



UNDERSTANDING COMPLEXITIES OF GENDER IDENTITIES AND SEXUAL ORIENTATION

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Abstract: This It is a prevalent misunderstanding that gender identity and sexual orientation are synonymous. Many people assume that just because someone is transgender, they must also be gay. But in reality, this is not the true. The concepts and definitions of sexual orientation and gender identity are constantly developing. Gender and sexuality are not synonymous, and this is a crucial distinction to understand. Gender identification is how you define yourself in respect to your own gender, whereas sexual orientation is how you define yourself in terms of the individuals you love and/or are attracted to. Keeping this view in mind recent research studies are focused on non-pharmacological strategies to delay cognitive decline. The present review aims to understand the terminologies of various complexities related to sexual orientations and gender identities and it also highlight the research evidences that show the causes of such complexities in humans. Various studies showed that biological factors play significant role in such complexities and evidences for environmental and social factors do not hold that much significance.

Index Terms - Sexual orientation, Gender identity

I. INTRODUCTION

Gender identity and sexual orientation are both significant parts of a person's sexual identity. (Roselli2018). These represents two fundamental functions in human neurobiology (Savic *et. al.* 2010). Understanding and expressing sexual orientation and gender, as well as forming related identities, are typical developmental tasks for children and adolescents. Some teenagers, for example, may be unclear of their sexual orientation, whilst others have known and displayed it since childhood. Expressing and exploring gender identity and roles is a part of normal development. Defining and identifying sexual orientations in order to construct representative samples of homosexuals, bisexuals, and heterosexuals is unclear and confusing to researchers. Since the 1860s, when sexual orientations first received broad scholarly interest, various definitions and measurements have been suggested and used to construct samples. (Sell 1997). Unfortunately, the definitions and measurement tools and procedures that have been in use since mankind have resulted in the selection of divergent and incomparable samples. The standardization of definitions and measures related to different sexual orientations and gender identities is of vital importance if progress in understanding this area of research is to be made. This paper examines and evaluates definitions and causes of sexual orientation and gender identity proposed and utilized by researchers throughout the last century. This review aims to expand our understanding of this topic and encourage researchers to be careful of how they classify subjects based on various sexual orientations and gender identities.

When we try to understand the causes of such complexities, we end up getting a number of theories which are aimed to define the etiology of differences in sexual orientation and gender identity but no causal theory of sexual orientation has yet gained widespread support. It is difficult to examine the most scientifically convincing causal hypotheses. There is, however, considerably more evidence supporting nonsocial factors of sexual orientation than social causes. Individuals' political attitudes towards sexual orientation likely to be related to their beliefs about the reasons of sexual orientation. Those with favorable attitudes (those who believe there is nothing inherently wrong with nonheterosexuality or its open expression) have a tendency to believe that sexual orientation is determined by nonsocial factors such as heredity. Those who hold negative attitudes (that nonheterosexuality is unpleasant or immoral, and that society should limit its free expression) have a tendency to assume that homosexuality has societal roots, such as early sexual encounters and cultural acceptance of nonheterosexuality. These are referred as the "nonsocial" and "social" hypotheses, respectively. Both hypotheses require direct scientific support; neither can claim confirmation purely on the basis of the other's lack of evidence (Bailey *et. al.* 2016). Understanding and expressing one's sexual orientation and gender identity is unique to an individual. Personal, cultural, and social variables may all influence how one expresses their sexual orientation and gender identity.

Sexual orientation is an important, fundamental trait that has been scientifically understudied due to its political sensitivity. This is a blunder. In fact, the more politically controversial a topic, the more important it is for the public to understand it in a revealing and unbiased manner (Bailey *et. al.* 2016). This article has been written in an attempt to make progress towards that goal.

So, the purpose of this review is to understand the terms related to gender identity and sexual orientation, understanding the difference between these two terms and also analyzing the causal theories of differences in sexual orientation and gender identity.

What is sexual orientation?

