited. These many uncertainties mean that even when individuals and couples are certain about

their preferences and agree on them—which they often do not, they may not be able to act upon them. A sophisticated theoretical framework for analyzing fertility decision-making must be able to account for these uncertainties.

The empirical evidence therefore suggests that the child-focused perspective perhaps accounts for a slight majority of pregnancies, but it does so at serious theoretical cost. Not only does it fail to acknowledge the ambiguities in the fertility decision-making process, it also makes the major theoretical assumption that people must *take action* in order to have a child⁷. This assumption makes it a poor candidate for a default model for analyzing fertility in any society where the majority of fecund adults are heterosexually active—which is, presumably, all societies. From a theoretical perspective, this assumption is inherently flawed because pregnancy is the *default* outcome of regular heterosexual intercourse, and action must generally be taken to *prevent* it. Thus while a child-focused perspective is necessary for analyzing certain segments of the population, I suggest another perspective as the default for fertility theorizing which is sex-focused rather than child-focused, and which allows for greater complexities in understanding fertility decision-making.

The sex-focused perspective

In contrast to the child-focused perspective, the sex-focused perspective assumes that the primary motivation for people's fertility behavior is not the conscious desire for children, but rather the conscious desire for sex. This perspective acknowledges that people often have sex, even though they may not be able to articulate their fertility

preferences; indeed, fertility (and disease prevention too) may not enter into their thoughts much at all as they prepare for and engage in sexual encounters. The goal of these encounters may be many things—such as pleasure, intimacy, demonstrating love, or obtaining money and protection—which can be distantly removed from the prospect of conception and childbearing. Yet these encounters are as likely to result in a conception as one in which the couple both agreed that they want a child now and set out to have one.

The social negotiations involved in sexual encounters can interfere with people's ability to actively consider the fertility consequences of their actions, and can make it difficult to actively negotiate their contraceptive preferences with their partners. Qualitative accounts, such as those documented by Carrillo (2002), Carpenter (2005), and Free, Ogden, and Lee (2005), suggest that many social norms work against people's ability to actively engage in contraceptive negotiations with their partners. These norms include ideas of "decency," which discussing sex, contraception, and fertility preferences can violate, in addition to expectations of romance and physical and emotional pleasure. By defying these norms, participants feel they risk the sexual encounter not reaching a satisfactory conclusion (Carrillo 2002). These norms vary based on context, since the social negotiations required to gain sexual access to a sex worker are almost universally different from those required to gain sexual access to a spouse. Regardless of the context, in order for both partners to clearly prevent a conception occurring⁸, some kind of negotiation, whether verbal or non-verbal, involving contraception must take place. Studies of American popular culture strongly suggest that contraception has not yet become part of the cultural sexual script (Bledsoe 1996; Guaneskara, Chapman, and

Campbell 2005). The sum of this evidence suggests that negotiating contraception is profoundly awkward in many sexual encounters, which decreases the likelihood that people will be able to use contraception, even when they have clearly formulated fertility and contraceptive preferences. Moreover, the strict scripts regulating sexual encounters do not facilitate discussions of fertility preferences, even though pregnancy could result from any sexual encounter involving penile-vaginal intercourse.

In addition to these strong social influences shaping the sexual context of fertility decision-making, we must also remember that the desire for sex—like hunger and thirst—is a basic biological drive (Levine 2003). Though society has strong normative sanctions about all of these drives, it can only go so far in molding their expression. Experimental evidence from Ariely and Loewenstein (2005) indicates that in heterosexual men, sexual arousal decreases the appeal of condoms. Moreover, unaroused men in their experiment were not good at predicting how appealing they would find condoms when they were aroused. Their findings suggest that the contraceptive decisions that people make when unaroused may differ considerably from the decisions they make when they are faced with an actual sexual encounter. Therefore, the immediate desire for sexual gratification may take precedence over long-term fertility preferences. Consequently, the biological influence of sex on fertility and contraceptive decision-making extends beyond “coital frequency” as commonly used by demographers.

