

# The Third Sex: Gender Identity Development of Intersex Persons

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Abstract: Gender identity is influenced by the biological make-up of the individual and society's expectations for that particular sex. For individuals born with ambiguous genitalia, gender identity development is altered beginning at birth when the biological sex is undetermined. The following literature review examines how individuals born with ambiguous genitalia and assigned a biological sex at birth develop a gender identity. The review discusses cross-cultural sex assignment of intersex infants, the maintenance of the sex label throughout the individual's lifespan, and the influence the label may have on the person's gender identity development. Due to minimal research on the topic no direct conclusions are made, and suggestions for future research are discussed.

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Contemporary Western societies often use the terms *sex* and *gender* interchangeably (Diamond, 1995). Yet this synonymous use is misleading. *Sex* is defined as the biological basis of being male or female while *gender* is socially taught, imposed or chosen based on cultural expectations (Newman, 2002). *Gender role* is the socially assigned behaviors, expectations and attitudes of being male or female in a culture. One's *gender identity*, in turn, is a person's persistent image of oneself as either predominately masculine, feminine, or androgynous based on the gender roles ascribed to his or her culture (Berk, 2007; Money, 1994). Although one's sex, gender and gender identity are usually in congruence, it is not necessarily so (Diamond, 1995).

Based on these definitions, the development of one's gender identity is influenced by the biological make-up of the individual and society's expectations for that particular sex. How do those individuals born with ambiguous genitalia develop a gender identity? In Western two-sex societies, a person's sex is usually determined by the presence or absence of external genitalia (Money, 1994). More specifically, the presence of a penis signifies that a person is male. This sex determination is almost always made at birth (Bostwick & Martin, 2007). When infants are born with physical features of both sexes and are "assigned" a gender based endocrine, karyotype, fertility potential and external appearance, this "first step" of gender identity development is compromised.

Although research comparing gender identity development of intersex individuals to non-intersex people is minimal, current findings show that intersex people assigned a sex at birth have problems developing a strong gender identity in both childhood and adulthood (Bostwick & Martin, 2007; Dittman, 1998; Sobel & Imperato-McGinley, 2004) and the rate of gender change of intersex individuals is higher than in the general



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population (Meyer-Bahlburg, 1994). Furthermore, many intersex individuals are never told of the circumstances surrounding their birth, leading to potential psychological issues and familial strife once the truth is revealed or uncovered. The following paper addresses the standard medical and cultural practice of assigning intersex infants as either male or female at birth, the medical and social interventions needed to maintain that label throughout the person's lifespan, and the practice's subsequent influence on the gender identity development of the individual. Does assigning a sex at birth help or hinder the gender identity development of intersex individuals?

## THEORIES OF GENDER IDENTITY DEVELOPMENT

Even with today's technological and medical advancements, the exact determinates of gender identity still remains relatively unknown (Bostwick & Martin, 2007). No matter the underlying cause, children identify themselves as either male or female at a very early age and this identification continues throughout adolescence (Berk, 2007). Research shows most toddlers behave in ways that can be defined as generally masculine or feminine, and by age two most children can clearly state their core gender affiliation (Bostwick & Martin, 2007). Throughout early and middle childhood, children begin to understand that boys and girls can behave in ways and perform activities that are gender atypical, and girls' identification with feminine traits declines between third to sixth grade (Berk, 2007). Boys at this age identify more strongly with masculine traits. During adolescence, gender intensification occurs and both sexes begin to take on more traditional gender identities. Biology, cognition and societal norms all influence a teenager's desire to present him or herself in more gender stereotypical ways. Gender intensification declines by late adolescence and most individuals leave their teenage years with a clear gender identity, but not all teens progress at the same rate (Bostwick & Martin, 2007).

The research discussed above shows that gender identity development begins even before toddlers have the vocabulary to accompany their newfound sense of self. What influences this seemingly innate form of development? Some researchers state that the main influence is environmental factors including rearing conditions, societal expectations, cultural norms, and the child's corresponding external genitalia rather than on the presence of chromosomes, gonads or hormones (Dittmann, 1998; Money, 1994; Newman, 2002). The view that there is a critical period for sex and gender identification dominated the medical and psychological fields well into the 1980s (Bostwick and Martin, 2007). Edward Money

believed that children develop a gender identity by comparing their body to others, and that gender identity became fixed between the age of 18 months and five years. Prior to the 1980s, researchers believed that children were a blank slate and developed a gender identity based on how they were raised.

There are several other theories in addition to Money's that emphasize nurture in the development of gender identity. The *social learning theory* states that children begin to act in gender specific ways before they identify themselves as male or female (Berk, 2007). Children pick up gender-typical behavior through modeling and reinforcement and only after they develop higher level thinking skills will they then attribute such behaviors to their own identities. The *cognitive-development theory* explains that once children learn that their sex is permanent and biologically based, they use this information to guide their behavior in sex-appropriate ways (Newman, 2002). *Gender schema theory* states that very young children learn gender typical behaviors and expectations from others and slowly begin to develop *gender schemas*, a way to interpret their experiences as masculine or feminine. Once they can identify their own sex, they select gender schemas that are most in line with being male or female. Finally, *constructionist* theorists believe that one's biological sex is individually interpreted based on a particular culture's social practices and gender norms (Newman, 2002).

