EXAMINING FACTORS INFLUENCING HOW INDIVIDUALS DECIDE WHETHER OR NOT A BEHAVIOR COUNTS AS "HAVING SEX"

by

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ABSTRACT

This study examined how people define having sex as a function of the specific behaviors (e.g., penetrative vs. nonpenetrative acts; whether or not orgasm occurs) and the context in which the behaviors occur (i.e., engaged in by self vs. other). Utilizing a more complex and sensitive research design than in previous studies in this area, 267 men and 367 women rated their degree of confidence that each of 21 physically intimate behaviors (e.g., penile-vaginal intercourse) counted as sex. Separate ratings were made for each behavior when engaged in by (1) the respondent and (2) his/her partner with someone else.Results showed that, for both sexes, some behaviors (e.g., penile vaginal intercourse) were far more confidently rated as having sex than were others (e.g., oral-genital stimulation). Further, both men and women were significantly more certain that a behavior counted as "having sex" when engaged in by their partner (with someone else) than when they engaged in the behavior. Finally, the order in which the two scenarios (i.e., self vs. partner) was presented significantly affected participants' ratings (e.g., partner's behaviors were more confidently rated as "having sex" when these rating were made before rather than after rating one's own behaviors). These findings are discussed in the context of participants' qualitative explanations for their ratings. The methodological and sexual health implications of the results are explored.

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INTRODUCTION

Individuals' judgments about which acts constitute "having sex" likely influence their attitudes and choices when navigating their sexual encounters, and thus have a number of potentially important implications. For example, deciding whether or not engaging in a given behavior constitutes "having sex" could influence a decision regarding the use of condoms during the behavior; an obvious health implication. There are also potentially important relationship implications if partners differ in their definitions of sex (e.g., a disagreement about the number of previous sexual partners each has had or should acknowledge). There could be self-esteem implications: How you see yourself can be influenced by how you choose to define the physically intimate behaviors in which you have or may engage. For example, it could be easier to view yourself as a "slut" if you defined more (rather than fewer) such behaviors from your past as sex. This same decision-making process could also impact the behaviors in which you choose to engage (e.g., to avoid having to see yourself as a slut).

When it comes to making decisions regarding what behaviors count as sex, it is likely that some individuals have fairly rigid rules for such decisions, while for others, these decisions may vary as a complex function of a variety of contextual elements (Gute, Eshbaugh, & Wiersma, 2008). Unfortunately, most of the existing research on how individuals define sex has only examined this process via strictly quantitative means, i.e., asking participants to pick whether they would call a behavior sex or not. A qualitative

examination of individuals' decisions, through their explanations for their choices, could offer important additional insights into context and meaning.

Endorsements of Sexual Behaviors as Sex

A number of studies have examined which sexual behaviors individuals consider to be "having sex" (e.g., Sanders & Reinisch, 1999). These studies all asked individuals to decide, for each of many sexual behaviors, whether or not they would say they had "had sex" if that was the most intimate behavior in which they engaged. Though there was some disagreement among these studies regarding how often some behaviors were considered "sex" (e.g., for oral-genital stimulation, 23-40%, and for manual-genital stimulation, 11-35%), other behaviors were rather uniformly considered to be sex (e.g., penile-vaginal intercourse) and not sex (e.g., deep kissing). The reason for this disagreement about some behaviors is not clear since none of these studies asked participants for an explanation for their answers.

Findings for gender have been inconclusive. Generally, when rank ordering the behaviors from least to most likely to be considered sex, the findings look similar between men and women (e.g., Randall & Byers, 2003); however, one pattern of gender differences has been identified: Men were more likely than women to label less sexually intimate behaviors (e.g., breast stimulation) as sex, whereas women were more likely than men to label more intimate (e.g., oral-genital stimulation) behaviors as sex (Pitts & Rahman, 2001; Trotter & Alderson, 2007).

Some studies also found a number of (often quite complex) individual differences that appear to influence whether or not one labels a behavior as "having sex." One such difference is the extent of an individual's sexual experience. Sanders and Reinisch (1999)

found that when someone has experienced oral-genital contact, but not penile-vaginal intercourse, they were less likely to label oral-genital contact as sex. An even more complicated relationship was reported by Byers, Henderson, and Hobson (2009): For males (but not for females), less sexual experience was associated with a greater likelihood of defining as sex behaviors in which both partners' genitals were being stimulated simultaneously (e.g., penile-vaginal intercourse) and a lower likelihood of defining as sex those behaviors involving only one person's genitals (e.g., manual-genital stimulation) and behaviors without genital stimulation (2009). Other studies, however, have not found that sexual experience mattered (Randall & Byers, 2003; Trotter & Alderson, 2007). Given these inconsistent findings, the current study explored this issue further. Specifically, we examined how more overall sexual experience impacted an individual's likelihood of defining a behavior as sex.

Byers, et al. (2009) also examined religiosity as a possible influence on judgments about sex. They found that for males (but not females) greater religiosity was associated with an increased likelihood of labeling as sex behaviors in which both partners' genitals were being stimulated simultaneously than those involving only one person's genitals and those not including the genitals. However, they discuss that they did not have access to a diverse religious group, and that the group that labeled religion as "very important" was extremely small. They called for religiosity to be examined with a more diverse sample. The current study had access to a wide range of self-identified religiosity among students, so we examined the influence of religious importance on definitions of sex.

Ambiguity and Flexibility in Definitions of Sex

Peterson and Muehlenhard (2007) suggested that underlying many of these studies is the implicit assumption that individuals have clear definitions of what behaviors do and do not constitute having sex. In contrast to this assumption, however, they found that almost everyone they surveyed could describe previously experiencing an ambiguous sexual situation (e.g., "just barely sex"). Further, participants' definitions of sex seemed to be motivated. That is, their decisions about whether or not to label an ambiguous sexual encounter as "having sex" seemed to be motivated by their perception of the consequences of labeling it as such (e.g., negative self-evaluation). Peterson and Muehlenhard called those circumstances in which participants considered the possible consequences of the label when choosing their definition "motivated definitions" (p. 257). They suggested that these motivated definitions may serve to protect individuals' self-image, but could also have the negative consequence of justifying sexually risky behaviors.

Definitions of Sex as Context-Dependent

Researchers have also studied whether individuals' definitions of sex might be influenced by the context in which the behaviors at issue are imbedded. For example, Gute and colleagues (2008) examined the differences in partcipants' decisions to label behaviors as sex when *they* engaged in the behavior vs. when *their partner* did with someone else. Using a between-participants design, they asked one group if they would say they "had sex" if *they* engaged in each of a number of behaviors, while others judged the same behaviors for *their partner* if the behaviors occurred outside the relationship. They found that participants were more likely to rate a partner's behavior than their own

behavior as sex. The only behaviors for which this did not hold true were penile-vaginal intercourse and penile-anal intercourse, which most participants defined as sex under both conditions.

Whether an orgasm occurs during a behavior has also been shown to influence individuals' judgments of whether or not the behavior counts as sex. People are more likely to call a behavior sex if at least one person has an orgasm during the act, especially during oral-genital stimulation (Randall & Byers, 2003; Trotter & Alderson, 2007). Similarly, individuals are more likely to label a partner as a "sexual partner" if orgasm occurs between them (Randall & Byers, 2003) and to maintain that they have remained sexually abstinent if no orgasm occurred during a partnered act in which they engaged (Byers, et al., 2009).

