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Synonyms

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Definition

Sexual fantasies can be defined as "mental imagery that is sexually arousing or erotic to the individual" (Leitenberg & Henning, 1995, p. 470). Sexual fantasizing involves the cognitive process of sexual images and narratives being activated, created, and elaborated upon following internal or external cues. Sexual fantasies can be characterized along several dimensions such as:

• *Arousal*: Sexual fantasies vary in the degree of sexual arousal they elicit in the fantasizer.

- Vividness: Sexual fantasies vary in their vividness in terms of clarity, detail, and sensory richness and, thus, how lifelike and immersive the fantasy feels.
- Modality: A sexual fantasy may emphasize different modes of perception such as sight, smell, sound, touch, and emotion.
- Complexity: A sexual fantasy may be a fleeting thought or an elaborate scenario that involves active fantasizing over an extended period of time.
- Intentionality: A sexual surprise fantasy occurs
 unintentionally, triggered by an external or
 internal cue, and it can be unwanted and intrusive. An intentionally constructed fantasy, on
 the other hand, has at least some components
 that the fantasizer experiences as positive and
 pleasurable, and it is usually more complex.
- Scenario type: A complex sexual fantasy can involve different actors (e.g., current partner/s, known persons, and strangers), various activities (e.g., kissing, cuddling, and vaginal sex), and diverse locations (e.g., bedroom, beach, and bunker). It can also place the fantasizer in different roles within the scenario (e.g., active/dominant participant role, passive/submissive participant role, and observer role).
- Authenticity: A sexual fantasy may be a memory of an authentic past sexual experience (e.g., a particularly arousing sexual activity with one's spouse during a recent vacation) or an imagination of a purely fictional scenario (e.g., group sex on a space station).

- Normativity: Some sexual fantasies involve normative, conventional, consensual, and legal activities (e.g., oral sex between lovers), while others involve nonnormative, deviant, nonconsensual, and illegal behaviors (e.g., incest).
- Behavioral intentionality: Some sexual fantasies involve engagement in actions that the fantasizer clearly rejects in real life (e.g., women's erotic fantasies of being raped), while others reflect desires that the fantasizer might want to fulfill in reality (e.g., daydreaming about future sexual encounters with a new love interest).

For most people in most cultures, sexual fantasies are considered a common and healthy part of the human sexual experience (Lehmiller & Gormezano, 2023). They are closely related to sexual desire and sexual functioning. Sexual fantasies occur during nonsexual everyday activities (general sexual fantasies), during masturbation (masturbation fantasies), and during sexual activity with a partner (intercourse fantasies). Intentionally created sexual fantasies are perceived as positive by the fantasizer and are consciously used to enhance pleasure. People differ in the frequency and themes of their fantasy production due to personal, situational, and environmental factors. Sexual fantasies can help to strengthen an intimate relationship as well as intensify masturbation and intercourse experiences, and can promote orgasm. Many personal sexual fantasies remain private, while others are shared with intimate partners. The media and popular culture increasingly portray sexual fantasies openly in a variety of formats (e.g., erotic stories and novels, pornographic photos and videos). As a result, individuals can now easily access sexual fantasy material on the Internet, including content that is more or less congruent with their personal sexual fantasies and may provide them with inspiration and sexual pleasure.

For some people, however, sexual fantasies are associated with distress, disorder, and social harm, particularly when they act on nonnormative nonconsensual fantasies. Consequently, sexual

fantasies may be the target of therapeutic intervention and media regulation (e.g., prohibition of violent pornography). Under certain conditions, nonnormative sexual fantasies are associated with sexual offending and recidivism among offenders, as well as with the use of illegal pornography (e.g., sexually exploitative material; see Malamuth, 2018). Individuals who have experienced sexual trauma (e.g., child sexual abuse) often report intrusive and unwanted sexual thoughts that may be arousing but still negatively affect their well-being. Arousing sexual fantasies can also cause internal conflict, guilt, and shame in people who feel they should not have such fantasies because of their moral or religious beliefs. Sexual fantasizing can become so excessive that it interferes with an individual's social and sexual functioning, for example, in cases of compulsive sexual behavior disorder.

Introduction

As a multifaceted sexuality-themed cognitive phenomenon, sexual fantasy and fantasizing are related to sexual arousal and play a key role in sexual function and pleasure, as well as in sexual dysfunction and problems (for research reviews, see Critelli & Bivona, 2008; Joyal, 2017; Leitenberg & Henning, 1995; Rossegger et al., 2021; Seehuus et al., 2022).

Established evolutionary and sociocultural theories of human sexuality can be used to explain the causes, contents, and consequences of sexual fantasizing. Three main data collection methods are used to empirically study sexual fantasy: open-ended questions about individual sexual fantasies, standardized questionnaires about known sexual fantasy themes, and content analyses of public sexual fantasy material. Key findings from sexual fantasy research concern the prevalence of different types of fantasies, differences in sexual fantasizing across populations, the role of sexual fantasies in sexual function and dysfunction, and its relevance for sexual offending. The following sections review theoretical perspectives, methodological approaches, and key findings of sexual fantasy research.

Theoretical Perspectives

While evolutionary theories focus on the biological and reproductive origins of sexual fantasies, sociocultural theories emphasize the influence of intrapsychic, interpersonal, and societal factors. Both theoretical perspectives offer valuable insights and, when combined, provide a more comprehensive understanding of the complex nature of sexual fantasies.

