

# From Mental Disorder to Iatrogenic Hypogonadism: Dilemmas in Conceptualizing Gender Identity Variants as Psychiatric Conditions

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**Abstract** The categorization of gender identity variants (GIVs) as “mental disorders” in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) of the American Psychiatric Association is highly controversial among professionals as well as among persons with GIV. After providing a brief history of GIV categorizations in the DSM, this paper presents some of the major issues of the ongoing debate: GIV as psychopathology versus natural variation; definition of “impairment” and “distress” for GID; associated psychopathology and its relation to stigma; the stigma impact of the mental-disorder label itself; the unusual character of “sex reassignment surgery” as a psychiatric treatment; and the consequences for health and mental-health services if the disorder label is removed. Finally, several categorization options are examined: Retaining the GID category, but possibly modifying its grouping with other syndromes; narrowing the definition to dysphoria and taking “disorder” out of the label; categorizing GID as a neurological or medical rather than a psychiatric disorder; removing GID from both the DSM and the International Classification of Diseases (ICD); and creating a special category for GIV in the DSM. I conclude that—as also evident in other DSM categories—the decision on the categorization of GIVs cannot be achieved on a purely scientific basis, and that a consensus for a pragmatic compromise needs to be arrived at that accommodates both scientific considerations and the service needs of persons with GIVs.

**Keywords** Gender identity disorder · Transsexualism · Transgenderism · DSM-V · Mental illness

## Introduction

During the preparation of the 5th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) of the American Psychiatric Association (APA), the often vehement exchanges among and between diverse stakeholders show that the psychiatric categorization of gender identity variants (GIVs) remains highly controversial. Among mental-health professionals as well as among gender-variant persons the opinions range widely, from recommendations to continue the inclusion of GIVs as “mental disorders” in the DSM to demands for the complete removal of GIVs from the DSM altogether (see, for instance, the findings from a recent survey of transgender advocacy groups’ opinions by Vance et al. [2009], as well as the report on a consensus conference of the World Professional Association for Transgender Health by de Cuypere, Knudson, & Bockting, 2009). The purpose of this paper is to examine concepts, pertinent data, apparent dilemmas, and possible options for the resolution of these dilemmas.

The nomenclature in the area of sex and gender variations continues to be in flux, in regard to both the descriptive gender terms used by professionals and, even more so, the identity terms adopted by persons with GIV. In this article, I will use “sex” to refer to the congenital somatic and physiological aspects, and “gender” to denote the behavioral, psychological, and social aspects (understood as the result of interacting biological, psychological, and sociological factors) as well as the legal categorization. At birth, a child’s “sex” is usually identified by the external genitalia and serves as the basis for the assignment of legal “gender” with the expectation that the

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social environment will create a corresponding social “gender role” for the child and that the child will later develop “gender-related behavior” and a “gender identity” accordingly. In cases of somatic disorders of sex development (DSD), a term that includes “intersexuality” along with other conditions, when the external and internal genitalia are not unambiguously male or female, gender assignment results from a more complex decision process (Meyer-Bahlburg, 2008). I refer to “gender variants” (GVs) as the entire spectrum of people with gender-atypical behavior, to “gender identity variants” (GIVs) or “transgender” as the entire spectrum of people who identify with a gender category other than the one assigned to them at birth or shortly after (“natal gender”), and I use “gender identity disorder” (GID) and “GID Not Otherwise Specified” (GID-NOS) as defined in the DSM-IV-TR.