Sexual orientation is a crucial part of an individual's identity that includes "a person's sexual and emotional attraction to another person and the behavior and/or social affiliation that may result from this attraction" (APA, 2015a, p. 862). These days, the terms 'lesbian' and 'gay' refer to persons who are attracted to people of the same sex, whereas the term 'bisexual' refers to those who are attracted to people of both sexes. Although these categories are still extensively used, sexual orientation does not always appear in such distinct and definable categories and typically occurs on a continuum (American Psychological Association, 2012) and people who are regarded or described as LGBTQIA by others may identify themselves in a variety of ways (D'Augelli, 1994).

Sexual orientation can be viewed as having a direction. For people who identify as sexual or demisexual, their attraction then may be directed toward people who are similarly gendered, differently gendered, and so on. That is, sexual orientation indicates the gendered directionality of attraction, even if that directionality is very inclusive (e.g., non-binary). Thus, a person might be attracted to men, women, both, neither, masculinity, femininity, and/or to people who have other gender identities such as genderqueer or androgynous, or a person may have an attraction that is not predicated on a perceived or known gender identity. There are various forms of sexual expression, even though heterosexual identities, behaviors, and attractions seem to be the dominant ones and socially acceptable. Some of the major ones are defined below –

Different forms & terminologies related to sexual orientation

Asexual

A person who identifies as asexual does not experience sexual attraction or has little interest in sexual behavior. They are also known as 'aromantic' or 'ace'.

Allosexual

A person who does experience sexual and romantic attraction to someone. It is the opposite of asexual. An Allosexual person is also known as 'Zedsexual'.

Bisexual

A bisexual is a person who is sexually and emotionally attracted to people of both sexes.

Heterosexual

A person who is sexually and emotionally attracted to people of opposite sex is known as heterosexual.

Homosexual

A person who is sexually and emotionally attracted to people of same sex is known as homosexual. For example – Lesbian and gay. A person who identifies as lesbian might describe herself as a woman (gender identity) who is attracted to women (sexual orientation). Similarly, a person who identifies as gay might describe himself as man (gender identity) who is attracted to men (sexual orientation).

Pansexual

A person who has sexual, romantic and emotional attraction towards people of all genders regardless of their biological sex or gender identity. They might refer to themselves as gender-blind, by arguing that gender and sex are not deciding factors in their romantic or sexual attraction to others. Even though the term literally means "attracted to everything," but people who identify as pansexual do not include extreme cases like paraphilia {such as zoophilia/ bestiality (sexual attraction towards animals), pedophilia (sexual attraction towards children) and necrophilia (sexual attraction towards corpses or dead bodies specially of a person)}.

Skoliosexual

A person who feels sexual and romantic attraction only towards people of non-binary gender or people who do not identify themselves as straight. It is more specific than pansexuality as it excludes sexual attraction towards straight people.

Androsexual

Those who are sexually attracted to masculinity regardless of their gender or sexual orientation. People who identify as androsexual may find themselves drawn to anyone who possesses characteristics of masculinity.

Gynosexual

Those who are sexually attracted to femininity and feminine traits regardless of their gender or sexual orientation. People who identify as gynosexual may find themselves drawn to anyone who possesses feminine qualities.

Autosexual

A person who is sexually attracted towards oneself, as well as not wanting to engage in sexual activities with others but still enjoying intimate sexual relations with oneself. Such people may prefer masturbation over sex with a partner. Sometimes people assume that being Autosexual means being narcissistic and self-centered. Autosexuality is also known as 'Autoeroticism'.

Demisexual

A person who identifies as demisexual feels sexually attracted only within the context of a strong emotional connection with another person.

Sapiosexual

A person who has a strong sexual attraction to intelligent people and believes that intelligence is the most desirable quality in a mate.

Morosexual

It is a word derived from "moron" and "sexual". It is a term used to characterize someone who finds low-IQ individuals sexually attractive. It is the exact opposite of sapiosexuality.