Evolutionary Theories

Evolutionary theories suggest that some sexual fantasies in humans may be adaptive and certain features of sexual fantasizing may have evolved because they promoted reproductive success in our human ancestors (Costa, 2022; Ellis & Symons, 1990; Joyal, 2017). Features of sexual fantasies that may be functional and historically improved reproductive success include:

- 1. Sexual motivation: Sexual fantasies that induce sexual arousal can be understood as a motivational factor for both men and women, leading fantasizers to actively engage in mate seeking and greater sexual behavior when in relationships (Birnbaum et al., 2019), two conditions that generally enhance reproductive success. Evolutionary psychologists have expected, and found, that women have more frequent and more arousing sexual fantasies during ovulation (Dawson et al., 2012). In addition, evolutionary theorists have expected, and found, that sexual fantasies are tied with age in ways linked to declining fertility and post-reproductive life (Easton et al., 2010).
- 2. Mental rehearsal and focus: In addition to their motivational function, sexual fantasies can also be seen as a form of mental rehearsal and focused attention for improving real-life sexual encounters. This mental rehearsal and mindfulness may serve to improve sexual performance, reduce anxiety, and increase confidence, thereby improving reproductive success (De Jong, 2009). In particular, fantasizing about past successful and pleasurable

- sexual encounters can be expected to contribute to increased sexual competence.
- 3. Reinforcement of mate selection strategies in women and men: To promote adaptive mate search and acquisition, evolutionary theory predicts that sexual fantasies will be consistent with evolved sex/gender-specific mate selection criteria. According to Sexual Strategies Theory (Buss & Schmitt, 1993), both women and men are designed to engage in long-term pair-bonding and provide significant levels of parental care. However, both men and women can benefit, on occasion, from strategic shortterm mating (e.g., infidelity, mate switching, and mate poaching; Schmitt et al., 2001). When short-term mating, men can maximize their reproductive success by impregnating a large number of women. Consequently, men's short-term mating fantasies are expected, and are usually found, to focus on sexual variety and to contain larger numbers of sexual partners (Ellis & Symons, 1990). In addition, men are predicted to fantasize vividly and visually about copulating with young, fertile female partners, as relative youth is a key cue to women's reproductive value (Conroy-Beam & Buss, 2019). Because women must invest in 9 months of gestation and up to several years of lactation in order to have offspring, generally women will maximize their reproductive success through long-term mating with a resourceful and reliable mating partner who will support them during periods of pregnancy, breastfeeding, and child-rearing. Women's long-term mating fantasies tend to contain men who possess these resource-related attributes. Women's sexual fantasies also focus more on nurturing, intimate interactions with one resourceful male partner. Further consistent with women's preference for an emotionally invested and reliable partner, their fantasies typically focus more on emotional qualities, sound, touch, and location. When fantasizing about short-term mating, women are expected, and are usually found, to fantasize about men who possess high genetic quality, with genetic quality and diversity being one of the key benefits women can secure from

- short-term mating. For some women, especially those with high mate value, they are expected to fantasize about securing a man with the ability and willingness to share resources, but who also possesses high genetic quality (Buss & Shackelford, 2008). In general support of this perspective, evolutionary theorists have documented that the most popular sexual fantasy material is somewhat sex/ gender-specific in the sense of the best-selling male-oriented fantasies are focused on visual pornography that includes youthful and numerous sexual partners, whereas the bestselling female-oriented fantasies are found in romance novels where men of high genetic quality are convinced to become highinvesting partners and to long-term mate with a particular woman (Ellis & Symons, 1990; Salmon & Symons, 2003).
- 4. Reinforcement of sex/gender-specific selfpromotion and competitor derogation: Evolutionary theories of mate choice point to the relevance of sex/gender-specific intra-sexual competition and the need for self-promotion in the sense of demonstrating one's own mate value and/or derogating competitors and their mate value (Schmitt & Buss, 1996). Consequently, it is expected that men and women will engage in sexual fantasies that place themselves in a superior role with respect to their intra-sexual rivals. Accordingly, men are expected to imagine themselves more often in socially and sexually dominant roles with high status and resources, indicating that they can impress women and outperform less resourceful same-sex rivals. Women are expected to imagine themselves more often as the center of admiration and desire, indicating that they can impress men and outperform their less attractive same-sex rivals.
- 5. Reinforcement of polyandrous group sex: To ensure that women's naturally limited number of children will survive and be resourced enough to reproduce themselves, women must collect optimal and diverse genetic material. This can be achieved by short-term mating selectively with high-quality male partners. According to the Sperm Competition Theory

- (Shackelford et al., 2005), it may be rational for women to copulate with several men during ovulation to ensure that only the best sperm with the healthiest genetic material fertilizes her egg. This may be especially true when a woman's current long-term mating partner is of low quality (Dinh et al., 2022). Thus, according to *Sperm Competition Theory*, it is predictable that women would engage in sexual fantasies of polyandrous group sex in order to facilitate this behavior when it is appropriate.
- 6. Substitute for risky and harmful behavior: Sexual fantasies can promote reproductive success not only by motivating and preparing women and men to engage in seeking short- and long-term mates and intercourse, but also by preventing them from engaging in risky and harmful sexual behaviors when doing so would undermine their reproductive success. This is the case when sexual fantasies serve as a substitute for real-life behavior under certain conditions. For example, extra-dyadic sexual fantasies that are not acted out can provide a safe way to enjoy sexual variety without reallife consequences such as relationship breakup and sexually transmitted infections (STIs). Fantasies can also provide a safe outlet for engaging in deviant and illegal sexual behaviors without real-life consequences.
- 7. Coping mechanism to relieve stress: Finally, sexual fantasies can serve as a coping mechanism to relieve stress, boredom, and anxiety. By offering an escape from daily pressures and providing immediate pleasure and relaxation, sexual fantasies, especially those involving masturbation, can improve overall well-being and indirectly support reproductive success by maintaining mental and physical health.

Evolutionary theories posit there is functionality underlying many sexual fantasies—in both their sex/gender-specific content and their contextual activation—that enhances reproductive success by guiding reproductively relevant sexual behaviors. Explanations and predictions regarding the sexual fantasies of gender-diverse individuals and those who engage in same-sex sexual

interactions and relationships may seem beyond the focus of evolutionary psychological analyses of sexual fantasies. However, there are evolutionary theories that have incorporated homosexuality as a specialized context to understand sex/genderspecific patterns of sexual fantasies (Ellis & Symons, 1990; Salmon & Symons, 2003).