### History of Gender Variants in the DSM

Persons with varying degrees of gender-atypical development have been described for many and diverse cultures (e.g., Herdt, 1996; Whitam, 1997; Winter, 2009; for Brazil: Cardoso, 2005; Inciardi, Surratt, Telles, & Pok, 1999; Kulick, 1998; for India: Bradford, 1983; Nanda, 1999; for India and Sri Lanka: Stevenson, 1974; for Mexico: Stephen, 2002; for Myanmar: Coleman, Colgan, & Gooren, 1992; for Oman: Wikan, 1977; for Samoa: Bartlett & Vasey, 2006; Vasey & Bartlett, 2007; for Thailand: Costa & Matzner, 2007; Jackson, 1997; for the native Zuni culture in the U.S.: Roscoe, 1990) and throughout recorded history (Bullough & Bullough, 1993; Feinberg, 1996; Perry, 1987; Rowsen, 1991; Wiesner-Hanks, 2001). In American society, the extreme variant involving gender reassignment, cross-gender hormone treatment, and genital surgery became a salient issue with George/Christine Jorgensen in 1952 (Docter, 2007; Hamburger, Stürup, & Dahl-Iversen, 1953), which was soon followed by clinical benchmark papers and books on the subject: Benjamin (1954), Green and Money (1960), Stoller (1964), Pauly (1965), Benjamin (1966), Green and Money (1969). In the mid-1960s, the first medical school-based transsexual clinic was opened at Johns Hopkins Hospital in Baltimore, MD. It was closed again as a consequence of an ideological backlash in 1979, the same year which saw the founding of the Harry Benjamin Gender Dysphoria Association (recently renamed the World Professional Association for Transgender Health), along with the distribution of its first version of the Standards of Care (SOC). The first psychiatric category specific to GIV, “gender identity disorder,” was introduced with DSM-III in 1980 (American Psychiatric Association, 1980). In the legal domain, antidiscrimination statutes were gradually extended to include persons with GIVs during the 1990s, and in 2007 the evolving human-

rights approach led to the formulation of the Yogyakarta Principles (2007) on the application of international human rights law to sexual orientation and gender identity, with further elaboration in subsequent publications (Currah, Green, & Stryker, 2009). Recent additional milestones in the U.S. were the Resolution 122 of the American Medical Association (American Medical Association, 2008), “Removing Financial Barriers to Care for Transgender Patients” (where GID is labeled a “serious medical condition”), and a few weeks later the resolution of the American Psychological Association (2008a) on “Transgender, Gender Identity, and Gender Expression Non-Discrimination,” which followed the publication of the report of that society’s Task Force on Gender Identity and Gender Variance (2008b).

During these past decades, persons with GIV increasingly dared “coming out,” the GIV spectrum and related identities diversified, and numerous communities of gender-atypical persons developed and became more visible to the public at large.

During the same half century, also the terms and placement of GIV-related categories in the DSM underwent change. DSM-I (American Psychiatric Association, 1952) and DSM-II (American Psychiatric Association, 1968) had not included specific terms for persons with GIV; some such individuals were subsumed under Sexual Deviations (e.g., Homosexuality or Transvestism). Christine/George Jorgensen, for instance, was called a “genuine transvestite” (Hamburger et al., 1953). In DSM-III (American Psychiatric Association, 1980), the new category of GID, with the subcategories Transsexualism, GID of Childhood, and Atypical GID, was placed in the group of Psychosexual Disorders. In DSM-III-R (American Psychiatric Association, 1987), GID, now subdivided into “Transsexualism,” “GID of Childhood,” “GID of Adolescence and Adulthood, Nontranssexual Type” (GIDAANT), and “GID-NOS,” was separated from Psychosexual Disorders and placed under Disorders Usually First Evident in Infancy, Childhood, or Adolescence. DSM-IV (American Psychiatric Association, 1994) and DSM-IV-TR (American Psychiatric Association, 2000) created the supraordinate category “Sexual and Gender Identity Disorders,” which included GID (with separately formulated criteria for children and for adolescents/adults) and GIDNOS. The DSM-IV text also introduced the term “autogynephilia” as a fetishistic feature “usually reported in the history of adult males who are sexually attracted to females, to both males and females, or to neither sex.” This concept continues to be highly controversial, and even among persons with GID, opponents and proponents of its validity (including persons with GID who categorize themselves as autogynephilic) can be found. Across all versions of the DSM since DSM-III, the core construct of GID is the combination of identification with the other gender and of a sense of inappropriateness, if not rejection, of one’s assignment to the natal gender, with the key specifiers of age (in terms of some age-specific criteria), gender

(including some gender-specific criteria for childhood), and sexual orientation (for adolescents and adults).