While many theories point to nature's dominate influence on gender identity development, there are numerous researchers that believe prenatal hormones, specifically androgens, are the primary determinant of future gender identification (Diamond & Watson, 2004; Dittman, 1998; Reiner & Gearhart, 2004; Sobel & Imperato-McGinley, 2004). In their reviews of early animal research, Dittman (1998) and Money (1994) state that manipulating the hormone levels of developing mammal fetuses can both masculinize and demasculinize the animal's brain development. More recent human subject research has shown that genetic males who cannot respond to androgens due to a genetic defect often identify themselves as female after puberty, regardless of the sex they were raised (Wilson, 1999). Sobel and Imperato-McGinley (2004) show that individuals with Complete Androgen Insensitivity (CAI), a genetic condition where XY fetuses are unable to respond normally to testosterone, identify themselves as female. Diamond (1995) goes as far to proclaim there are no documented cases where a "normal individual, even without suitable genitalia, has accepted rearing or life status...of the sex opposite to that of his or her natural genetic and endocrine history" (p. 66).



The debate on the influence of nature versus nurture in gender identity development is not one to abate anytime soon. Although the discussion continues, most current researchers believe that biological sex, androgen influence, physical characteristics, parental rearing and cultural norms all interact to influence an individual's identification as either masculine or feminine, male or female (Bostwick & Martin, 2007; Reiner & Gearhart, 2004; Sobel & Imperato-McGinley, 2004).

### INTERSEX CONDITIONS AND GENDER ASSIGNMENT

As stated above, gender identity development begins the moment a baby is born and the doctor exclaims "It's a boy!" or "It's a girl!" But what about infants who's biological sex is not so clearly defined? Current estimates state that approximately 1/4,500 births have no clear consensus of the biological sex of the child (Vilain, 2006). During fetal development, all embryos contain tissue that has the potential to develop as either male or female. In most cases, the fetus develops in accordance with its chromosomal sex and the child is born with "normal" genitalia. But in a small percentage of cases, the hormonal sequence is skewed and babies with ambiguous brains or bodies result (Bostwick & Martin, 2007). The exact sequence of fetal sex development and the cause and outcome of all intersex conditions are beyond the scope of this article, but more information can be found in Bostwick and Martin (2007) and Sobel and Imperato-McGinley (2004).

Although not all babies born with ambiguous genitalia are diagnosed as having an intersex condition, societal expectations have historically forced such babies to be "assigned" a gender at birth (Bostwick & Martin, 2007). During the mid to late twentieth century, John Money and his research team at Johns Hopkins University lead the predominate practice of using an *optimal gender* paradigm to determine whether to assign an infant male or female. Prior of the advancement of chromosomal and endocrinological testing, most intersex babies were "made" into girls due to difficulties in constructing a working penis, which was often defined as being large enough for vaginal intercourse. Because Money believed that nurture was solely responsible for a child's gender identity and that the critical period for gender identity development didn't begin until the middle of the second year of life, gender identity was theorized to develop "normally" as long as any surgical reconstruction was completed prior to the 18<sup>th</sup> month and that parental rearing corresponded to the assigned sex.

Current medical protocol for intersex infants is not as extreme as Money's original recommendations. Newborns with ambiguous genitals are generally still assigned a sex, but only after endocrine and karyotype

testing has been preformed (Bostwick & Martin, 2007). Input from pediatricians, geneticists, pediatric endocrinologists, urologists, gynecologists and parents are sought prior to making the sex determination (Meyer-Bahlburg, 1994). Surprisingly, mental health professionals are rarely consulted in this decision making process. The current trend is moving away from infant genital surgery, and the Intersex Society of North America recommends surgery only when it is absolutely necessary for the health of the infant (Sobel & Imperato-McGinley, 2004). Instead, the society recommends waiting until the child or adult is old enough to request surgery with his or her full informed consent. Yet not all cultures recommend sex assignment immediately at birth, nor advocate the use of genital surgery to align physical features with social sex. The following section discusses the cultural variance in gender and sex practices.

## GENDER IDENTITY AND CULTURE

Up to this point the discussion has focused on the binary sex model of Western societies and the male/female gender roles and identities of such cultures. Although gender identity development patterns of intersex individuals can be somewhat generalizable due to the unique nature of the condition, the cultural context of the individual must be taken into account when discussing the topic. In her review on gender and culture, Newmann (2002) states that worldwide there is wide variation on what constitutes sex and gender and what is considered gender-variant. In certain cultures, physical characteristics are not enough to identify biological sex and elaborate rituals take place to determine the sex of a newborn baby. Some cultures, including several American Indian tribes, have a third sex assigned to individuals who transcend purely male and female gender lines. Certain religions present deities as having both male and female physical features or the ability to change gender, and such characteristics increase spiritual power.