Sociocultural Theories

Sociocultural theories suggest that human sexual fantasies serve to satisfy a variety of psychological and social needs and are primarily shaped by cultural influences. While evolutionary theories tend to focus on reproductive success outcomes as a common sculptor of sexual fantasy content and activation, sociocultural theories are much more diverse in their key concepts and assumptions about the origins and functions of sexual fantasies. Relevant sociocultural theories include:

- 1. Sexual Script Theory: Sexual script theory (Simon & Gagnon, 2003) is the main sexual socialization theory that explains various psychosocial influences on sexuality and sexual fantasies. This theory posits that human sexuality follows three types of learned scripts (i.e., ideas about how sexual interactions should proceed) that interact with each other: intrapsychic scripts (mainly shaped by personal development), interpersonal scripts (mainly shaped by interpersonal relationships), and cultural scripts (mainly shaped by cultural norms, religious values, and media role models). Sexual script theory can be combined with other sociocultural theories that focus on selective aspects of intrapsychic, interpersonal, and cultural sexual scripts. Sexual script theory predicts wide variation within women and within men regarding their sexual fantasies due to the multitude of influencing sociocultural factors.
- 2. Psychoanalytic Theory: Psychoanalysis suggests that sexual fantasies are reflections of intrapsychic conflicts and repressed desires. Their primary function is to stabilize the ego. For example, psychoanalysis predicts that early experiences of embarrassment, fear, and failure can lead to fantasies that sexualize the

- event. Such a sexual fantasy then transforms the psychological wound into some sort of pleasurable triumph (e.g., sexual fantasies about being mocked, insulted, degraded, and belittled; Kahr, 2007; Stoller, 1976).
- 3. Learning Theory: According to behaviorism, through the mechanisms of classical and operant conditioning, various objects and actions can be associated with sexual arousal. Such objects and actions then become the content of sexual fantasies. Learning theory can explain normative sexual fantasies (e.g., erotic fantasies of kissing and intercourse) as well as nonnormative fantasies, such as fetish-related fantasies that develop around shoes, rubber, or urination. Learning theory also emphasizes that the repetition of fantasies during masturbation and partnered sexual activity increases the level of arousal associated with those fantasies.
- 4. Cognitive Theory: The dual-process model of sexual thinking (DPM-ST) distinguishes between spontaneous sexual thinking (based primarily on automatic cognitive processes such as associations) and extended sexual fantasizing (based on cognitive elaboration, Bartels et al., 2021). Active sexual fantasizing is consciously directed to achieve a goal (e.g., to increase sexual arousal). The DPM-ST helps to better understand the cognitive processes behind sexual fantasies and their potential for fantasy management and fantasy change (e.g., in cases of high-risk sexual fantasizing related to sexual offending).
- 5. Coping Theory: Psychological coping theory examines how individuals manage stress and cope with life's challenges. While problem-focused coping involves strategies that effectively change the stressor, emotion-focused coping involves strategies that help manage negative emotions. Engaging in sexual fantasies, masturbation, and sexual fantasy materials such as pornography can provide immediate distraction and pleasure. While the use of sexual fantasies may be an adaptive short-term coping strategy, it can become maladaptive in the long run if sexual fantasies are the only or primary means of emotion

regulation and if problem-solving is neglected. In the context of maladaptive coping, sexual fantasies can become an issue of sexual dysfunction and sexual offending, particularly in individuals with childhood trauma and/or mental health problems (Maniglio, 2011).

- 6. Attachment Theory: Attachment theory proposes that individuals' early childhood bonding experiences with their parents shape their attachment styles, which then influence their intimate relationships in adulthood (e.g., secure, avoidant, anxious-ambivalent, and disorganized attachment orientations). Attachment theory predicts that different attachment styles, and the activation of attachment insecurities, will be associated with different frequencies and topics of sexual fantasies (Birnbaum et al., 2012). Attachment avoidance, for example, is predicted to be associated with less frequent intimate sexual fantasies involving a current partner and more frequent extra-dyadic fantasies.
- 7. Social Cognitive Theory: In today's digital society, media representations of sexuality are ubiquitous and cover a wide range of fantasies. Social cognitive theory is a key theory of media effects that predicts that under certain conditions, media users will identify with, internalize, and eventually imitate seemingly attractive and successful media figures. The acquisition, activation, and application model of media sexual socialization (3 AM) was developed as a specification of social cognitive theory and sexual script theory regarding sexual media influence (Wright, 2011). According to 3 AM, sexually explicit media content shapes cognitive schemas about sexuality in three ways: Pornography can promote the creation of new schemas (schema acquisition), it can prime existing schemas (schema activation), and it can facilitate the use of existing schemas to inform attitudes and behaviors (schema application). The 3 AM distinguishes between specific schema effects of pornography (e.g., fantasizing more often about condomless anal sex after observing that exact behavior multiple times in pornography) and abstract schema effects (e.g., fantasizing

- more about diverse sexual practices and multiple partners after observing a variety of people regularly engaging in unrestricted sex in pornography).
- 8. Queer Theory: Queer theory examines and challenges normative understandings of sexuality and gender. It seeks to deconstruct simple binary categories that constrain sexual and gender identities (e.g., heterosexual versus homosexual and female versus male) and advocates for a more fluid and inclusive understanding of sexuality. When applied to sexual fantasies, queer theory provides a framework that emphasizes the subversive content and potential of fantasies. For example, queer theory predicts that heterosexually identified women and men often have same-sex fantasies, that homosexually identified women and men often have mixed-sex fantasies, and that fantasizers eroticize not only biological men and women but also nonbinary and trans individuals and their bodies. The increasing visibility of sexual and gender diversity in sexual fantasy material and in sexual fantasy survey data is consistent with such predictions (e.g., Lehmiller & Gormezano, 2023).
- 9. Feminist Theory: With the ultimate goal of achieving gender equality in society, various strands of feminist theory challenge mechanisms that contribute to hierarchical gender relations and perpetuate gender inequality and gender-based violence. Sexual fantasies and their media representations in pornography are seen by radical feminist theories as an important means of affirming, normalizing, and glorifying men's roles as sexual actors and aggressors and women's roles as mere sexual objects and targets of aggression. According to intersectional feminist theories, sexual fantasies and their media representations in pornography link sex/gender to other dimensions of social inequality such as race/ ethnicity, dis/ability, body type, or age. Thus, intersectional feminist theories not only challenge the fact that women are so often portrayed, talked about, and fantasized about as submissive sexual objects, which is thought to fuel sexism, but also that sexual imagery

promotes sexual stereotypes that, for example, fuel racism through tropes of extra-submissive Asian women or well-endowed and sexually driven Black men. At the same time, intersectional feminist theories predict that more empowering sexual fantasies exist and can be supported by corresponding feminist pornography. Such feminist media depictions of women in more powerful, diverse, and agentic sexual roles may promote correspondingly diverse sexual fantasies in viewers (Liberman, 2015).