Researchers have also compared individuals' definitions of "having sex" with related constructs, such as "loss of virginity" (e.g., Carpenter, 2001), an "unfaithful" partner (e.g., Randall & Byers, 2003), status of the partner as a "sexual partner"(e.g., Trotter & Alderson, 2007), and "sexual abstinence" (Byers, Henderson, & Hobson, 2009). These cultural constructs represent other ways individuals meaningfully conceptualize their definition of sex and navigate sexual decision making (e.g., Carpenter '01). In comparing "having sex" with these related constructs, individuals defined "loss of virginity" and "sexual abstinence" more narrowly (i.e., fewer behaviors counted as sex) (Byers, et al., 2009; Carpenter, 2001; Trotter & Alderson, 2007) and defined "unfaithful" and "sexual partner" more broadly (i.e., more behaviors counted) (Randall & Byers, 2003; Trotter & Alderson, 2007).

Methodological Concerns

There are several important methodological considerations for studies examining individuals' definitions of sex, and each will be considered in the context of previous research.

Within-Subjects versus Between-Subjects Design

In studies on the definition of sex in which the interest is in people's response to two judgment contexts (e.g., judging if you vs. someone else had engaged in some behaviors), a significant methodological decision must be made: Do you present both contexts to everyone (i.e., a within-subjects design) or do you present only one context to each of two or more groups (i.e., a between-subjects design)? If utilizing a within-subjects design, a decision must be made of how (or if) to control for the *order* in which the judgment contexts are presented (owing to the concern is that participants might be influenced by a prior set of judgments when making subsequent judgments). As mentioned above, Gute and colleagues (2008) were interested in whether people's judgments of what behaviors counted as sex differed depending on whether they were rating their own behaviors or those of their partner. To avoid having judgments of one context impact judgments of the other, they utilized a between-subject design in which one group of participants answered only about their own behavior while others answered only about a partner's behavior. Of course, one limit to this design is that because different people are judging the different conditions, one cannot be certain of the degree to which differences in ratings were a function of the people making the judgments or the independent variable manipulation. This is particularly problematic when the number of participants is not large.

To avoid the limits of a between-subjects design, some researchers (e.g., Trotter & Alderson, 2007) have utilized a within-subjects approach where the same group of participants makes judgments under both conditions (i.e., what counts as sex if I do it and if my partner does it).To avoid the possibility of carry-over effects, some researchers (e.g., Byers, et al., 2009; Randall & Byers, 2003) counter-balanced the order in which the scenarios were presented. Still, there are interpretive limits to this technique. If the two groups' scores are simply averaged (presumably balancing out any order differences), this will also mask any potentially meaningful order effects that might exist (i.e., how order is affecting the second sets of ratings). The current study utilized a counter-balanced between-subjects design, which allowed us to test specifically for the nature and direction of any possible order effect.

Measurement of the Dependent Variable

Previous research on this topic hasalways utilized a dichotomous dependent measure, asking participants to decide simply whether or not each of a number of behaviors would qualify as "having sex" (e.g. Sanders & Reinsich, 1999). This limited answer choice does not allow for the possibility of subtlety, ambiguity, or lack of certainty in participant judgments. For example, individuals may feel less certain regarding some behaviors (e.g., breast stimulation, oral-genital stimulation) than others (e.g., penile-vaginal intercourse), but have no way to express this uncertainty. As a consequence, participants' responses in studies using only a dichotomous measure may not fully or most accurately represent their judgments. The current study provided a four-point scale, including both absolute and intermediate answer choices, which examined the degree of certainty that an intimate behavior counts as sex.

Finally, as mentioned above, no studies in this area have asked participants for qualitative explanations for their decisions. Open-ended, follow-up questions would allow participants to explain their choices and would provide for an examination of the factors encompassing participants' definitional decision making. The current study asked participants to explain the answer they chose, allowing us to examine the reasons why individuals consider a behavior to be sex or not sex, as well as to examine why there is less certainty for some behaviors than others.

In summary, we were interested in further examining individuals' definitions of sex, including how these definitions change across contexts. We were especially interested in learning whether individuals' definitions of sex are; (1) subject to uncertainty (i.e., how often do they choose intermediate rather than absolute alternatives), (2) influenced by context (rating self vs. other), and (3) affected by the order in which different contexts are presented. In addition, evaluations of qualitative explanations for these definitions allowed us to gain a more nuanced understanding of what underlies definitions of sex.

METHOD

The Current Study

The current study further examined men's and women's definitions of sex while utilizing procedures designed to address some of the methodological limitations of earlier research. Specifically:

1. Participants judged whether or not each of a variety of behaviors constitute having sex utilizing a more sensitive 4-point Likert-type scale, in contrast to previous studies in which these judgments were made on a simple dichotomous (Yes or No) basis.
2. Utilizing a mixed method design, participants judged each behavior assuming (a) they and (b) their significant other (with someone else) were engaging in the behavior, with the order in which these judgments were made (i.e., for self or significant other first) systematically manipulated so that possible order effects could be evaluated.

Quantitative Hypotheses and Analyses

The following hypotheses were tested:

1. Rank order of the behaviors (for self and for significant other), from least to most frequently considered to be sex, will correlate significantly with the findings of previous research.

2. The order in which the two conditions (significant other and self) are presented will affect the degree of certainty (on our 4-point scale) that the behaviors in question count as sex, as follows:
    a) Participants will give a **lower** score (i.e., indicating less certainty that the behavior counts as sex or greater certainty that it does not count as sex) for ratings for self when these are presented before, rather than after, ratings for significant other.
    b) Participants will give a **higher** score (i.e., indicating greater certainty that the behavior counts as sex) when rating for significant other before, rather than after, rating for self.
3. Participants will give a **higher s**core (i.e., indicating greater certainty that the behavior counts as sex) to behaviors when engaged in by their significant other than when the respondent is considering his/her own behavior.
4. To test for effects of gender, we hypothesize that:
    a) For behaviors other than those involving genital stimulation, men will endorse higher scores (i.e., indicating greater certainty that the behavior counts as sex) than will women.
    b) For behaviors involving genital stimulation, women will endorse higher scores than will men.
5. Participants will give higher ratings (i.e., indicating greater certainty that the behavior counts as sex) to behaviors involving genital stimulation if at least one of the two people involved in the encounter is described as experiencing an orgasm during the act.

Further, we examined how, if at all, definitions of sex were impacted by sexual experience and religious importance. As described earlier, sexual experience and religious importance had little consistent support as factors in individuals' definitions of sex. Therefore, no formal hypotheses were offered.

Qualitative Investigations

Further, participants' reasons for why a behavior does or does not count as sex was examined. Utilizing Braun and Clark's (2006) method of thematic analysis, we content analyzed the qualitative explanations offered. While no hypotheses were offered in this exploratory phase of this study, data were examined for possible participant gender differences in the distribution of theme content.