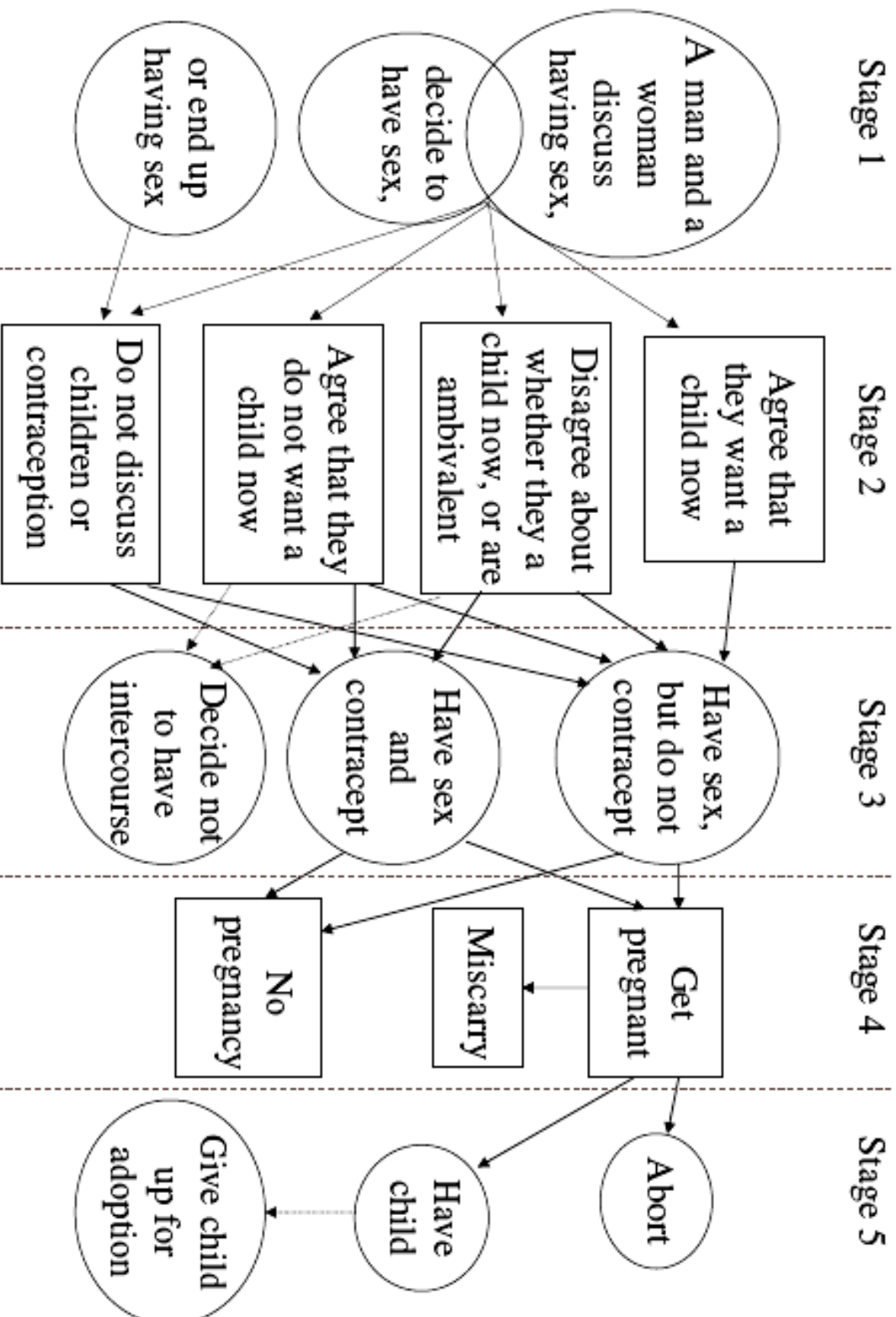
Thus the sex-focused perspective acknowledges that fertility outcomes are often the result of the contraceptive decisions and negotiations that are made in social and biological moments of passion. Constrained by sexual scripts and biological imperatives, individuals may be unable to manifest their fertility preferences through “appropriate”

contraceptive use. Moreover, when a pregnancy does result, the decisions a fetus' parents make about its future may be shaped by the status of their own sexual and romantic relationship. One of the vagaries of human reproduction is that sexual encounters are almost always at least a month removed from the discovery of pregnancy, and are frequently further removed still. Couple relationships may have changed considerably between the sexual encounter resulting in a conception, and the time of pregnancy discovery—and they may change further after the discovery of pregnancy (Edin, Kefalas, and Reed 2004). Consequently, the sexual context influences every stage of the fertility decision-making process, although its influence on the ultimate decision about how to resolve a pregnancy may be relatively indirect.