The predictions of sociocultural theories are often similar to those of evolutionary theories but differ in their explanations and conclusions. For example, the prominent role of dominant and aggressive male sexual actors in sexual fantasies and in sexual fantasy material can be interpreted as both a reflection of sex/gender-specific reproductive strategies and/or societal gender norms (Buss & Schmitt, 2011). Both evolutionary theories and sociocultural theories suggest that there is room for plasticity and flexibility in sexual fantasizing as biological, psychological, and social factors combine in complex ways to shape sexual fantasy experiences. However, sociocultural research tends to be more critical of the status quo of sexual fantasies, focusing on their contribution to social inequality and thus promoting individual and collective change toward sexual fantasies and sexual fantasy material that are supposedly more in line with social justice, equality, and inclusivity. The extent to which sexual fantasies can and should be changed on an individual and collective level is both a question of feasibility and ethical considerations (Malamuth, 2018).

Methodological Approaches

Research on sexual fantasies uses a variety of methodological approaches to collect data on the characteristics of sexual fantasies and their associations with relevant background and outcome variables (e.g., personality traits, sexual behaviors, and sexual satisfaction). To address the cognitive and emotional components of sexual

fantasies, it is clear that self-report data play a crucial role. However, to fully address the sexual arousal component, it is also useful to include physiological measures such as heart rate, testosterone level, brain activity, or genital vaso-congestion before, during, and after sexual fantasy production and/or exposure to sexual fantasy material.

Most research in the area of sexual fantasy is correlational, making it impossible to determine the direction of causal pathways. For example, correlations between sexual fantasies and various sexual activities may mean that sexual fantasies lead to certain sexual behaviors, but it is also possible that certain sexual activities lead to related fantasies. Only longitudinal study designs that analyze temporal patterns in changes in fantasies and behaviors, or experimental and intervention studies that demonstrate effects, can provide clarity about causality. For example, researchers and practitioners disagree about whether congruence between pornographic content and an individual's sexual fantasies means that (a) the pornographic content shaped the fantasy content or (b) the preexisting fantasies guided the selection of pornography. Self-reports of pornography users suggest a bidirectional process: In an online survey among about 4000 US adults, 16% of pornography users reported that their favorite sexual fantasy was based on something they had observed in pornography, while 81% reported that they had sought out pornography depicting their favorite fantasy (Lehmiller & Gormezano, 2023). However, self-reports can be biased.

It is also important to consider that people who volunteer for sexual fantasy research and are willing to disclose their private fantasies to researchers may differ systematically (e.g., in their sexual openness) from the general population. In addition, the private and controversial nature of nonnormative fantasy topics may encourage socially desirable response patterns, in the sense that study participants may overshare conventional and undershare unconventional fantasy topics. Such limitations regarding self-selection of participants and selective self-reporting are not unique to sexual fantasy research but affect sex research in general. Therefore, it is

important to consider such limitations when designing studies and interpreting results (Seehuus et al., 2022).

There are three main methodological approaches to collecting data on the content and production of sexual fantasies that can be implemented in a variety of experimental and nonexperimental, cross-sectional, and longitudinal study designs: (1) open-ended questions about individual sexual fantasies, (2) standardized questionnaires about known fantasy themes, and (3) content analyses of public sexual fantasy material.

Open-Ended Questions About Sexual Fantasies

Participants can be asked to describe their sexual fantasies (e.g., their favorite masturbation fantasy) in their own words. Open-ended questions about sexual fantasies can be used in both oral interviews and written questionnaires. The reported fantasies provide rich and highly individual verbal data that can be content analyzed and interpreted in light of background information about the respondents (e.g., their sexual history and their current sexual behaviors).

Open-Ended Questions

To elicit descriptions of individual sexual fantasies, participants can be asked to describe a recent or favorite sexual fantasy using the following prompt (Zurbriggen & Yost, 2004, p. 290):

Think of a sexual fantasy that you may have recently had, and write about it in the space below. You can write about the first one that comes to mind, or, if you think of several, write about one that is common for you, or that is one of your favorites. Again, it is very important that you be as detailed as possible. What is the scene? What is your role? What are the series of events? Who is doing what to whom? What are you thinking and feeling? Please be as concrete and detailed as you can, while letting the fantasy flow along freely. Remember, you are writing anonymously, so feel free to write anything you like.

To elicit sexual fantasies that are directly comparable, the *imagined social situation exercise* (ISSE) can be used, which includes a series of eight open-ended questions designed to elicit the

elaboration of a fantasy about a sexual encounter with an attractive new partner (Goldey et al., 2014, p. 923):

Imagine that you have met a person who is sexually attractive to you, and you and this person decide to engage in sexual activity together. You find your sexual partner very attractive, and you enjoy the sexual activity very much. Consider your sexual partner, your feelings of attraction, how you start being sexual, and the sexual activity itself.

- Describe your sexual partner as vividly as possible. Feel free to include physical characteristics, personality traits, etc.
- 2. Describe your feelings of attraction toward this person.
- 3. Describe the location of your interaction with this person and how you feel being in this location.
- 4. Describe the situation and background events leading up to the sexual activity.
- 5. How do you and your sexual partner start being sexual together?
- 6. Describe the sexual activity itself.
- 7. What about this interaction makes it sexually arousing for you?
- 8. Please describe any other details and/or aspects of the interaction not included in your responses to the above questions.

Open-ended questions prompting sexual fantasy descriptions can be modified according to the research objective (e.g., participants can be asked to describe a fantasy with their current partner versus a stranger).