Participants

The total initial sample consisted of 729 introductory psychology students from the University of Utah Psychology Department subject pool, 323 males and 406 females. Fifty-two cases that were missing more than 50% of the data for at least one of the two conditions, or which lacked gender information, were deleted. Further, anyone who identified with a sexual orientation other than heterosexual was withheld from analyses for the purpose of this study, which totaled 83 individuals. Thus, the final sample consisted of 594 individuals, 267 men and 367 women.

Participants ranged in age from 18 to 62 (M = 23.3, SD = 6.55). Most were Caucasian (80.6%), with all other ethnicities amounting to less than 7% of the sample each. The sample was religiously diverse, with all categories of religious importance being well-represented (Not at all important: 29%, Somewhat important: 20.4%,

Moderately important: 15.8%, Very important: 16.8%, Definitely important: 18%).

Questionnaires

The study consisted of a questionnaire with three parts: a page of demographics and two sets of questions. The items included in the two sets of questions were nearlyidentical; however, the context was manipulated, in that one section inquired about participants' own behavior, and the other inquired about the behavior of a partner. Questions in the self section asked participants about whether each of 21 behaviors (ranging from kissing to penile-vaginal intercourse) counted as sex and whether or not they had experienced each. The behaviors were identical to those used by Randall and Byers (2003), except the "69 position" (i.e., mutual oral-genital activity) was added. At the top of the page (before the first question), was the prompt: "Would you say you 'had sex' with another person if the most intimate behavior you engaged in was…?" For each of the 21 behaviors, participants were asked to indicate their decision on a four-point Likert-type scale:1 = *definitely not sex*, 2 = *probably not sex*, 3 = *probably sex*, and 4 = *definitely sex*.

Participants were also asked to provide qualitative explanations for their answers of particular interest to us (i.e., choices that would not be expected based on findings from previous studies). For example, participants were asked to elaborate if they responded "definitely sex" for behaviors which studies have shown few people consider to be sex (e.g., deep kissing) or, similarly, if responding "definitely not sex" for behaviors frequently considered to be sex (e.g., penile-vaginal intercourse). Additionally, they were asked to explain their answer each time they choose an intermediate answer choice. So that participants would not notice this pattern, the same follow-up question was also

asked for other behaviors, regardless of the answer chosen.

The partner section asked participants: “Would you say your significant other ‘had sex’ with someone else if he/she engaged in the following behavior with that person while still romantically involved with you?” and included the same list of 21 sexual behaviors as in the “self” questions, with the wording altered appropriately. Participants who were not currently in a romantic relationship were instructed to answer the questions about a hypothetical significant other. Participants were reminded that we were not asking if they thought a behavior counted as “cheating,” nor if they would be upset if their significant other engaged in the behavior with someone else. Rather, they were instructed to only consider whether or not they would count each behavior as “having sex.”

The demographics section included questions about gender, sexual orientation, race, age, and religiosity.

The order in which the questionnaires were distributed resulted in approximately half receiving the self questions prior to the significant other questions and half receiving the significant other questions prior to the self questions. Regardless of the order, the page of demographic questions was always placed between the other two sets of questions in order to separate them and reinforce for participants that the second set of questions was different.

Procedure

Potential participants found the study online through the psychology department participant pool. Those interested in participating were referred to a webpage where they were presented with a consent form explaining the purpose of the study (i.e., that we are

interested in learning more about “how people define sex”) and their rights as a participant in this IRB-approved study. After choosing to continue with the study, participants were provided a link to the questionnaire. Participants were not informed in advance that they would be rating behaviors for both themselves and for a significant other so as to avoid influencing their ratings of the first set of behaviors with which they were presented. Before rating any behavior, participants were presented with a page containing the instructions. They were then taken to the page containing questions about the first behavior. Participants only viewed descriptions of one behavior per survey webpage, and once they finished a webpage and clicked the “next” button, they were unable to go back to view or change their answers on previous behaviors. When finished, participants submitted their completed questionnaires electronically. In order to maintain confidentiality, they were navigated to a separate page asking them to leave the identifying information necessary to assign credit.

RESULTS

Quantitative Findings

Missing items amounted to 3.4% of the data, and listwise deletion was used to handle this. Table 1 lists the frequency with which each of the four scale items were used for the 21 intimate behaviors. In order to establish the overall comparability of our sample with that of previous research (hypothesis 1), ratings of intimate behaviors were first rank ordered (see Table 1) from least to most participant confidence that the behavior counts as sex. These ranks were then compared with the ranks of behaviors in Gute et al.'s 2008 study (also Table 1). This study was chosen for comparison because it was conducted recently, was similar to the current study in the behaviors presented, and had a large sample. Spearman's rho revealed a very strong and statistically significant relationship between the rankings, $r(7) = .98$, $p < .001$. Thus, the current sample defines sex similarly to at least one of the major previous studies (Gute et al., 2008), which, in turn, reported rankings similar to the other major prior studies (e.g., Sanders & Reinisch, 1999).

Next, analyses were conducted to determine the importance of presentation order (i.e., hypothesis 2a and 2b). These hypotheses were tested via two one-way multivariate analyses of variance (MANOVA), where the between-subjects independent variable for each was Order (MANOVA 1: self presented first vs. second; MANOVA 2; partner presented first vs. second). The dependent variables were the 21 intimate behaviors.

Table 1

Descriptive Information for Intimate Behavior Rankings and Rank Order Comparison

	Definitely Not Sex		Probably Not Sex		Probably Sex		Definitely Sex			
Intimate behaviors	*N*	%	*N*	%	*N*	%	*N*	%	Rank Order	Gute Rank Order
Deep kissing	**548**	**92.3**	28	4.7	11	1.9	5	0.8	1	1
P stimulates your/OP's nipples	**435**	**73.2**	100	16.8	36	6.1	21	3.5	2	3
You/OP stimulates P's nipples	**414**	**69.7**	118	19.9	42	7.1	20	3.4	3	2
Self-stimulation on computer	**384**	**64.6**	128	21.5	58	9.8	23	3.9	4	
Self-stimulation on phone	**375**	**63.1**	134	22.6	60	10.1	22	3.7	5	
Mutual self-stimulation	**352**	**59.3**	139	23.4	64	10.8	37	6.2	6	
P manually stimulates you/OP	**293**	**49.3**	155	26.1	89	15.0	56	9.4	7	5
You/OP manually stimulate P	**283**	**47.6**	168	28.3	90	15.2	53	8.9	8	4
P manually stimulate you/OP, w/ orgasm	**245**	**41.2**	154	25.9	110	18.5	84	14.1	9	
You/OP manually stimulate P, w/ orgasm	**242**	**40.7**	159	26.8	108	18.2	83	14.0	10	
P orally stimulates you/OP	**171**	**28.8**	137	23.1	139	23.4	146	24.6	11	7
You/OP orally stimulate P	**163**	**27.4**	149	25.1	136	22.9	146	24.6	12	6
P orally simulates you/OP, w/ orgasm	137	23.1	140	23.6	132	22.2	**184**	**31.0**	13	
You/OP orally stimulate P, w/ orgasm	129	21.7	144	24.2	136	22.9	**184**	**31.0**	14	

Table 1 Continued

	Definitely Not Sex		Probably Not Sex		Probably Sex		Definitely Sex			
Intimate Behaviors	*N*	%	*N*	%	*N*	%	*N*	%	Rank Order	Gute Rank Order
69 Position (mutual oral stimulation)	119	20.0	123	20.7	152	25.6	**197**	**33.2**	15	
Anal intercourse	21	3.5	27	4.5	128	21.5	**416**	**70.0**	16	8
Anal intercourse, w/ orgasm	22	3.7	22	3.7	109	18.4	**440**	**74.1**	17	
Penile-vaginal intercourse, NO	12	2.0	3	0.5	50	8.4	**528**	**88.9**	18	9
Penile-vaginal intercourse, MO	5	0.8	1	0.2	21	3.5	**566**	**95.3**	19	
Penile-vaginal intercourse, FO	4	0.7	1	0.2	22	3.7	**564**	**94.9**	20	
Penile-vaginal intercourse, BO	4	0.7	1	0.2	2	0.3	**586**	**98.7**	21	

Notes: P = partner, OP = other person, w/ = with, NO = nobody orgasms, MO = male orgasms, FO = female orgasms, BO = both orgasm. "Gute" refers to Gute et al. (2008) article. Most frequent response indicated in bold type.