Sex-focused paths to pregnancy

In order to better illustrate this sex-focused perspective, I construct a five-stage sex-focused model (shown in Figure 1). This model shows the paths to pregnancy for fecund individuals in heterosexual relationships. Two assumptions that are built into this model are that couples have a preference for not using contraception⁹, and that contraceptive decisions are primarily based on fertility preferences¹⁰, as opposed to fears about disease or purely medical concerns. The model's applicability depends on the degree to which these assumptions are met in the social context in which it is used. We can examine this model in terms of the stages and in terms of the individual pathways, but I will begin by explaining the model in terms of the stages.

Fig. 1 Sex-Focused Paths to Pregnancy



Stage 1 is the sexual decision-making stage, in which a couple discusses having sex and/or decides to have sex, or ends up having sex. The first two options are not mutually exclusive, which is why they are illustrated as overlapping; these types of decisions represent “active” couple-level decisions, as discussed earlier. A couple that “ends up” having sex, on the other hand, is conceptualized as not having really discussed or communicated¹¹ about sex at any length beforehand, indicating “passive” couple-level decisions. Stage 2 is the first fertility decision-making stage, in which couples have the option of discussing their fertility preferences. They can agree that they want a child now, agree that they do not want a child now, disagree or be ambivalent about whether they want a child now (all active decisions), or not discuss their fertility preferences (a passive decision). These options are derived from Hass’ (1974) framework for understanding pregnancy intendedness. Stage 3 is the contraceptive decision-making stage, in which people can use contraception, not use contraception, or decide not to have intercourse (presumably as a contraceptive strategy). Behavior is allowed to proceed congruently from the previous decisions (e.g. people can agree that they do not want a child and thus contracept), and behavior is allowed to proceed incongruously (e.g. people who agree they do not want a child nevertheless can decide not to contracept). Stage 4 is a biological stage in which no decisions can be made. Couples either get pregnant or not; if they do get pregnant, they can miscarry¹². Stage 5 is only relevant for individuals and couples who become pregnant: it is the second fertility decision-making stage. At this point, individuals and couples must decide what to do with a pregnancy if one occurs. They can abort the pregnancy, have a child and keep it, or have a child and give it up for adoption.

In addition to looking at this framework in terms of its stages, we can also consider it in terms of the different paths. The first point of divergence occurs depending on whether the couple has discussed having sex or not. For couples that “end up” having sex—the most passive pathway in terms of our active/passive decision-making dichotomy, Stage 1 collapses all the way into Stage 3, at which point the couple either uses or does not use contraception without having actively negotiated it. We should note that in terms of scripts portrayed in popular culture, *this path is portrayed as the iconic sexual script* (Gunasekera, Chapman, and Campbell 2005), even though it is probably not the most common path in real life. This path is also one of the major contributions of this model, since most “decision-making” models assume active decision-making throughout. For couples who do actively negotiate sex, they have the option of discussing their fertility preferences in Stage 2 (or not). If they agree that they want a child now, then the framework only gives them the option of having sex without contracepting because of the assumption that people have a preference for not contracepting. For the other three outcomes (agreeing they want a child now, agreeing that they do not want a child now, or disagreeing about whether they want a child now), having sex with or without contraception are both options. Couples that agree that they do not want a child now or disagree about whether they want a child also have the option in Stage 3 of deciding not to have intercourse. In Stage 4, both pregnancy and no pregnancy are possible outcomes for all individuals having sex, regardless of their contraceptive practices—thus accounting for the possibility of “contraceptive failures”¹³. In Stage 5, only individuals who have become pregnant have to decide what to do with the pregnancy (abort it, keep it, or give up the child for adoption). However, we should notice that just as pregnancy is

the default outcome for intercourse, childbirth is the default outcome of a pregnancy, so *passive decision-making results in a birth.*

We can use this framework to highlight major theoretical and empirical questions which deserve greater attention in the demographic literature. In particular, we need to look in greater depth at the movement from one stage to the next. For instance, we need theories which explain the movement from Stage 1 to Stage 2: what circumstances will make couples more or less likely to discuss their fertility desires and preferences with one another before engaging in intercourse, even if those desires are not clearly formulated? We also need theories that articulate the movement from Stage 2 to Stage 3: when are couples most likely to match their contraceptive behavior to their clearly formulated fertility desires? And, similarly, we need more theories about how couples use contraceptives when their fertility desires are uncertain or unknown. Another rich area for theoretical exploration is the movement from Stage 4 to Stage 5: how do women and couples decide what to do with a pregnancy, especially when it is unintended? Many new research questions like these become available to us when we do not assume that the desire for children motivates the entire fertility process.