The most studied example of culturally specific gender change is a form of XY intersexuality titled 5-alpha reductase deficiency, a condition where because of an enzyme deficiency, babies are born with ambiguous genitalia and raised as girls but experience a “male puberty” at adolescence where their voices drop, genitals grow, and they develop male physical characteristics (Sobel & Imperato-McGinley, 2004). This condition has been found in isolated communities in the Dominican Republic, New Guinea and Turkey, and sporadically in the descendents of original inhabitants of these areas. The main character of the popular book *Middlesex* by Jeffrey Eugenides likely had this diagnosis (Bostwick &



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Martin, 2007). In her review of literature on the disorder, Newman (2002) states that the phenomenon is socially accepted in these communities and most children successfully change to a male gender identity during puberty. She concludes that planning the appropriate interventions for an intersex or gender variant child must be managed in the context of the individual's culture, while at the same time considering the dominant gender system if different from the immediate familial culture.

## **WESTERN CULTURE INTERSEX GENDER IDENTITY DEVELOPMENT**

Even though today's doctors are more likely to hold off on performing genital surgery and take more information into account than just physical appearance when assigning gender, there is no research on the long-term psychological consequences of growing up with genital ambiguity. Also, the minimal research on gender and sexual identity of intersex individuals is mostly limited to case studies and is difficult to generalize to the over 15 different types of intersexuality (Vilain, 2006). The following section discusses the gender identity development of intersex individual with this limitation in mind.

Children in Western societies born with ambiguous genitals begin their life amongst a flurry of doctors, tests, pokes and prods. This in and of itself makes the early psychosocial development of intersex children very different from those with clearly defined male or female genitals, and this context may influence the gender role behaviors and subsequent gender identity of intersex children (Meyer-Bahlburg, 1994). This context also influences the familial relationships of intersex families. Sex ambiguity often leads to family confusion surrounding the "true" sex of the child. This could lead to conflict both within the family and between the family and the physicians who made the sex recommendation, resulting in an ambiguity of rearing not commonly found in non-intersex children. Due to this ambiguity or possibly from fear of that their child will not conform to his or her sex assignment, caregivers may promote or discourage certain types of behaviors and interests when children show sex-atypical preferences. Although influential, early caregiver decisions does not guarantee acceptance of sex in later childhood, adolescence or adulthood, possibly due to the factors listed above (Bostwick & Martin, 2007).

Family conflict and ambiguity of rearing are not the only roadblocks in the gender identity development of intersex people (Meyer-Bahlburg, 2007). Children and adolescents may have body image issues due to the physical appearance of their genitals or with the development of sex-opposite secondary sex characteristics during puberty. Their peers may ostracize them due to their physical appearance or gender-atypical

behavior. Some intersex adolescents may find themselves attracted to same-sex partners and begin to question their sexual orientation or sex assignment. In some cases, children and adolescents may wholly reject their sex assignment and begin to overtly request a sex reassignment (Reiner & Gearhart, 2004).

Not all intersex children vocally request a desire to switch to the other sex, but many do report a feeling of being different from their assigned sex and identifying more with the opposite gender. In Bostwick and Martin's (2007) case study a woman did not know she was born with an intersex condition until she was 48 years old. The investigators show that the client identified herself as a tomboy as a child and preferred male playmates. Although she never identified herself as being physically male, she grew up feeling like she had "the brain of a man" (p. 1499). She continues to live as a woman but is relieved to know that her gender identify confusion stems from a biological condition. Dittman's (1998) case study of a intersexual German man who began life labeled a male, then was raised as a female after the age of four years old, shows that the patient began to seriously doubt her female sex around eight years old and "never felt as a girl or woman" (p. 261), but did not choose to live life as a male until he was 18 years old. The preceding paragraphs show that the gender identity of intersex individuals is not static and can change throughout the lifespan due to biological, psychological, societal and cultural influences.

## CONCLUSION

Vilain (2006) argues that future gender identity should be the primary influence when assigning sex to an intersex infant, regardless of physical genitalia, karyotype or endocrinological data. Yet informed, research based conclusions about gender identity development of intersex infants is extremely difficult due to the limited and inconsistent data on such rare diagnoses (Reiner & Gearhart, 2004). Questions of gender identity may dominate the life of an intersex individual or be of no consequence at all (Bostwick & Martin, 2007). And for individuals who do struggle with gender identity and change their social sex, there is the possibility that they are not changing their gender identity at all but instead changing their gender role and they way they present themselves to society (Sobel & Imperato-McGinley, 2004). Some argue that sex assignment should be postponed until parents and doctors can observe the child's normal development, but in a binary sex society, how can a child ever be raised gender neutral? Not until more comprehensive, cross-cultural and longitudinal research on both sex-assigned and gender-neutral individuals



is conducted can the influence of sex assignment of intersex individuals be fully understood.

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