Consistent with hypothesis 2a, participants gave a **lower** score (less confidence that the behavior counted as sex) for ratings for self when the ratingswere made before, rather than after, ratings for significant other, $F(21, 557) = 2.54$, $p < .001$, partial eta squared = .087. Further, consistent with hypothesis 2b, participants gave a **higher** score (more confidence that the behavior counted as sex) when ratings for significant other were made before, rather than after, ratings for self, $F(21, 560) = 3.42$, $p < .001$, partial eta squared = .11. Univariate analyses showed this effect (of first ratings on second ratings) held true in both analyses for all behaviors except for all four penile-vaginal intercourse conditions, anal sex (with orgasm), anal sex without orgasm (MANOVA 1) and deep kissing (MANOVA 2). This is not surprising since previous research shows that almost everyone defines these specific behaviors as sex or not sex (e.g., Sanders & Reinisch, 1999). Univariate analyses and mean scores are presented in Table 2.

Hypothesis 3 (participants will give a **higher** score, indicating greater confidence a behavior is sex, to behaviors when engaged in by their significant other than when the respondent is considering his/her own behavior) was tested via a 2 (*participant gender*, male vs. female) x2 (*target*, self vs. other) factorial MANOVA. The dependent variables were again the 21 intimate behaviors. The main effect of target was significant: $F(21, 561) = 4.85$, $p < .001$, partial eta squared = .15. Examination of the univariate analyses indicated a consistently strong effect, with participants rating all behaviors but one as more "like sex" when considering a partner engaging in the behavior vs. when considering one's own behavior. The exception was *penile-vaginal intercourse with both people orgasming*, which almost 100% of people in both conditions rated as definitely counting as sex. The main effect for gender was technically also significant, $F(21, 561) = 2.07$, $p < .005$, partial eta squared = .07; however, univariate analyses revealed the effect

Table 2

The Effect of Scenario Presentation Order on Definitions of Sex

	Self (Hypothesis 1a)			Partner (Hypothesis 1b)		
	1st	2nd		1st	2nd	
Intimate behaviors	M(*SE*)	M(*SE*)	*F*	M(*SE*)	M(*SE*)	*F*
Deep kissing	1.05(*.03*)	1.15(*.02*)	8.00*	1.11(*.03*)	1.18(*.03*)	2.63
P stimulates your/OP's nipples	1.28(*.05*)	1.48(*.04*)	10.46**	1.45(*.05*)	1.86(*.05*)	32.01***
You/OP stimulates P's nipples	1.34(*.05*)	1.51(*.04*)	7.98**	1.45(*.05*)	1.85(*.05*)	34.12***
Self-stimulation on computer	1.36(*.05*)	1.68(*.05*)	22.08***	1.50(*.06*)	1.84(*.05*)	21.16***
Self-stimulation on phone	1.39(*.05*)	1.67(*.05*)	17.80***	1.53(*.06*)	1.90(*.05*)	24.66***
Mutual self-stimulation	1.42(*.05*)	1.83(*.05*)	30.94***	1.61(*.06*)	2.00(*.05*)	25.92***
P manually stimulates you/OP	1.67(*.06*)	1.98(*.06*)	15.42***	1.87(*.06*)	2.22(*.06*)	16.18***
You/OP manually stimulate P	1.68(*.06*)	1.98(*.06*)	14.15***	1.85(*.06*)	2.20(*.06*)	17.19***
P manually stimulate you/OP, w/ orgasm	1.90(*.07*)	2.17(*.06*)	8.96**	1.99(*.07*)	2.48(*.06*)	31.49***
You/OP manually stimulate P, w/ orgasm	1.89(*.06*)	2.18(*.06*)	11.69**	2.04(*.07*)	2.48(*.06*)	24.04***
P orally stimulates you/OP	2.21(*.07*)	2.62(*.06*)	18.55***	2.34(*.07*)	2.85(*.06*)	27.03***
You/OP orally stimulate P	2.24(*.07*)	2.60(*.06*)	14.83***	2.40(*.07*)	2.88(*.06*)	25.95***
P orally simulates you/OP, w/ orgasm	2.41(*.07*)	2.78(*.06*)	14.89***	2.47(*.07*)	3.00(*.06*)	32.98***
You/OP orally stimulate P, w/ orgasm	2.43(*.07*)	2.80(*.06*)	14.78***	2.56(*.07*)	3.00(*.06*)	21.21***
69 Position (mutual oral stimulation)	2.46(*.07*)	2.94(*.06*)	27.02***	2.65(*.07*)	3.08(*.06*)	21.48***
Anal intercourse	3.53(*.04*)	3.65(*.04*)	3.67	3.59(*.04*)	3.73(*.04*)	6.01*

Table 2 Continued

	Self (Hypothesis 1a)			Partner (Hypothesis 1b)		
	1st	2nd		1st	2nd	
Intimate Behaviors	M(*SE*)	M(*SE*)	*F*	M(*SE*)	M(*SE*)	*F*
Anal intercourse, w/ orgasm	3.60(*.04)*	3.67(*.04)*	1.59	3.64(*.04)*	3.74(*.04)*	3.24
Penile-vaginal intercourse, NO	3.82(*.03)*	3.88(*.02)*	2.03	3.87(*.03)*	3.92(*.03)*	2.65
Penile-vaginal intercourse, MO	3.93(*.02)*	3.94(*.02)*	.33	3.94(*.02)*	3.98(*.02)*	3.31
Penile-vaginal intercourse, FO	3.93(*.02)*	3.95(*.02)*	.72	3.95(*.02)*	3.98(*.02)*	2.10
Penile-vaginal intercourse, BO	3.97(*.02)*	3.98(*.02)*	.24	3.97(*.01)*	4.00(.01)	2.67

Notes: P = partner, OP = other person, w/ = with, NO = nobody orgasms, MO = male orgasms, FO = female orgasms, BO = both orgasm. All *df*s are 1. For *p* values*:* **p*<.05, ***p*<.01, ****p*<.001.

was captured by only one significant dependent variable, *stimulation over the computer*, with only a few of the other behaviors even close to $p < .05$. Insofar as the effect is interpretable, women rated stimulation over the computer higher, indicating greater confidence the behavior counted as sex, than did men (univariate analyses and comparison of means are presented in Table 3).The multivariate test for the interaction was not statistically significant, $F(21, 561) = .85$, $p > .05$, partial eta squared = .03.