This model has several major benefits. First, and most importantly, it corrects for a consistent failing in demographic literature by theorizing the importance of sex in fertility decision-making. Second, this framework *does not* assume that fertility desires are always clearly formulated. The child-focused perspective essentially requires every person to know at any point in time whether s/he wants to have a child in the next year or not. Yet our actual data indicate that fertility preferences are often not well-defined in individuals, and certainly not in couples (Schoen et al. 1999; Quesnel-Vallee and Morgan

2003). Thus having a framework which does not require people to have clearly formulated their fertility preferences presents a more accurate picture of reality than one which does. Third, this framework does not assume that even when fertility desires are known that they are perfectly correlated with behavior. Given that just slightly over half of unintended pregnancies occurred in months where no contraception was used (Finer and Henshaw 2006), we can infer that contraceptive behavior is not solely the product of fertility preferences. Fourth, this framework acknowledges that due to the sexual context of fertility and contraceptive decision-making, these decisions are always at least partially couple-level decisions. In future work, I intend to further explore the ways in which the dyadic sexual context influences contraceptive outcomes. And finally, this framework makes the tenable assumption that people generally have to take action *not* to get pregnant, rather than the assumption that they have to take action *in order* to get pregnant.

Many socio-cultural conditions affect the component parts and outcomes of this model, including knowledge about and access to contraception, empowerment to act on fertility preferences (including gender-equity in decision-making), empowerment to act on sexual partner choice, and the extent to which sexual activity, marriage, and childbearing are culturally distinct processes. No matter how the specific circumstances change, the sexual context generally sets the stage for subsequent fertility decision-making. However, one factor that affects the workings of this model deserves special consideration: variation in relationship context.

As given, this model most readily explains the fertility-related behavior of people in initial sexual encounters and “one night stands,” because it pretends for simplicity’s

sake that couples have never had an opportunity to discuss sex or their fertility desires until they actually reach a sexual encounter. Even in relationships where people have not known each other very long, the numbering in Stages 1 and 2 is really only for convenience—the two stages can easily be switched, and they can be separated by hours or even weeks. However, in the context of long-term relationships, people are unlikely to constantly re-negotiate their contraceptive and fertility preferences with every sexual encounter, and for couples who never discussed these issues in the first place, they are probably unlikely to do so in the future. For long-term relationships, then, we can replace Stages 1 and 2 with “previous sexual experience with this partner.” After the first month or so in a relationship, this theory argues that the best predictor (though certainly not the only one) of future contraceptive behavior in a given relationship is the contraceptive behavior in the most recent sexual encounter. Thus, for instance, if a couple used contraceptive pills in their last sexual encounter, they are likely to use contraceptive pills in their next encounter. Similarly, if they have not previously used contraception at all, they are unlikely to begin to do so. In part because fertility preferences are relatively stable over the short-term (one to two years) (Rindfuss, Morgan, and Swicegood 1988), couples do not need to constantly discuss and re-negotiate their contraceptive practices unless there is some major source of conflict. On the other hand, one of the most interesting qualitative research pursuits in this area is looking at when and how long-term couples engage in re-negotiation of contraceptive and fertility preferences, but this framework does not address that question.

Using this framework gives us theoretical insight into why certain contraceptive methods are easier or more difficult for couples to use. Non-hormonal contraceptive