Example Study

Descriptions of sexual fantasies were collected from 122 respondents during 5-h in-depth clinical interviews (Kahr, 2007). Based on psychoanalytic theory, individual fantasy content could be associated with different types of childhood trauma.

Limitations of This Methodological Approach

Sexual fantasies can be intricate, prolonged, and rich in sensory detail. Therefore, depending on their verbalization skills, respondents may be challenged to put all the details of their sexual fantasies accurately and completely into words. Writing about a sexual fantasy (as opposed to talking about it in an interview) provides more

privacy and is less confrontational, but requires advanced writing skills.

Standardized Questionnaires on Sexual Fantasy Themes

Rather than asking participants to describe their sexual fantasies in their own words, standardized lists of known sexual fantasy themes (e.g., "giving oral sex," "receiving oral sex," "forcing someone to have sex," and "being forced to have sex") can be provided to allow participants to indicate their experiences with each fantasy theme on closedended response formats. For example, participants can indicate whether they have ever had a sexual fantasy involving such a topic (e.g., response format: yes/no), how often they have such a fantasy (e.g., frequency rating scale: 1: never to 5: daily), or how often they think about the topic during nonsexual everyday activities, masturbation, and intercourse. In addition, participants may be asked whether they have ever actually performed the fantasized acts, whether they would like to do so in the future, and how arousing they find the fantasy. Such quantitative sexual fantasy data can be collected in large surveys along with relevant background and potential outcome variables.

Standardized Questionnaires

Several standardized sexual fantasy questionnaires are available, for example:

- Wilson Sex Fantasy Questionnaire (WSFQ; Wilson & Lang, 1981): 40 sexual fantasy themes grouped into 4 fantasy types: (1) exploratory (e.g., mate-swapping), (2) intimate (e.g., passionate kissing), (3) impersonal (e.g., sex with strangers), and (4) sadomasochistic (e.g., being forced to have sex).
- Female Sexual Fantasy Questionnaire (FSFQ; Meuwissen & Over, 1991): 112 sexual fantasy themes grouped into 5 fantasy types: (1) genital (e.g., a partner stimulates your genitals manually), (2) sensual (e.g., you cuddle with a partner), (3) sexual power (e.g., you seduce a man who is a virgin), (4) forbidden sexual activity (e.g., you take part in group sex), and (5) sexual suffering (e.g., you are being raped by a man).

Erotic Fantasy Inventory Scale (Subscale 3 of the Sexual Desire and Erotic Fantasies Questionnaire SDEF-3; Nimbi et al., 2023): 120 erotic fantasy themes grouped into 6 fantasy types: (1) romantic (e.g., kissing a partner), (2) top/active role (e.g., having vaginal intercourse with an insertive role [top/active; with penis or sex toy]), (3) bottom/passive role (e.g., having vaginal intercourse with a receptive role [bottom/passive; with penis or sex toy]), (4) physical and contextual (e.g., engaging in sexual activities in a place where you risk getting caught), (5) BDSM (e.g., being choked/controlled in the breath by the partner), and (6) taboo (e.g., engaging in sexual activity with a child or preadolescent).

Depending on the research goal, it may not always be necessary to measure a broad range of fantasy topics; focusing on selected items or subscales of the questionnaires can be sufficient. For longitudinal studies, a small number of relevant standardized fantasy questions and related variables (e.g., sexual activity, physical activity, and mood) can be used to create a *research diary* that participants complete daily over several weeks.

In addition to fantasy topics, it is also relevant how fantasizers use and evaluate their fantasies. The *Sexual Fantasy Experience Scale* (SFES; Hasson & Ginzburg, 2024) measures fantasy experience on five subscales: (1) playfulness (e.g., I let my imagination run wild when I fantasize sexually), (2) boundlessness (e.g., In my sexual fantasies, my character changes to the point where I am no longer recognizable), (3) functionality (e.g., I have to fantasize in order to stay present in the sexual activity I'm involved in), (4) intrusiveness (e.g., I fantasize about sexual experiences that make me feel bad), and (5) shame (e.g., My sexual fantasies cause me to feel shame or guilt).

Example Study

A British study compared fantasy themes measured by the WSFQ in three groups of men: (a) convicted sexual offenders (n = 59), (b) convicted nonsexual offenders (n = 74), and

(c) non-offenders (n = 71; Turner-Moore & Waterman, 2023). Men in all three groups reported intimate fantasies as their most frequent sexual fantasies. At the same time, men in all three groups also reported having exploratory, impersonal, and sadomasochistic fantasies, although less frequently.

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Limitations of This Methodological Approach

Standardized fantasy measures do not address whole fantasy scenarios or narratives with their specific dynamics. Instead, they assess separate themes or topics. As a result, much information about individual fantasies is lost: Respondents who have such diverse fantasies as mutual oral sex with their current partner, being forced to give oral sex to a stranger, or fellating a child would all check the "giving oral sex" item on the WSQF. The various standardized fantasy scales show that researchers have not yet reached consensus on the number and labels for fantasy themes and types. Older questionnaires are often heteronormative (e.g., the FSFQ classifies same-sex fantasies as "forbidden sexual activity fantasies"). Issues of validity and currency, however, are not unique to standardized sexual fantasy measures. They can be addressed through thoughtful instrument selection and efforts to revise existing measures to improve their psychometric quality and inclusivity (e.g., the SDEF-3 uses inclusive language around intercourse to avoid heteronormativity).

Content Analyses of Public Sexual Fantasy Material

Rather than asking participants to describe their individual sexual fantasies or to report their experiences with predefined sexual fantasy themes, researchers also use public sexual fantasy material as a proxy for private sexual fantasy content. On a collective level, it can be argued that erotic stories or pornographic videos produced to sexually arouse audiences must necessarily reflect popular sexual fantasies. If erotic or pornographic media content did not resonate with the audience's sexual fantasies, readers and viewers would most likely find the media content not arousing, but boring, confusing, or repulsive. Collecting public sexual fantasy material and analyzing its

dynamics and themes promises insights into sexual fantasies.