Next, in order to test the relationship between participant gender and ratings of both genital and nongenital behaviors (hypothesis 4), two one-way MANOVAs were conducted with gender as the independent variable in both, and the dependent variables were the ratings for all nongenital behaviors in the first analysis and genital behaviors in the second analysis. In the first analysis (nongenital behaviors), the main effect for gender was significant, $F(6, 584) = 5.53$, $p < .001$, partial eta squared = .05. However, univariate analyses revealed only one behavior (*you stimulated partner's nipples*) was capturing the effect. Insofar as this is interpretable, men rated this behavior more confidently as counting as sex. All univariate analyses and comparison of means are presented in Table 4. In the second analysis, the main effect for gender was not significant, $F(15, 571) = 1.17$, $p > .05$, partial eta squared = .03. Hypothesis 4 was unsupported for behaviors that do and do not involve the genitals.

Hypothesis 5 tested whether participants would have more confidence a behavior counts as sex if an orgasm occurred during the act. This was tested with a repeated measures MANOVA, in which the within subjects independent variables were orgasm (present or absent) and type of behavior (the four behaviors for which orgasm was manipulated), and the dependent variables were the certainty ratings that the behaviors

Table 3

The Effect of Gender and Target on Definitions of Sex

	Target			Gender		
	Self	Partner		Male	Female	
Intimate behaviors	M(*SE*)	M(*SE*)	*F*	M(*SE*)	M(*SE*)	*F*
Deep kissing	1.06(*.03*)	1.18(*.03*)	9.23**	1.13(*.03*)	1.11(*.03*)	.42
P stimulates your/OP's nipples	1.29(*.06*)	1.86(*.05*)	62.07***	1.55(*.06*)	1.60(*.05*)	.32
You/OP stimulates P's nipples	1.38(*.05*)	1.86(*.05*)	44.17***	1.68(*.06*)	1.56(*.05*)	2.92
Self-stimulation on computer	1.34(*.06*)	1.86(*.05*)	49.94***	1.51(*.06*)	1.69(*.05*)	5.62*
Self-stimulation on phone	1.37(*.06*)	1.91(*.05*)	52.41***	1.57(*.06*)	1.71(*.05*)	3.44
Mutual self-stimulation	1.41(*.06*)	2.01(*.05*)	58.90***	1.68(*.06*)	1.74(*.05*)	.54
P manually stimulates you/OP	1.70(*.07*)	2.22(*.06*)	37.59***	1.98(*.07*)	1.94(*.06*)	.32
You/OP manually stimulate P	1.72(*.07*)	2.21(*.06*)	32.20***	1.99(*.07*)	1.94(*.06*)	1.56
P manually stimulate you/OP, w/ orgasm	1.91(*.07*)	2.49(*.06*)	39.14***	2.20(*.07*)	2.19(*.06*)	.03
You/OP manually stimulate P, w/ orgasm	1.91(*.07*)	2.48(*.06*)	38.18***	2.25(*.07*)	2.14(*.06*)	1.56
P orally stimulates you/OP	2.22(*.07*)	2.85(*.06*)	45.85***	2.55(*.07*)	2.53(*.06*)	.05
You/OP orally stimulate P	2.26(*.07*)	2.88(*.06*)	43.20***	2.59(*.07*)	2.54(*.06*)	.28
P orally simulates you/OP, w/ orgasm	2.40(*.07*)	2.99(*.06*)	39.20***	2.70(*.07*)	2.69(*.06*)	.01
You/OP orally stimulate P, w/ orgasm	2.42(*.07*)	2.99(*.06*)	36.11***	2.71(*.07*)	2.70(*.06*)	.01
69 Position (mutual oral stimulation)	2.45(*.07*)	3.07(*.06*)	43.56***	2.76(*.07*)	2.76(*.06*)	.03
Anal intercourse	3.53(*.05*)	3.74(*.04*)	12.38***	3.62(*.05*)	3.64(*.04*)	.06
Anal intercourse, w/ orgasm	3.59(*.05*)	3.74(*.04*)	7.26**	3.64(*.05*)	3.68(*.04*)	.39

Table 3 Continued

	Target			Gender		
	Self	Partner		Male	Female	
Intimate behaviors	M(*SE*)	M(*SE*)	*F*	M(*SE*)	M(*SE*)	*F*
Penile-vaginal intercourse, NO	3.83(*.03*)	3.93(*.02*)	6.72*	3.88(*.03*)	3.87(*.02*)	.17
Penile-vaginal intercourse, MO	3.93(*.02*)	3.98(*.02*)	4.27*	3.96(*.02*)	3.96(*.01*)	.02
Penile-vaginal intercourse, FO	3.93(*.02*)	3.98(*.02*)	5.86*	3.95(*.02*)	3.96(*.02*)	.01
Penile-vaginal intercourse, BO	3.97(*.01*)	4.00(*.01*)	3.04	3.98(*.01*)	3.98(*.01*)	.01

Notes: P = partner, OP = other person, w/ = with, NO = nobody orgasms, MO = male orgasms, FO = female orgasms, BO = both orgasm. All *df*s are 1. For *p* values*:* **p*<.05, ***p*<.01, ****p*<.001.

Table 4

Gender Differences in Definitions of Sex for Non-Genital Behaviors

	Male	Female	
Intimate behaviors	M(*SE*)	M(*SE*)	*F*
Deep kissing	1.17(*.03*)	1.10(*.03*)	3.31
P stimulates your/OP's nipples	1.65(*.05*)	1.54(*.05*)	2.44
You/OP stimulates P's nipples	1.76(*.05*)	1.51(*.05*)	12.17**
Self-stimulation while on the computer	1.59(*.05*)	1.64(*.05*)	.35
Self-stimulation while on the phone	1.67(*.06*)	1.67(*.05*)	.01
Mutual self-stimulation	1.79(*.06*)	1.68(*.05*)	1.99

Notes: P = partner, OP = other person, w/ = with. All *df*s are 1. **p*<.05, ***p*<.01, ****p*<.001.

counted as sex. The multivariate test for both main effects of orgasm, $F(1, 589) = 140.5$, $p < .001$, partial eta squared = .19, and behavior, $F(3, 587) = 730.28$, $p < .001$, partial eta squared = .79, were significant; however, these were qualified by an orgasm x behavior interaction: $F(3, 587) = 17.86$, $p < .001$, partial eta squared = .08. Figure 1 illustrates this relationship, suggesting that the significant interaction was apparently the result of this orgasm effect being less strong for anal intercourse than for the other behaviors. Follow-up paired sample t-tests were conducted to examine each behavior. For all six behaviors, participants were significantly more confident that a behavior counted as sex if an orgasm occurred during that behavior (Table 5).