methods, such as condoms, spermicide, and withdrawal, require some kind of verbal or non-verbal couple negotiation with every sexual encounter. These negotiations make it more difficult for couples to regularly use these methods compared to hormonal methods, such as the Pill and injectable methods, which can be completely removed from the sexual context and couple negotiations. Without any discussion or negotiation, a man will not know that his female partner is using hormonal contraception, but these methods do make it possible for couples to end up having sex without discussing fertility or contraception and still use contraception. Because a doctor's visit and a prescription are generally required to use these methods, employing these methods by the time of a first sexual encounter in a relationship requires a woman (or couple) to predict in advance that intercourse is likely in a given time frame, which is often difficult. All contraceptive methods must be readily available in order to be used and still preserve the valued spontaneity of sexual interactions (Free, Ogden, and Lee 2005). Consequently, this framework also illustrates the reason that emergency contraception is such an important innovation: it allows women and couples whose contraceptive behavior was not in agreement with their fertility preferences in a particular sexual encounter, in effect, to go back in time and change their minds (Conard 2004). The framework shows that some degree of forethought and/or discussion before a sexual encounter is required in order for both partners to deliberately use most forms of contraception, but emergency contraception does not require either.

The sex-focused model and unintended pregnancy

I developed this sex-focused model based on my interest in better understanding unintended pregnancy, and I argue that it can help us better understand this and other fertility-related issues. First, it allows us to understand how and why unintended pregnancies happen—and happen so frequently, which a child-focused perspective does not. The sex-focused model explains how people may become absorbed by concerns about partners, sexual desire, and sexual expression such that they are unable to use contraception in every sexual encounter; alternatively, contraceptives may not work properly. By precisely delineating the mechanisms through which unintended pregnancy might occur, this theoretical perspective will make us better able to develop effective programs to prevent it.

Second, this framework helps us understand why defining unintended pregnancy can be so difficult (Trussell, Vaughan, and Stanford 1999; Santelli et al. 2003; Pulley et al. 2002; Fischer et al. 1999; Barrett and Wellings 2002). Some paths in the model clearly result in an intentional pregnancy: any path ending in pregnancy which goes through Stage 2's "agree that they want a child now" definitely shows an intended pregnancy. Similarly, some paths clearly result in an unintended pregnancy: any path ending in pregnancy which goes through Stage 3's "have sex and contracept" is definitely an unintended pregnancy. However, there are numerous ambiguous paths. We cannot say with certainty that a couple who has sex and does not contracept (Stage 3) without discussing their fertility preferences, or after agreeing that they do not want a child now, or after disagreeing about whether they want a child now (all in Stage 2) has experienced an unintended pregnancy—nor can we say that they have not experienced one. The individuals involved might have felt quite clearly one way or another, but their actions

may not match their formulated sentiments. Trying to reach a better understanding of these ambiguous cases is one of our richest areas for further research. Greater knowledge about these ambiguous cases would promote our comprehension of the social reality of contraceptive decision-making; it would also be helpful for more applied purposes, since these individuals and couples are the ones whom contraceptive intervention programs can most effectively target.

Conclusion

Although not every pregnancy is an “accident,” not every pregnancy is carefully planned either—in the contemporary US, the proportion is about half and half, and many accidental pregnancies are carried to term and kept. This division leaves demographers in a quandary: should we assume as our default perspective that most pregnancies are planned, or should we assume that most are unplanned? The answer, ultimately, I think, is that this is the wrong question. Rather than looking for artificial dichotomies of un/planned pregnancies, we need to adopt a theoretical perspective which acknowledges the wide array of ambiguities we know exist in real life regarding fertility decision-making. In order to do so, we have to take a few steps back and look at the context in which fertility decisions are first enacted: the sexual context. Fertility decisions are rarely made by individuals (women or men) in a social vacuum. Instead, these decisions happen in the context of couples, who must accomplish the task of negotiating their sexual desires, their contraceptive preferences, and their fertility preferences all at the same time; and then, if a pregnancy results, they must either re-negotiate or continue to

negotiate their fertility preferences. We should not be surprised if one of these desires (sexual, contraceptive, or fertility) is often accomplished at the expense of one or two others, especially since the sexual desires generally come first.

Certain segments of the population do have to make a special effort to get pregnant. But for the vast majority of heterosexually active and fecund people, the effort required is to prevent pregnancy, not achieve it. Consequently, I have offered a sex-focused perspective to acknowledge this basic social fact, and a slightly more constraining model to illustrate it. This model is only a starting point for the development of more theorizing about the importance of sex and relationships in the context of fertility, because no two-dimensional diagram can ever encompass the complex reality of fertility decision-making. While I realize that this model is limited in its scope, I hope that its limitations will not prevent its underlying foundation from remaining clear: sex is a highly complicated social process, and virtually all pregnancies and births are the product of it; our research will be disconnected from social reality in direct proportion to our failure to acknowledge this relationship.