Content Analysis Strategies

Three different techniques can be used to analyze sexual fantasy material: (1) qualitative media content analysis based on inductive coding, (2) manual quantitative media content analysis based on a standardized codebook, and (3) automatic quantitative (i.e., computational) media content analysis based on a computer algorithm.

Example Qualitative Studies

The worldwide success of the erotic novel trilogy "Fifty Shades of Grey" (FSOG) by British author Erika Leonard (pseudonym E.L. James), especially among female audiences, has raised the question of whether and why contemporary women's erotic fantasies might be consistent with a stereotypical story of a sexually experienced, powerful, rich man (Christian Grey) who seduces and sexually dominates a young, virginal woman (Anastasia Steele). While this fantasy narrative is consistent with evolutionary predictions of sex/gender-specific mate selection, it seems to conflict with ideals of gender equality. Feminist scholars from the sociocultural field have provided various qualitative interpretations of FSOG as sexual fantasy material: Some researchers criticize FSOG as a dangerous misrepresentation of female desire and condemn it as a story of intimate partner violence (e.g., Bonomi et al., 2013). Others read FSOG as a benevolent celebration of female and feminist sexual pleasure (e.g., Dirks, 2018). Still other scholars note the ambivalence that the fantasy story is "amusing, entertaining, and pleasurable" but at the same time troubling because of its adherence to "traditional, heteronormative, and dominant patriarchal ideals of women's sexuality" (Parry & Light, 2014, p. 39).

Example Quantitative Study

A manual quantitative content analysis of N=300 pornographic scenes from three pornographic subgenres (male-centered mainstream pornography, for women pornography, and feminist pornography) looked at indicators of sexual

objectification versus sexual agency (Fritz & Paul, 2017). Results show that feminist pornography more often depicts women as sexually agentic (i.e., initiating sex, touching their clitoris during intercourse, and achieving orgasm) compared to the other subgenres. Given that feminist pornography is produced by and for women with an empowering impetus, one can speculate whether female viewers of feminist pornography already have or will develop more sexual fantasies that feature themselves in agentic sexual roles.

Example Computational Study

All N=296,884 sexual fantasy stories from an online erotic story platform (such as Literotica. com) were downloaded and automatically analyzed using a theme extraction software tool (Seehuus et al., 2019). The researchers identified 66 fantasy themes represented in the stories, some of which reflect fantasy themes covered by fantasy theme questionnaires (e.g., sensuality, genital, and BDSM) and some of which are not covered by said questionnaires (e.g., sleep/wake, food/drink, and automotive). The results suggest that fantasy theme questionnaires may still be too limited in their thematic scope to cover the variety of individuals' sexual fantasies expressed in erotic stories.

Limitations of This Methodological Approach

While public sexual fantasy material is related to private sexual fantasy, there are also notable differences: Pornographic content distributed and marketed on the Internet is constrained by a variety of practical conditions, such as the recruitment of performers, the production environment, economic factors, and national laws. Not all fantasies that people engage in can be represented in public fantasy material, especially not in strictly regulated video pornography. And not all publicly available pornography may accurately reflect the preferences of different types of audiences (e.g., women's sexual fantasies may be underrepresented because the pornography industry has traditionally catered to male consumers). In addition, similar to the problems with standardized fantasy questionnaires discussed above, researchers have not yet reached consensus on standardized codebooks for major types and themes of pornography. For example, pornography researchers disagree on when to code a pornographic scene as aggressive, violent, or degrading. While some scholars decide that certain sexual acts must be inherently aggressive, violent, or degrading (e.g., spanking, slapping, and choking), others argue that aggression, violence, or degradation should only be coded if the pornographic scene presents the acts as nonconsensual or unwanted by the passive/receiving part (Döring & Miller, 2022). Such controversies lead to heterogeneous results: Prevalence rates of "violence" in public sexual fantasy material range from 2% to 88% (Miller & McBain, 2021, p. 376).

Key Results

Key findings in sexual fantasy research concern (1) the prevalence of different types and themes of fantasy, (2) differences in sexual fantasizing across populations, (3) the role of sexual fantasy in sexual function and dysfunction, and (4) the relevance of sexual fantasy in sexual offending.

Prevalence of Different Sexual Fantasies

The lifetime prevalence of experiencing sexually arousing thoughts during the day, during masturbation, and during partnered sexual activity is reported to be about 95% (Leitenberg & Henning, 1995, p. 490).

Although sexual fantasizing is ubiquitous, individuals vary considerably in the frequency with which they fantasize about different topics. The type of fantasy that is most consistent with individual and societal expectations is sexual thoughts about lovemaking with one's current partner. Such fantasies, which can enhance pair bonding, desire, and intimacy, are well accepted and widespread in the general population: In a Canadian survey of N = 1516 adults (53%) women and 47% men), the vast majority of respondents (about 90% prevalence) reported having sexual fantasies involving romantic feelings; no other fantasy topic was more popular, and almost no topic was reported to be more arousing (Joyal et al., 2015, p. 334). Fantasies about being

masturbated by one's partner were more intense and more popular among respondents (about 70% prevalence) than fantasies about being masturbated by a stranger (Joyal et al., 2015, p. 334).

Extra-dyadic fantasies about sexual activity with third parties and fantasies about unconventional, deviant, or illegal sexual activity are more controversial and can be met with moral concern, religious condemnation, and individual feelings of shame and guilt. In some contexts, thinking about extra-dyadic sex is considered to be unfaithfulness. However, research shows that promiscuous and deviant sexual fantasies are also prevalent in the general population. For example, more than 50% of adult participants in the Canadian survey mentioned above reported fantasies about sex with strangers and with celebrities, and about 30% reported fantasies about being spanked or whipped and forced to have sex (Joyal et al., 2015, p. 334).

Population Differences in Sexual Fantasizing

Sexual fantasy differences between women and men have received the most attention from researchers. Studies have repeatedly emphasized that men report more frequent sexual fantasies and a preference for themes of promiscuity and deviance, while women report less frequent sexual fantasies and a preference for themes of intimacy and romance (Leitenberg & Henning, 1995; Buss & Schmitt, 2011). This pattern of results is consistent with the predictions of both evolutionary and sociocultural theories.