We next examined the effect on behavior ratings of two individual difference variables, religiosity and sexual experience. First, the 21 physically intimate behaviors were factor analyzed using exploratory factor analysis with oblique (promax) rotation. The most satisfactory solution resulted in four factors, with each of the 21 sexual behaviors loading .57 and above on one (and only one) factor. Factor loadings grouped the behaviors in a meaningful way, including nongenital and manual-genital behaviors (Factor 1), penile-vaginal behaviors (Factor 2), oral-genital behaviors (Factor 3), and anal intercourse behaviors (Factor 4). For each participant, a scaled score was calculated for each factorby computing the mean of the participants' scores forall behaviors loading on a given factor. Religiosity was assessed on a 1-5 scale as 1-"Not at all important," 2-"somewhat important," 3- "moderately important," 4- "Very important," and 5-"Definitely important." Sexual experience was assessed by summing the number (out of 21) of sexual behaviors in which the individual acknowledged having engaged.

Then, bivariate correlations were conducted between the individual difference variables and each of the four intimate behavior factors (Table 6). Only two of these eight

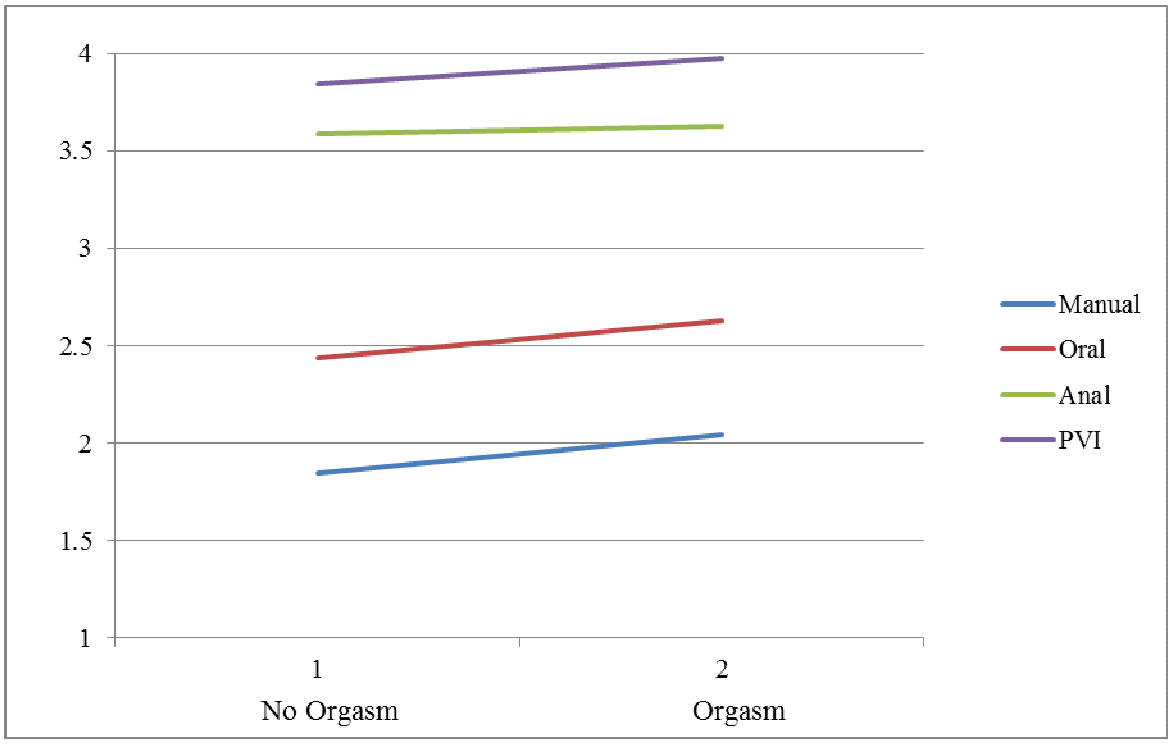

Figure 1

The Effect of the Interaction of Intimate Behavior x Orgasm on Definitions of Sex

Table 5

The Effect of Orgasm Occurrence during a Behavior on Definitions of Sex

	Orgasm Condition			
	No Orgasm	Orgasm		
Intimate Behavior	M(*SD*)	M(*SD*)	*t*	*df*
Manual-genital stimulation	1.85(0.*98*)	2.05(*1.07*)	-8.56***	591
Oral-genital stimulation	2.44(*1.14*)	2.63(*1.14*)	-8.94***	592
Anal intercourse	3.59(0.*74*)	3.63(0.*73*)	-3.09**	591
Penile-vaginal intercourse	3.84(0.*51*)	3.97(0.*27*)	-6.98***	592

Note. *p<.05, **p<.01, ***p<.001.

Table 6

Bivariate Correlations of Individual Difference Variables and Factors (N = 592)

Variable	2	3	4	5	6
1. Religious Importance	-.28***	.08*	.04	.03	-.03
2. Sexual Experience		-.01	.08	.03	.12**
3. Factor 1: Nongenital/Manual			.02	.02	.07
4. Factor 2: PVI				.03	.32***
5. Factor 3: Oral-Genital					.08
6. Factor 4: Anal					

Note. For p values: *p<.05, **p<.01, ***p<.001.

correlations reached statistical significance: There was a significance relationship between religious importance and Factor 1, $r(590) = .08$, $p = .03$, with those with higher ratings of religious importance associated with greater certainty that nongenital and manual genital behaviors counted as sex. There was also a significant relationship, $r(590) = .12$, $p < .01$, between sexual experience and Factor 4, where those with more sexual experience were more certain that anal intercourse behaviors counted as sex. Thus, religious importance seems to be related only to less intimate behaviors, and sexual experience seems to be related to only two more intimate behaviors.

Qualitative Exploration

A random subset of 216 participants (109 men and 107 women) was selected for the qualitative exploration. This subset was found to be comparable to the full data set in gender (i.e., female to male ratio), $X^2(1, N = 810) = 1.94$, $p > .05$, and age, $t(808) = 1.37$, $p > .05$.Using Braun and Clark's (2006) method of thematic analysis as a guide, participants' explanations were coded into categories by the first author and three research assistants. Prior to this, raters were trained for 5 months on a subset of data not used in this project. Out of an initial list of 43 themes, 19 were either determined to be too similar to other themes (with which they were combined) or were occurring too rarely and were deleted. This left 24 themes in the final coding scheme. Two raters independently coded each explanation into one or more themes, with discrepancies resolved via group consensus.

Interrater reliability was quite strong. The overall percent agreement was 88%. When treating each code separately, the range of agreement was 78% to 100% with a median of 90%. Kappas were computed for each code, with all values above .7, a range

of .71-1.00, and a median of.93.

The prevalence of the 24 themes, by gender, is listed in Table 7. Some themes seemed to fit logically under more general categories, and those themes were grouped to increase table readability. The frequencies with which each of the 24 qualitative themes occurred were analyzed (using either chi square comparisons or Fisher's exact test) for possible gender differences. Of the seven themes with significant gender differences, women mentioned six of them more often than did men (Table 7).