The current debates of GID and the DSM present some striking parallels to the developments that led to the removal of homosexuality from the DSM in 1973. As described by Bayer (1981), prior to DSM-III, homosexuality was seen in psychiatry as a pervasive mental disturbance. In the late 1950s, Evelyn Hooker demonstrated the existence of overall well functioning homosexuals. Frank Kameny emphasized the lack of scientific evidence for homosexuality as psychopathology and launched a protest movement against its classification as a mental disorder. The eminent psychiatrist, Judd Marmor, declared homosexuality a “normal variant.” Robert Spitzer concluded that homosexuals can be high functioning and satisfied with their sexual orientation. That insight contributed to Spitzer’s formulation of “impairment” and “distress” as defining features of a “mental disorder.” Robert Spitzer and Ronald Gold drafted the civil rights resolution opposing both criminal sanctions against private consensual homosexual activity and social discrimination against homosexual men and women; this resolution was approved by the American Psychiatric Association in December 1973, along with the deletion of (ego-syntonic) homosexuality from the DSM.

Similarly, in the mid-twentieth century, GID was also seen as a pervasive mental disorder, by some even as a form of psychosis (e.g., Siomopoulos, 1974). In the last 20 years, there has certainly been a growing recognition of transsexual men and women who are high-functioning and satisfied with their adopted gender, i.e., people who seemed to show neither “impairment” nor “distress,” and therefore not a “mental disorder.” There is also a vigorous activist movement against the psychiatric categorization (“pathologization”) of transgender individuals (e.g., Gender Spectrum Family; GID Reform Advocates; Professionals Concerned with Gender Diagnoses in the DSM; Trans Youth Family Allies), which is strongly supported by activist members of gay and lesbian communities. Many activists and a growing school of mental-health professionals (some of whom are transgender) see transgenderism as a “normal variant” between the gender poles (Brill & Pepper, 2008; Hill, Rozanski, Carfagnini, & Willoughby, 2007; Lev, 2005; Moser & Kleinplatz, 2005; Perrin, 2002). At the same time, an increasing number of jurisdictions extend human-rights based antidiscrimination laws to include gender or transgender. Clearly, a number of the facets of the current GIV debate replicate facets of the homosexuality debate of the 1960s–1970s (for greater detail, see Drescher, 2009).

The engagement of gay activists in the current political debate is fueled, in part, by a lingering suspicion among many that GID, especially GID of childhood, was deliberately put into the DSM as a cryptic way of retaining homosexuality as a

pathologic category (e.g., Burke, 1996; Sedgwick, 1991). Despite its detailed repudiation by key participants in the DSM process (Zucker & Spitzer, 2005), this conspiracy theory appears to continue its life as a politically potent legend (e.g., Ault & Brzuzy, 2009). In addition, there are some developmental similarities of homosexuality and GID. Both sexual orientation and gender identity cover spectra between the male-typical and female-typical (binary) poles. Homosexuality is to some extent associated with gender-atypical behavior. In fact, GID of childhood is a stronger predictor of the development of homosexuality than of GID in adolescence or adulthood (Bailey & Zucker, 1995; Mathy & Drescher, 2008), which, however, does not justify to conceptually equate GID and homosexuality, given their different developmental courses and frequent non-congruence. Finally, both homosexuals and people with GIVs suffer extensive societal stigma and, probably in part as a consequence, increased psychiatric problems (Alanko et al., 2009; Lombardi, Wilchins, Priesing, & Malouf, 2001; Meyer & Northridge, 2007; Nuttbrock et al., 2009b; Plöderl & Fartacek, 2009; Ryan, Huebner, Diaz, & Sanchez, 2009; Winter, 2009), although bidirectional causation cannot be ruled out. On the other hand, there is a subgroup of persons with early-childhood GIV who settle into their assigned gender during later childhood and, relative to their natal gender, develop heterosexuality. In addition, there are two major practical differences between homosexuality and the transsexual degree of GIV, i.e., those who want to cross over the gender line completely, namely (1) the wish to change one’s legal gender status to the other, desired gender, and (2) the wish to conform one’s body to the desired gender by cross-gender hormone treatment and genital surgery. In many countries, the pertinent legal regulations for government action and insurance coverage require the recognition of a clinical or psychopathological condition that is attested to by a professional specialist. Only persons with a somatic DSD, who request gender re-assignment and genital surgery, encounter less of a regulatory hurdle, because they have a diagnosable somatic condition of disordered (biological) sex.