Notes

¹ In referring to “sex,” I am referring to sexual activity, not the biological sex of persons. Because my theoretical perspectives address pregnancy resulting from “natural causes” (as opposed to infertility treatments or adoption), my particular concern is penile-vaginal intercourse.

² By “default perspective,” I refer the perspective which we use as a starting point, given no other information; by “default outcome,” I refer to the outcome which results from no further action.

³ Specifically, those who understood virginity to be stigmatizing were much less likely to use contraception than those who considered virginity loss to be a “gift” or a step in a process. Those who thought of virginity as stigmatizing were much more likely to barely know their partners than people in the other two groups (Carpenter 2005).

⁴ For an interesting discussion using the same dichotomy with specific reference to power, see Hollerbach (1980). The terms “active” and “passive” are, unfortunately, laden with mostly positive and mostly negative cultural connotations, respectively. While I do not wish to invoke these particular connotations with my language, I feel that these terms are a more accurate representation of the situation than those employed by Gage (1998), who describes the same phenomenon as “decisions” and “nondecisions.” While I agree with Gage that not all decisions are carefully thought out and acted upon, I believe that except in instances of coercion, *some* decision is always made, even if it is barely a conscious one.

⁵ Only heterosexual intercourse results in pregnancy; therefore, in cases of non-heterosexual intercourse, and completely non-sexual contexts, an individual can make fertility decisions by him/herself.

⁶ The unintended birth rate (retrospectively reported) in 2002 was also quite high: 35% of recent births at this time were reported as unwanted or mistimed at conception (NCHS 2005).

⁷ Luker's (1999) comment perfectly illustrates this orientation towards active fertility decision-making: "Truly effective contraception, backed up by legally available abortion, [means] that for the first time in history, people [have] to decide actively whether to have a child, rather than passively let nature take its course" (248). While it is true that hormonal methods of contraception are highly effective (though definitely still imperfect), this attitude assumes that there is universal access to and willingness to use them, in addition to a universal willingness to have an abortion. Both assumptions are problematic, as revealed by Luker's own extensive research, in which she finds considerable political resistance to abortion (1984), and many objections by women to the Pill and IUD (1975).

⁸ A woman can use hormonal contraceptives without her partner's knowledge, but if she does, her partner cannot have meaningfully participated in the negotiation.

⁹ By "preference" I do not just mean that couples have a "taste" for not using contraception (although I mean that too), but also that contraception is "costly" in several ways (Luker 1975). The "taste" for not using contraception originates in its sheer inconvenience. There are many unpleasant side effects associated with almost every form of contraception, ranging from decreased libido and weight gain from certain hormonal methods, to decreased sexual pleasure from barrier methods (Hatcher et al. 2004). There are also social costs associated with using contraception, which include the many negotiations required to obtain and use contraception (including negotiations with parents, partners, doctors, and pharmacists), as well as the potential embarrassment from implied sexual activity. Given these social costs as well as considerable economic costs, I think it is reasonable to assume that most people prefer to avoid contraception if they can.

¹⁰ There is some empirical support for this assumption in the United States. Cooper, Agocha, and Powers (1999) found that college students' primary motivation for using condoms was to prevent pregnancy, not disease. In the United States and elsewhere, people generally do not seem to perceive themselves or their partners as being at high risk for sexually transmitted infections (Hammer et al. 1996), so we should not expect this fear to be a major factor in their contraceptive decision-making process, except in contexts where HIV is extremely prevalent.

¹¹ "Communication" about sex can be very difficult to define, since gestures, such as shoving a person away, may be more communicative than simply saying "no." On the other hand, without direct physical or verbal communication, each person is left with only assumptions about what the other person wants (Hollerbach 1980), both in terms of sex and in terms of fertility. This raises some serious problems in any culture which values discretion in sexual matters (see, for instance, Vu (2002) on Vietnam).

¹² By definition, miscarriages are "involuntary," so if there is any conscious decision-making made or action taken to secure a miscarriage, it thus becomes an abortion.

¹³ Given that 48% of unintended conceptions in 2001 occurred during a month when some form of contraception was used (Finer and Henshaw 2006), it is important to account for the frequency of "contraceptive failures" in our theoretical understanding of fertility decision-making (Montgomery 1996).

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