Table 7

Use of Themes by Men and Women

Themes	Men		Women		χ^2	*p*
	n	%	*n*	%		
Physical reasons						
"Physical contact" w/ OP	51	46.8	57	53.3	0.463	*ns*
"Penetration" (any)	47	43.1	53	49.5	0.893	*ns*
Involves "genital touching"	31	28.4	31	29	0.007	*ns*
"Both genitals are touching"	22	20.2	15	14	1.758	*ns*
Outcome-based reasons						
"Orgasm must occur" to be sex	34	31.2	29	27.1	.437	*ns*
"Causes sexual arousal"	17	15.6	23	21.5	1.245	*ns*
"Risk of STD"	5	4.6	7	6.5	.393	*ns*
"Orgasm could happen"	3	2.8	6	5.6		*ns*
"Pregnancy could happen"	3	2.8	6	5.6		*ns*
"No longer a virgin"	0	0	5	4.7		.03
Learned reasons						
It's "intercourse"	36	33	32	29.9	.244	*ns*
"Phrase includes 'sex'"	7	6.4	10	9.3	.437	*ns*
"Society teaches it's sex"	2	1.8	3	2.8		*ns*
Reasons it's not sex						
"Sexual situation"	16	14.7	37	34.6	11.549	<.001
It's a "degree of sex"	38	32.1	33	30.8	.396	*ns*
It's a "type of sex"/related to sex	16	14.7	15	11.2	.019	*ns*
Reasons w/out explanation						
"It's sex" (no explanation)	53	48.6	44	41.1	1.228	*ns*
"Only penis in vagina is sex"	15	13.8	29	27.1	5.925	.01

Table 7 Continued

Themes	Men		Women		χ^2	*P*
	n	%	*n*	%		
Comparison to another behavior	11	10.1	1	1		.01
"It depends on the context"	4	3.7	8	7.4		*ns*
Unsure…	0	0	6	5.6		.01
Other reasons						
"Foreplay"	28	25.7	42	39.3	4.535	.03
"Intimacy"	17	15.6	24	22.4	1.640	*ns*
"It's sex for same-sex couples"	2	1.8	12	11.2		.01

Notes: OP = other person, w/ = with, STD = sexually transmitted disease. A blank cell for the chi-square value indicates Fisher's exact test was conducted. The listed percent indicates men or women that offered that theme. *N* = people who ever used that explanation. Statistical significance is at $p<0.05$ level.

DISCUSSION

This study attempted to examine further factors involved in individuals' definitions of sex, while also addressing four important methodological limitations in previous research. First, prior work has failed to statistically control for the dependency amongst the multiple dependent variables measured when participants are asked to decide whether or not different behaviors constituted "having sex." Second, when evaluating contextual factors involved in one's definition of sex, prior studies utilizing a within-subject design failed to examine the possible effects of presentation order of the manipulation. Third, previous research has allowed participants only the forced choice of a yes/no, allowing them no less certain option. Finally, none of the past work in this area has asked participants to explain the reasoning behind their decisions. Our research method specifically addressed these issues.

Previous work has provided only an ordered list (i.e., a hierarchy) of behaviors ranked from most to least likely to be considered as "having sex." This ordering has proven to be very consistent across studies. This hierarchical structure has been replicated both within (Gute et al., 2008) and outside (e.g., Pitts & Rahman, 2003) the U.S., and across time (Sanders & Reinisch, 1999 to Byers, et al., 2009). It remains an open question as to whether or not this hierarchical structure stays the same within an individual over time. As hypothesized, despite a sample that was rather unique in some ways (e.g., 24.5% of our participants identified as Mormon), we found virtually the identical rank ordering

of the behaviors (from most to least confidently rated as sex). This suggests that this hierarchy is quite robust across place and, to a degree, time as well.

Individual Differences and Statistical Improvements

Previous studies have examined the effect of variables of interest (e.g., participant gender) on each intimate behavior separately, generating a statistical concern (i.e., risks Type I error). We chose to use MANOVA procedures, when possible, because they allowed us to take into account multiple dependent variables and the dependence among them, while also offering an omnibus test prior to evaluating the effects for individual behaviors. The failure of previous studies to do this may help explain inconsistent findings regarding the nature and strength of some individual differences (e.g., gender) on what behaviors people define as sex.

Contrary to previous studies, we found little evidence that several individual difference variables affected definitions of sex. While some others reported gender differences in how people define sex (Trotter & Alderson, 2007), we failed to do so, even when splitting behaviors into genital and nongenital (as suggested by Pitts & Rahman, 2001). In contrast, we did find gender differences for qualitative findings. Specifically, when compared to male participants, females (1) offered *more reasons* and (2), were more likely to mention *specific reasons* for defining a behavior as sex (e.g., "virginity loss," "foreplay," and "only penis in vagina is sex"), while males were more likely to offer no reason or a more general reason (i.e., comparing a behavior to one answered previously). Women were also more likely to say they were unsure about the reason they chose their rating. It is certainly possible that women were simply more thoughtful and complete in their explanations than men. However, this might also suggest that though

men and women may not differ in what behaviors they consider as "having sex," they do differ in why behaviors fit (or do not fit) their definition of sex.

We did not offer specific hypotheses regarding the other individual difference variables tested, sexual experience and religious importance, due to inconsistent findings regarding these variables across previous studies (e.g., Byers et al., 2009; Sanders & Reinisch, 1999). We found that, while overall, religious importance was unrelated to definitions, individuals for whom religion was relatively important were more likely than others to rate nongenital and manual-genital behaviors as counting as sex. Similarly, the effects of sexual experience were, overall, nonsignificant, related only to ratings for anal intercourse (i.e., the more sexual experience a participant reported, the more likely they were to consider anal intercourse to be sex). Taken together, these findings suggest that neither sexual experience nor religiosity have much of a relationship with the kinds of behaviors young adults consider as having sex.

Contextual Factors and Presentation Order

We replicated, as hypothesized, Gute and colleagues' finding (2008) of "definitional discontinuity," in which individuals are more likely to call a behavior sex if considering a partner's behavior than when considering their own. Participants were less certain that a behavior counted as sex when first rating their own behavior than were those rating their partner's behavior first (before either group of participants knew they would be rating both for themselves and another). This does not explain *why* people have different standards for their partners than they do for themselves, though there are a few possible reasons. Asking participants to consider a partner's behavior when they are with someone else may have elicited negative emotions (e.g., sexual jealousy, anger) which

affected their answers. Alternatively, when considering their own behavior, some people may have downplayed the extent to which they believe a behavior is "sex" in order to protect their self-image when considering prior sexual experiences. Gute and colleagues (2008) suggested that this effect may be due to individuals protecting their self-image by changing their attitudes to resolve discrepancies with their behavior (e.g., "If I say fellatio is not sex, then doing it previously does not make me a slut").

Further, as also hypothesized, presentation order was found to significantly affect participants' certainty ratings. Specifically, ratings for the self scenario were higher when presented after (than before) the partner scenario, and ratings for the partner scenario were lower when presented after (than before) the self scenario. This effect of presentation order may be due to a conscious attempt to be fair; to apply the same standard in evaluating their partner's sexual behaviors as their own. Alternatively, this may be due to the tendency of participants to appear consistent throughout the study, regardless of the context.