### Arguments for and against the Mental Disorder Classification

Given the interrelationship of variations of gender and sexual orientation and their intraindividual fluidity in some individuals, as expressed, for example, in the term “genderqueer” (Bryant, 2008), it is no wonder that the psychiatric classification of marked GIVs has been strongly criticized. Some authors dismiss the psychiatric classification altogether (Isay, 1997) or, from a Foucaultian perspective, interpret the psychiatric diagnosis of GID as nothing but a “tool of social

control” that serves “to pathologize ordinary human diversity” (Lev, 2005). Others propose to distinguish between subgroups with and without psychopathology, for instance, in regard to children with marked GVs (e.g., Bartlett, Vasey, & Bukowski, 2000; Bockting & Ehrbar, 2005; Richardson, 1999), and to apply psychiatric categories only to those with demonstrated psychopathology (other than GIV).

Hill et al. (2007) deduce from various findings of increased psychiatric problems in the parents of children with GIV that it may be the parents rather than their children who are psychiatrically disturbed (for a similar argument, see also Lev [2005]), and that such parents may bias their reports of their GIV children’s psychiatric problems. These authors fail to take into consideration, however, that familiarity and heritability are common findings in psychiatric conditions, which implies a contribution of biological components to their development. Moreover, even if environmental circumstances (including parent-child relationships) also contribute to the development of psychiatric disorders, as it is the case, for instance, in posttraumatic stress disorder (PTSD), it is not meaningful to deny their existence in the child. On the other hand, some studies fail to identify parental problems as a major risk factor for GIV development (e.g., Wallien, van den Langenberg, Knol, Kreukels, & Cohen-Kettenis, in press). In regard to reporting bias, the multimethod and multiinformant approaches used in the systematic clinical evaluations of children with GIVs (e.g., Meyer-Bahlburg, 2002; Zucker & Bradley, 1995) show that the reports by parents about their children usually are largely in line with the findings from children’s self reports and clinicians’ observational evaluation of these children; they cannot, therefore, be attributed to mere parental bias against their children as claimed by Hill et al. (2007).

In the often vociferous debates of the status of GIVs in the DSM in professional journals and in statements from activist groups, especially on the internet, a number of key issues have attained particular salience. Among these are: (1) Do GIVs constitute pathologic conditions or “natural” variations? (2) How are the criteria for a “mental disorder,” namely “impairment” and “distress,” defined for GIV? (3) Is psychopathology found to be associated with GIV primarily a function of social stigma or inherent to the GIV itself? (4) Does the “mental-disorder” label by itself serve as an additional source of stigma? (5) Is the anatomic accommodation of GIV by cross-gender hormones and surgery really a psychiatric treatment? (6) Finally, and, from a policy standpoint, most importantly, how can GIV-related mental-health and medical services be justified, if “GIV” is removed from the DSM and GIV declared a normal variation?

#### Pathologic Condition versus Natural Variation

In general, the demarcation of behaviors that are “pathologic” from those that are not poses a challenge to the clinician.

Stedman’s Medical Dictionary (1995) defines “pathology” as the “medical science, and specialty practice, concerned with all aspects of disease, but with special reference to the essential nature, causes, and development of abnormal conditions, as well as the structural and functional changes that result from the disease processes” (in Greek, *pathos* =feeling, suffering disease; in Greek, *logos* = study, treatise). In line with this definition, “psychopathology” is the “science concerned with the pathology of the mind and behavior.” Yet, the Stedman definition of pathology obviously presupposes a consensus on the definition of “disease,” and does not offer a systematic approach to demarcate psychopathologic from non-psychopathologic for the continua of behavioral domains which, at the extreme end, are categorized as psychiatric dysfunctions and/or mental disorders.