However, a closer look at the empirical data reveals that sex/gender differences are often accompanied by similarities. For example, among Canadian adults, sexual fantasies with romantic feelings were the most common (92%) and most intense (M=5.53 on a 7-point scale) sexual fantasies reported by women (Joyal et al., 2015, p. 334). While romantic feelings were not the most popular fantasy topic among men, romance-themed fantasies were still very common (88%) and intense (M=4.85) among them. Having sex with two women was a popular (85%) and intense (M=5.31) fantasy theme among men. While fantasies of promiscuity were less frequent among women, they were still common

and diverse: many women reported fantasies of sex with two men (57%) and more than two men (28%), and also with two women (37%) and more than two women (25%; Joyal et al., 2015, p. 334). These data show that it may be too simplistic to characterize women's sexual fantasies as romantic and partner-oriented, and men's sexual fantasies as promiscuous and deviant. Consumer reports from leading pornography platforms show that, contrary to earlier assumptions (e.g., Ellis & Symons, 1990), many women use not only textual but also visual sexual fantasy material with so-called gangbang scenarios (i.e., group sex between one woman and several men) among their favorite pornographic themes (PornHub, 2023).

The increasing visibility of LGBTQIA+ individuals in society is reflected in sexual fantasy research, which more often includes gender and sexuality diverse samples (Lehmiller Gormezano, 2023). Individuals on the ACE (asexuality) spectrum report significantly lower rates of sexual fantasy. Lesbian, gay, and bisexual individuals report more fantasies about same-sex partners and a preference for BDSM-themed fantasies, which may indicate an interest in transnormative notions of sexuality. gressing Nonbinary and trans individuals are more likely to fantasize about nonnormative genitalia. The growing new subgenre of authentic trans pornography reflects such fantasies. Accordingly, recent research suggests "exploring one's gender and/or sexual identity or expression" as an additional sexual fantasy type that has been neglected by previous sexual fantasy questionnaires (Lehmiller, 2020; Lehmiller & Gormezano, 2023).

Conscious engagement in sexual fantasies and the use of sexual fantasy materials are common in adolescents and adults. A decline in sexual fantasizing is reported in older age, which may be a generational and/or an aging effect. Sexual fantasizing in preadolescent children has not been well studied. People with certain personality traits (e.g., high sex drive, fantasy proneness, and openness to new experiences) report more fantasies, more vivid fantasies, and more diverse fantasies. Religiosity appears to be associated with more

negative attitudes toward sexual fantasies and more feelings of shame and guilt related to sexual fantasizing (Leitenberg & Henning, 1995). Both sex offenders and non-offenders report normative and nonnormative sexual fantasies (Turner-Moore & Waterman, 2023). However, fantasies related to sexual offending are more prevalent in offenders than in non-offenders.

Sexual Fantasies' Role in Sexual Function and Dysfunction

Given the critical role of sexual pleasure in sexual health, sexual fantasy is considered a healthy component of human sexuality. Sexual fantasies enable the experience of sexual pleasure in everyday life, during solo, and partnered sexual activities. The ability and willingness to engage in sexual fantasy can enhance sexual arousal and orgasm during solo and partnered sexual activity. The role of sexual imagery in supporting sexual function, such as orgasm, may be particularly important for people in long-term relationships and in later life, when strong and spontaneous sexual desire is often diminished. Men and women are equally likely to report using fantasies to spice up sexual intercourse (Seehuus et al., 2022).

Engaging in sexual fantasies involving a current sexual partner can increase sexual attraction and desire for that partner, improving relationship quality and sexual satisfaction. Sharing personal sexual fantasies between intimate partners has been reported to increase intimacy and sexual satisfaction, especially when partners find ways to integrate fantasies into their partnered sexual activities (e.g., through sex talk, sexual role-playing, shared consumption of sexual fantasy material, and/or sexual exploration with third parties and/or unusual places and/or novel sexual techniques).

However, sexual fantasies can also be experienced as unpleasant and distressing and can interfere with sexual functioning. Intrusive sexual thoughts related to past trauma or sexual fantasies that evoke guilt and shame in the fantasizer may motivate individuals to avoid further sexual fantasizing and even to withdraw from sexual activity. Sexual fantasies can also undermine intimacy,

for example, when disclosure of certain fantasy themes is met with rejection and shaming by the partner. Therapeutic intervention can help individuals better understand, accept, and integrate their own and their partners' sexual fantasies (Newbury et al., 2012). Contrary to earlier beliefs that inevitably associated nonnormative sexual fantasies with pathology or dangerous deviance, entertaining fantasies of sexual dominance and submission, rough sex, raping or being raped, for example, can also be understood as benign expressions of unhinged passion and a desire to transgress societal norms in the safe space of one's own thoughts (Critelli & Bivona, 2008).

Compulsive involvement in sexual fantasies, accompanied by excessive masturbation and/or problematic pornography use, can impair social and sexual functioning. Therapeutic intervention must address the cause of this dysfunctional preoccupation with fantasies (e.g., obsessive-compulsive disorders) and promote the use of more functional coping strategies.

Sexual Fantasies' Relevance in Sexual Offending

Nonnormative sexual fantasies per se are not considered a predictor of sexual offending. Rather, nonnormative fantasies become a risk factor only under certain conditions. According to the dualprocess model of sexual thinking (Bartels et al., 2021), it is not the content of the fantasy alone but rather the process of sexual fantasizing that links deviant fantasies to sexual offending (Allen et al., 2020; Rossegger et al., 2021): Recurrent use and preoccupation with an offense-related fantasy is considered problematic in the sense of increasing acting out, whereas fleeting thoughts or infrequent engagement in such fantasies is considered less problematic. In addition, strong sexual arousal related to the fantasy, early traumatic experiences, psychological problems in the form of psychiatric diagnoses and emotional problems, dysfunctional coping strategies, as well as offense-supporting beliefs (e.g., that women "ask for it" or that children enjoy sex with adults) create conditions that can lead to the acting out of deviant fantasies (Allen et al., 2020; Maniglio, 2011; Rossegger et al., 2021).