Another contextual factor which appears to have influenced definitions of sex in previous research is the presence or absence of orgasm in the judged behavior (e.g., Randall & Byers, 2003). As hypothesized, we too found that participants were more confident that a behavior counted as sex if an orgasm did (vs. did not) occur during the behavior. We found the effect to be present for all four behaviors (i.e., manual-genital stimulation, oral-genital stimulation, anal intercourse, and penile-vaginal intercourse). This was supported with qualitative findings, in which 29.2% of the sample stated that for those behaviors in which orgasm was mentioned, the presence or absence of an orgasm was an important factor in their rating decision. Previous research has suggested a few possible reasons why the presence or absence of orgasm affects individuals' definitions

of sex. One is that individuals may feel more intimately connected to a partner in situations in which an orgasm occurs (Sanders & Reinisch, 1999). Randall and Byers (2003) suggested that some individuals may be goal-directed in their view of sex. Indeed, some of those who mentioned orgasm in their explanations seemed to consider an orgasm to be the end-goal (e.g., "it is a very successful case of oral sex if an orgasm occurred").

The findings described and discussed above provide evidence that the context in which behaviors are presented can significantly impact judgments (Gute et al., 2008). This appears to include (but is certainly not limited to) (1) whether one is rating one's own behavior or that of another, (2) whether the ratings for one's own or another's behavior is made before or after the other, and (3) at least some of the behavioral details provided (i.e., the presence or absence of an orgasm). However, there appear to be some limits to these effects. Specifically, though the context can influence the certainty that a given behavior is considered sex, it does not change the overall hierarchical order of behaviors. That is, under all of these contextual conditions, the overall rank orderings of the certainty ratings did not change. For example, while oral-genital stimulation was rated higher (i.e., greater certainty it was sex) when an orgasm did vs. did not occur, it still received lower certainty ratings than anal intercourse and greater certainty ratings than manual-genital stimulation. This supports the idea of a robust hierarchical structure of behaviors defined as sex.

Allowing for Uncertainty in Responses

For the first time in this area of research, a 4-point scale assessing degree of certainty that a behavior fits in one's definition of sex was utilized instead of the previously used dichotomous answer choice. Peterson and Muehlenhard (2007) found

that most individuals they surveyed could identify a number of situations in which they were *uncertain* about whether or not sex had occurred. The 4-point scale we utilized allowed participants to express degrees of certainty-uncertainty. In support of utilizing this approach, although many behaviors elicited a clear "definitely is" or "definitely is not" sex response, the intermediate answer choices were still frequently used (some questions receiving almost evenly distributed responses across all choices), especially for those behaviors found in previous studies to have the least participant agreement. For example, while Sanders and Reinisch (1999) found that 40% of those they surveyed checked "yes" (60% checked "no") when rating oral-genital stimulation, nearly half of our participants expressed some uncertainty by selecting an intermediate answer choice (25.1% picked "probably not sex" and 22.9% chose "probably sex").

We believe this demonstrates the value to future research of this type in providing such intermediate choices. Further, there are potential health implications surrounding the uncertainty to which a given behavior is considered "having sex." For example, if someone experiences uncertainty about the extent to which oral-genital stimulation is "sex," this could discourage the use of proper protection (e.g., condom use) when engaging in this behavior, increasing the risk of spreading or contracting STIs. Though this study was able to measure uncertainty, it could not link uncertainty with behavior outcomes. Future work should also consider the potential relationship between categorizing a behavior as "sex" and the perceived health risks in engaging in this behavior.

Additional Qualitative Findings

Qualitative follow-up encouraged participants to explain their answers, providing us the opportunity to begin to understand why people do and do not consider various behaviors as sex. Participants offered many themes as important in influencing their definition, some of which helped to explain quantitative findings, as discussed above. There are a few additional qualitative findings which are meaningful. The most popular themes mentioned were physical reasons, such as whether or not physical contact occurred (mentioned by 50% of our sample), and whether or not the genitals were involved, with 28.7% saying that one person's genitals must be touched and 17.1% specifying that both genitals must be touching each other to count as sex. Interestingly, physical contact was used most often to describe why a behavior did not count as sex (e.g., for phone/computer sex, "no physical contact, no sex").

Further, our quantitative results showed that almost 100% of people called PVI probably or definitely sex. Almost half offered nothing more than "this is sex" in explanation, suggesting that many people considered PVI to be so obviously and widely considered sex, they struggled to explain or felt an explanation was unnecessary. This idea of PVI as the "gold standard" of sexual encounters is not new. Research has suggested that many people tend to think about "having sex" within a strictly heterosexual, patriarchical model of insertive sex (Maines, 1999), where a sex act does not fully occur unless PVI happens and is not over until the man orgasms (Jackson & Scott, 2001). Indeed, penetration, another physical reason, was one of the most frequently mentioned themes in our sample (46.3%).

Peterson and Muhlenhard (2007) suggested that some individuals use "motivated definitions," in which the decision about whether or not a behavior counts as sex is

determined by their perception of the potential outcomes from the behavior. Consistent with this, some of our participants wrote that the potential outcome of engaging in the behavior determined whether or not they defined it as sex. Many of these people were referring to physical outcomes (e.g., 18.5% mentioned sexual arousal; others mentioned orgasm, discussed above). Others wrote about situational outcomes, such as pregnancy (4.2%), STDs (5.6%), and virginity loss (2.3%). Outcome-based definitions can easily impact the sexual choices people make. For example, if one believes that only behaviors that can result in pregnancy constitute having sex, they might be quite comfortable engaging in oral sex or anal intercourse, perhaps leaving them at risk for other negative outcomes (Peterson & Muehlenhard, 2007).

Limitations and Future Directions

As with any study, there were several limitations which may affect the generalizability and application of this study's findings. First, the age range was limited. Consistent with previous studies in this area, this was a college-aged sample. It is possible that as people age, their definition of sex changes, or their certainty in defining a behavior as sex may fluctuate. Future studies might test this on an older sample. Further, the study design precluded the inclusion of sexual minorities in the analyses. Though we did not restrict participants to only heterosexuals, our sample consisted of only a small number of sexual minorities. Further, the qualitative data found that sexual minorities did not consider some behaviors to reflect their sexual experiences. Future studies could be more inclusive in the list of presented behaviors, while specifically targeting a larger group of sexual minorities.

These findings suggest important implications for designing future studies. First, researchers should not assume a general understanding of the term "having sex," but should operationally define such a term to ensure homogeneity across participants. Furthermore, research that examines contextual effects on defining various behaviors as sex might consider the presentation order of such information. Finally, the qualitative data in the current study begins to explore why particular behaviors are considered to be "having sex." Future work should explore these reasons quantitatively, as it may provide important information for the prevention of risky sexual decision making.

Conclusion

This study found that the order of behaviors individuals consider from least to most like sex is fairly stable across samples and time. Further, individual difference variables (i.e., gender, religious importance, and sexual experience) did not have much effect on individual's definition of sex. These findings suggest that there seems to be a robust norm concerning people's beliefs regarding which behaviors do and do not constitute having sex, at least at the extremes (e.g., intercourse is almost always called sex while French kissing is not). Previous research allowing participants only a yes-no choice resulted in a number of behaviors (e.g., oral sex) being called sex by some and not sex by significant numbers of others. The two-choice option left the meaning of this result unclear. Providing intermediate choices (i.e., reflecting degree of certainty) revealed that for some physically intimate behaviors, many people are far from certain whether or not the behavior is really sex. This finding of possible uncertainty raises a number of health-related concerns about decision-making and risky behaviors.

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