In regard to GIVs, part of the categorization problem is due to the fact that we do not have a well established detailed theory—let alone a neuroanatomic/neurophysiologic model—of normal gender identity development that gives us clear guidance in distinguishing non-pathologic from pathologic. Apart from the gender assignment at birth on the basis of the appearance of the external genitalia, the developmental psychological processes leading to sex-dimorphic behavior, gender schemas, and a gendered self-concept—presumably in dependence on central-nervous system organization as well as on various mechanisms of social learning—appear to be highly intercorrelated (Ruble, Martin, & Berenbaum, 2006). Under these circumstances, causal directions among psychological processes are notoriously difficult to establish, which makes the delineation of pathologic processes problematic. Moreover, probably due to differences in study populations, there is little overlap and communication between theorists of normal gender development (e.g., Egan & Perry, 2001; Ruble et al., 2006) and theorists of GIV. Biologically oriented investigators of GIVs tend to draw on models of behavior development—starting with the effects of genes and hormones early in development on the sexual differentiation of the brain—from nonprimate mammals, especially rodents, but vary to what extent they extrapolate beyond human gender-related behavior to human gender identity, for which there is no clear animal model at present.

As the study of gender development in persons with somatic DSDs often serves as a bridge from biological animal research to human investigation, I want to highlight some of the dilemmas involved in categorizing GIV as psychopathology with two examples of gender change from the DSD area. Consider the case of a 46,XY child with a severe penile abnormality due to non-hormonal causes (e.g., penile agenesis, cloacal exstrophy of the bladder, or traumatic loss of the penis in infancy), who has been raised female, shows strongly masculinized behavior in childhood, and initiates a change to the male gender later, as enacted by about a quarter of individuals with such conditions who have been documented

to date (Meyer-Bahlburg, 2005). What is considered “pathologic” in a case of penile agenesis, for example? Certainly, the non-development of a genital tubercle and, later, the absence of a penis in an otherwise normal-male developed individual (normal testes, normal androgen production, normal male reproductive structures, except for the lack of a penis and the location of the urethral meatus in the rectum), is seen as pathologic. After early castration and female assignment, such a child shows markedly masculinized (“tomboyish”) behavior in comparison to non-DSD girls, but nowadays tomboyish behavior is not seen as pathologic. Bisexuality or gynecophilia emerging in adolescence or adulthood is also not categorized as pathologic, given that homosexuality has been removed from the DSM. When such a 46,XY person later initiates gender change to male, it is seen as a “correction” in medical circles outside of psychiatry and similarly by lay persons. Yet, in DSM-IV-TR, it is labeled a mental disorder, namely GIDNOS. On the other hand, if one considers the gender change to male a “correction” instead of a “mental disorder,” what about those with the same condition who develop an identity as female and do not change their gender: Do they now have to be considered as having a mental disorder?

Another DSD example is provided by 46,XX newborns with severe degrees of genital masculinization due to classical congenital adrenal hyperplasia (CAH) who, when raised female, typically show markedly masculinized behavior later; some even initiate gender change to male. In these patients, many medical features would be considered “pathologic”: the deletion or mutation of the 21-hydroxylase (21-OH) gene, the resulting deficiency of the 21-OH enzyme, of cortisol and aldosterone, of negative feedback from circulating cortisol on ACTH release leading to continuous stimulation of the adrenal, to adrenal hyperplasia, and to overproduction of adrenal androgens. However, there is less consensus regarding masculinization of the genitalia. For instance, physicians typically categorize a markedly enlarged clitoris as “pathologic,” but many social constructionists emphasize the “natural” variation of peno-clitoral size along a continuum, which they contrast with the “socially constructed” binary system of gender (e.g., Fausto-Sterling, 2000; Kessler, 1990). Finally, the well established increased rate of masculinized gender behavior (Meyer-Bahlburg, Dolezal, Baker, Ehrhardt, & New, 2006) and sexual orientation (Meyer-Bahlburg, Dolezal, Baker, & New, 2008) as well as the occasional patient-initiated gender change to male (Dessens, Slijper, & Drop, 2005; Meyer-Bahlburg et al., 1996) in this DSD condition poses questions of categorization that are very similar to those in 46,XY penile agenesis. Thus, in such cases, gender-atypical behaviors that clearly “result from the disease processes” (Stedman’s Medical Dictionary, 1995) are not necessarily categorized as psychopathologic.