Because multiple factors contribute to sexual offending, prevention and intervention efforts must address multiple factors and may combine different approaches (e.g., pharmacotherapy, cognitive-behavioral therapy, and psychoanalytic therapy). High-risk sexual fantasizing is considered one causal factor among others. Various approaches to the diagnosis and treatment of high-risk sexual fantasizing in sex offenders are discussed. The behavioral approach addresses masturbation practices and includes masturbation reconditioning (i.e., switching from deviant to nondeviant fantasies shortly before masturbatory orgasm to make nondeviant fantasies more arousmasturbation directed ing over time), (i.e., masturbating to nondeviant fantasies guided by prepared scripts and visual aids to make nondeviant fantasies more arousing over time), and masturbatory satiation (i.e., continuing masturbation with deviant fantasies after orgasm for an extended period of time so that the deviant fantasies become associated with feelings of boredom, fatigue, and discomfort). The cognitive approach addresses thought processes. For example, clients may be asked to make certain eye movements while entertaining a deviant sexual fantasy. Taxing working memory with eye movements can lead to a reduction in fantasy vividness and arousal. The mindfulness-based approach can help clients learn to be a neutral observer of their sexual fantasies so that they lose their motivational power. However, evidence to guide treatment planning specifically for the management of high-risk fantasizing in sexual offenders remains limited (Allen et al., 2020; Maniglio, 2011; Rossegger et al., 2021).

Conclusion

In light of evolutionary and sociocultural theories and related empirical evidence, sexual fantasies can be considered a ubiquitous, functional, and healthy element of human sexuality. Even non-normative fantasies are regarded normal because of their prevalence in the general population and their lack of predictive value for offending. Sexual offenders and non-offenders generally show small

to negligible differences in their engagement in both normative and nonnormative sexual fantasies. They do, however, differ in their engagement in offense-related fantasies and in their way of fantasizing about deviant acts.

While the interdisciplinary field of sexual fantasy research is growing, there are still many research gaps to be filled. Regarding theoretical conceptualizations, there is a broad consensus that various evolutionary and sociocultural theories contribute to the explanation of sexual fantasies and their role in sexual functioning. However, the relevance of different factors remains unclear, as causal analyses and direct comparisons of effect sizes are mostly lacking. For example, to what extent does female-oriented text-based sexual fantasy material (e.g., Döring, 2021) reflect women's disinterest in visual fantasy, or rather the cultural and economic conditions that have long prevented women from producing and marketing femaleoriented visual pornography?

Conceptual frameworks that attempt to systematically integrate key concepts and theories from evolutionary and sociocultural research fields are also lacking. For example, there is no integral conceptual model that can predict in detail the conditions under which a particular sexual fantasy theme will lead to sexual arousal, indifference, or aversion in various populations.

Theoretical explanations and longitudinal data on spontaneous and intentional changes in sexual fantasy contents and sexual fantasizing processes are largely lacking. However, researchers and practitioners from a variety of fields are targeting sexual fantasy management. For example, clinicians working with forensic clients strive to reduce their engagement in offense-related fantasies while promoting normative fantasies. Feminist and queer clinicians focus on encouraging empowering sexual fantasies in their clients. Additionally, queer and feminist activists produce queer and feminist visual pornography in the hopes of inspiring larger populations to open up to more diverse sexual fantasies and possibly also behaviors.

A persistent problem in sexual fantasy research is the lack of consensus on major fantasy types and themes, reflected in the proliferation of

heterogeneous questionnaires for surveys and heterogeneous codebooks for the analysis of sexual fantasy material. Similar to many other fields, the generalizability of findings from sexual fantasy research is limited by the over-reliance on samples from WEIRD (white, educated, industrialized, rich, and democratic) populations, particularly samples of college students from North America. More cross-cultural research is needed.

In the age of digital technologies and artificial intelligence, an area of growing interest and concern is the intersection between sexual fantasies and sexual fantasy products, such as pornography in its many forms (e.g., text, audio, video, and virtual reality, generated by artificial intelligence) and haptic fantasy devices (e.g., sex dolls and sex robots). The growing acceptance of nonnormative sexual fantasies is not accompanied by a growing acceptance of nonnormative sexual fantasy products; instead, we observe a global trend toward legal regulation of nonnormative sexual fantasy materials and devices (e.g., bans on "extreme pornography" and on child-like sex dolls; Desbuleux & Fuss, 2023). Researchers and practitioners disagree about whether, when, and for whom nonnormative sexual fantasy products pose a danger by normalizing and promoting nonnormative behavior, and under what conditions such products can provide an outlet for nonnormative fantasy that might prevent problematic and harmful real-life behavior.

Cross-References

- ► Adolescence: Puberty and Sexual Fantasies
- ► Age Factors: Sexual Fantasies
- ► Aggression: Sexual Fantasies
- ► Anxious Attachment: Rape Fantasies
- ▶ Big Five Personality Traits: Sexual Fantasies
- ► Childhood Abuse/Neglect: Sexual Fantasies
- ► Cross-Cultural Comparisons: Sexual Fantasies
- ► Cuckoldry: Sexual Fantasies
- ▶ Dominance, Male: Sexual Fantasies
- ► Erectile Dysfunction, Sexual Fantasies
- ► Freudianism/Sigmund Freud: Sexual Fantasies
- ► Group Sex, Sexual Fantasies
- ► Guilt Feelings, Sexual Fantasies

- ► Narcissism: Sexual Fantasies
- ► Orgasm: And Sexual Fantasies
- ▶ Rape and Coercion: Sexual Fantasies
- ► Sex Differences: Sexual Fantasies
- ► Sexual Arousal and Sexual Fantasies
- ► Sexual Fantasies and Sexual Functioning/ Desire
- ► Sexual Fantasies: Common and Uncommon
- ► Sexual Fantasies: Evolutionary Perspectives
- ► Sexual Fantasies: Motivational Factors
- ► Sexual Fantasies: Role in Sexual Offending
- ► Sexual Fantasies: Sexual Satisfaction
- ► Sexual Fantasies: Spirituality and Mysticism

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