Abrosexual

A person who experiences sexual fluidity because they find regular or irregular shifts in their sexual orientation. They may sometime identify themselves as 'gay' or 'lesbian', and later feel attracted to all biological sexes and gender identities and even later may identify themselves as asexual.

Recipsexual

Recipsexual or Reciprocal sexual orientation refers to someone who does not feel sexual attraction to another person until they are aware that the other person is attracted to them first.

Trisexual

A person who feels sexual attraction towards three different genders or sexes which may include male, female, non-binary, intersex, or other gender identities.

Trysexual

A Trysexual person is someone who is willing to try new things in a romantic or sexual way or who is open to experimenting. Basically, they are willing to experiment with their gender identity and orientation.

What is gender identity?

The term "gender identity" was coined in the middle 1960s to describe one's continuous inner sense of belonging to either the male or female gender categories (Money, 1994). The concept of gender identity evolved over time to include those people who do not identify either as female or male: a "person's self-concept of their gender (regardless of their biological sex) is called their gender identity" (Lev, 2004).

Different forms & terminologies related to gender identity**Agender**

Agender literally means "without gender" and is a term used to refer to individuals who consider themselves gender neutral or who don't express a gender identity and deny the concept of gender for themselves. They are also known as genderless.

Androgynous

A person who possesses a high degree of both masculine (instrumental) and feminine (expressive) characteristics is said to be androgynous.

Bigender

Bigender refers to a person who has two gender identities or a combination of two gender identities. They experience two genders and not necessarily to be only male and female gender. For e.g., identifying as both male and female or identifying as agender and female or agender or male etc.

Cisgender

The terminology is derived from the Latin word meaning "on the same side". People whose gender identity coincides with their assigned sex and/or gender at birth are known to be 'cisgendered'.

Gender Fluid

A non-fixed gender identification that changes over time or in response to different circumstances is known as gender fluidity or it refers to individuals whose gender identity fluctuates between all genders or a specific subset of genders. For example - An individual may identify as male in one situation, female in another, or any other gender in still another.

Libra gender

They identify themselves predominantly as agender and feel somewhat connected to another gender.

Hijra

Hijra is a term culturally connected to South Asia and India in particular, Hijras are biological males who have woman-identified gender identity and expression. In the past, Hijras have lived in organized communities under the guidance of gurus for over 4,000 years. Hijras have been part of a social justice movement since the 1900s, hoping to be recognized as a third gender category apart from male and female.

Omnigender

Someone who is omnigender identifies with all genders, each gender being experienced as separate with distinct qualities and characteristics. Individuals who identify as omnigender tend to be genderfluid, switching between genders based on what seems most relevant at any particular time and situation.

Pangender

Although the terms pangender and omnigender are sometimes used synonymously, there are some important differences between the two. Someone who is pangender identifies with, experiences, and is all genders at once. All genders exist alongside one another simultaneously.

Third Gender:

The most widely recognized, recent concept of third gender suggests a category that is not related to or fixed in male/female but something else entirely, in contrast to being in between male and female or being both male and female.

Transgender/Trans

An umbrella term used to characterize individuals whose gender identification and/or expression deviates from societal norms because their gender identity and/or expression does not match their sex assigned at birth. Also, being a transgender does not imply any specific sexual orientation.

Trans Woman (Male to Female or MtF)

This term is used for someone who was assigned male at birth but identifies as a woman. They are also known as trans feminine.

Trans Man (Female to Male FtM)

This term is used for someone who was assigned female at birth but identifies as a man. They are also known as trans masculine.

Gender Binary

The belief that there are only two genders—male and female—and that people should identify as either man or woman.

Gender Expression

The external representation of a person's gender identification, typically demonstrated by behavior, clothes, hairstyle, or voice. Gender expression may or may not conform to socially defined behaviors and characteristics typically associated with being masculine or feminine.