Some clinicians might question why GIV in persons with DSD needs to be considered at all in the context of the discussion of GID and the DSM. There are several reasons: (1) Despite misgivings among some participants in the respective work groups at that time, DSM-IV and DSM-IV-TR included GIV in DSD as GIDNOS, because of similarities in presentation to non-DSD GIVs. (2) In addition, one has to note that also in persons with DSD gender identity development is a psychological process, not just an outcome determined by biological factors. For instance, we have shown that 46,XX girls with classical CAH show a dose–response relationship (on the group level) of prenatal androgens to gender behavior, but not to (dimensionally assessed) gender identity (Meyer-Bahlburg et al., 2004), i.e., gender identity is less closely related to biological factors than gender-related behavior. In fact, gender identity can accommodate wide variations in gender-related behavior (Meyer-Bahlburg et al., 2006). (3) A number of recent findings suggest that GID may perhaps be understood in part as a CNS-limited form of DSD or intersexuality, without involvement of the reproductive tract. This is the implication of the demonstration in male-to-female and female-to-male transsexuals of a sex reversal in terms of volume and cell number of sex-dimorphic brain nuclei, such as the central portion of the bed nucleus of the stria terminalis (BNSTc; Kruijver et al., 2000; Zhou, Hofman, Gooren, & Swaab, 1995), the interstitial nuclei 3 and 4 of the anterior hypothalamus (INAH3 and INAH4; Garcia-Falgueras & Swaab, 2008), and the gray matter in the right (and possibly the left) putamen (Luders et al., 2009), although such findings are characterized by large within-group variability and cross-group overlap. Recently, the neuroanatomic findings have been complemented by the demonstration of gender-atypical brain activation patterns in processing steroid based odors and erotic stimuli (Berglund, Lindström, Hejne-Helmy, & Savic, 2008; Gizewski et al., 2009).

It is also conceivable that there may be genetically based systemic sex-hormone abnormalities that do not cause abnormalities of the reproductive anatomy, but nevertheless influence brain and behavior. This is implied by genetic abnormalities (albeit with very modest effect sizes) in terms of increased trinucleotide (CAG) repeats found in the androgen-receptor (AR) gene of male-to-female transsexuals, which are generally associated with impairment of androgen utilization (Hare et al., 2009); of an increased prevalence of CYP17 gene polymorphisms in female-to-male transsexuals associated with higher serum and tissue concentrations of both testosterone and estradiol (Bentz et al., 2008), which may explain some hormonal findings reported earlier (Bosinski et al., 1997); and of significant combined partial effects of three polymorphisms in male-to-female transsexualism (CAG repeats in the AR gene, tetra nucleotide repeats in the aromatase gene, and CA repeats in the estrogen receptor  $\beta$  gene; Henningson et al., 2005; for new negative findings, see

Ujike et al., 2009). Such genetic mechanisms may underlie the demonstration of substantial heritability of gender-related behavior in general and GID in particular in child and adolescent twin samples (Coolidge, Thede, & Young, 2002; Iervolino, Hines, Golombok, Rust, & Plomin, 2005; Knafo, Iervolino, & Plomin, 2005; van Beijsterveldt, Hudziak, & Boomsma, 2006). The absence of genital abnormalities in such cases suggests dose specificity or tissue specificity of the androgen receptor deficit, or timing effects, the latter because it has long been demonstrated in animal research that the sexual differentiation of the brain during a hormone-sensitive prenatal or perinatal period can be modified independently of the (earlier) sexual differentiation of the reproductive tract (Goy, Bercovitch, & McBair, 1988). The application of highly sophisticated new techniques for genome-wide profiling of the transcriptomes of peripheral blood mononuclear cells, which led to the demonstration of a discrete set of transcripts directly correlated with XY or XX genotypes independent of male or female genotype of the external genitalia, and another, larger gene set that reflected the degree of external genital masculinization independent of both sex chromosomes and concurrent postnatal sex steroid hormone levels (Holterhus et al., 2009), appears to open exciting additional possibilities for genetic approaches to GVs.