Gender Queer

An umbrella term that is used to describe an individual's self- concept of their sexual orientation and identity.

Graygender

This identification refers people who are being relatively unconcerned/disinterested about their gender identity or expression and/or having a poor sense of gender.

Non-Binary

Non- binary is an umbrella term for all genders other than female/male or woman/man.

Gender Dysphoria

Frustration or discomfort brought on by the realization that one's gender identity is not related to their assigned sex or gender at birth is known as 'gender dysphoria'. It is basically a psychological condition of extreme disappointment from oneself.

Causes of such complexities**1. Genetic factors**

Sexual orientation development may be linked to genes. This was examined by a twin study in 2010 which indicated that homosexuality is determined by both genes and environmental factors (Langström 2010). The experimental nature of the existing twin studies, however, has made interpretation of the results a challenge.

Later in 2012, multiple independent groups of researchers undertook a large, thorough genome-wide linkage analysis of male sexual orientation. Genes on chromosome Xq28 and chromosome 8 in the pericentromeric region were discovered to have a significant link to homosexuality. (Sanders *et. al.* 2015).

However, in 2019 a genome-wide association analysis of 493,001 people revealed that hundreds or thousands of genetic variants support homosexual behaviour in both sexes, with 5 variants in particular being strongly related. In contrast to previous studies that indicated a significant correlation of sexual orientation with X-chromosome variants, they detected no excess of signal (and no individual genome-wide significant variants) on Xq28 or the rest of the X chromosome. (Ganna *et. al.* 2019)

2. Hormonal factors

According to the hormonal theory of sexuality, much as specific hormones influence fetal sex determination, hormonal exposure influences adult sexual orientation. Females typically have two X chromosomes, whereas males have one X and one Y. The Y chromosome is responsible for inducing the modifications required to transform a human fetus's developmental pathway from female to male. Various studies have revealed that Androgen hormones, particularly testosterone and dihydrotestosterone (DHT), stimulate the differentiation process. The newly formed testicles in the fetus secrete androgens, which help drive the sexual differentiation of the growing fetus, including its brain. This causes sexual variations between males and females (Siiteri & Wilson 1974). This discovery has prompted some scientists to investigate the effects of varying androgen exposure levels in mammals during fetus and early life.

3. Birth order

Various studies have shown that the likelihood of a male growing up to be gay increases with each older sibling he has from the same mother. Scientists attribute the fraternal birth order (FBO) effect to a prenatal biological mechanism, specifically a maternal immune response to male fetuses, because the effect is only observed in men with older biological brothers and not in men with older stepbrothers or adoptive brothers. This process, known as the maternal immunization hypothesis (MIH), starts when cells from a male fetus enter the mother's bloodstream during pregnancy. These cells contain Y-proteins, which are hypothesized to play a role in brain masculinization (sex differentiation) during fetal development. The mother's immune system develops antibodies against these Y-proteins. These antibodies are later unleashed on future male fetuses and disrupt the masculinization role of Y-proteins, leaving parts of the brain responsible for sexual orientation in the 'default' female-typical layout, causing the exposed offspring to prefer men over women. Biochemical evidence for this hypothesis was identified in 2017, finding that mothers with a gay son, especially those with older brothers, had significantly higher levels of anti-bodies to the NLGN4Y Y-protein than mothers with heterosexual sons (Balthazart & Jacques 2018).

The effect grows stronger with each subsequent male pregnancy, raising the likelihood of the next son becoming gay by 38-48%. This does not imply that all or most sons will be gay after numerous male pregnancies, but rather that the probabilities of having a gay son go from around 2% for the first-born son to 4% for the second, 6% for the third, and so on. (Blanchard 1997).

Social environment -

There is no compelling evidence to support the claim that early childhood experiences, parenting, sexual abuse, or other traumatic life events influence sexual orientation. There are few hypotheses about the impact of the postnatal social environment on sexual orientation, particularly among male which are very weak (Bailey *et. al.* 2016).

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