One feature of animal models of the sexual differentiation of brain and behavior that has not yet found sufficient consideration in human research on gender development is the observation in rats that males have the neural circuitry of all aspects of female sexual behavior. That circuitry is usually blocked by perinatal sex-hormonal defeminization, but can be activated by the induction of an atypical sex-hormone milieu in adulthood (de Vries & Södersten, 2009). Perhaps related mechanisms are involved in the development of such phenomena as late-onset GID or contribute to the sexual-orientation change observed in many trans persons after onset of cross-gender hormone treatment (Bockting, Benner, & Coleman, 2009; Lawrence, 2005).

An alternative biological model that assumes faulty hardwiring (possibly for other than hormonal reasons) of the gender-specific cortical representation of the genitals as the basis of anatomic genital dysphoria in transsexuals was recently proposed by Ramachandran and McGeoch (2007), but fails to explain the broad-band gender-behavior changes seen in most individuals with early-onset GIV and requires more empirical support even for its core assumptions.

Let us assume that in the future one or several of the human biological findings above will be shown to be replicable in GIV samples by independent, reliable laboratories. Would the gender-atypical behavior (including sexual orientation) in such cases then be considered “pathologic”? And what about those who become gender-dysphoric and initiate gender change? Would public opinion and government officials not likely refer to a “correction of wrong gender assign-

ment,” in parallel to the analogous cases with somatic intersexuality? Again, on the other hand, if patient-initiated gender change in such GIV cases is a “correction,” a question arises about the psychiatric status of those cases who develop a lasting identification with the assigned gender. The examples above show that there is no clear scientific solution based on etiology alone to the psychiatric categorization of behavior and identity outcomes of pathological medical conditions.

On the basis of some of the biological studies referred to above, some organizations and quite a few transgender activists have embraced the notion of GIV as firmly biologically grounded (e.g., Gender Identity Research and Education Society [GIRES], 2006; Winter, 2009). This is clearly premature for several reasons. (1) Leading investigators have criticized several of these biological studies on methodological grounds (e.g., Herbert, 2008). (2) Each of these biological findings is in need of replication by independent, high-quality laboratories. (3) The hypothesis of CNS-limited “intersexuality” as the basis of GID development has most plausibility for the early-onset form of GID with its well established cross-gender shift in many gender-related behaviors, including later sexual orientation. It has little plausibility for the explanation of the late-onset form of GID, which in many cases seems to develop in the absence of a history of markedly gender-atypical behavior of childhood.

Apart from the biological theories of GIV, there are a number of other explanatory models. Updating earlier psychoanalytic interpretations, several clinician-researchers have hypothesized from the perspective of developmental psychopathology that the development of GID is based on processes involving temperamental vulnerabilities and particular patterns of parent–child interaction (Coates, 1990; Di Ceglie, 1998; Zucker & Bradley, 1995). Others perceive gender transitions in at least some (non-intersex) individuals “as a solution—a way out of some form of social, psychological, or developmental paralysis” that is initially unrelated to issues of gender (Levine & Solomon, 2009). In yet another clinically based theoretical approach, the root of late-onset male-to-female transsexualism is seen in autogynophilia as a form of transvestic fetishism (Blanchard, 1989; Lawrence, 2007), also conceptualized as an “erotic target location error” (Freund & Blanchard, 1993; Lawrence, 2009). This theory has led to particularly acerbic controversies, and its specificity has recently been questioned by new empirical data (Moser, 2009; Nuttbrock et al., 2009a).

Self-system theory has led to different psychological models. For instance, Doorn, Poortinga, and Verschoor (1994), in modifying the theory of Docter (1988), postulated the existence of two gender identity subsystems of the self, one feminine, the other masculine, which may differ in relative strength and may be conditionally or unconditionally expressed. Bockting (2009a) introduced stigma as an additional

factor that affects the relative strength of subsystem expression. In an extensive study of female-to-male transsexualism, Devor (1997) developed a detailed process model of transsexual development, which attributes an important etiologic function to certain family dynamics in the context of a bi-gendered patriarchal society. In parallel to the observation I made earlier in conjunction with the biological intersex model, Devor (1997, p. 67) argued that the psychological formation of transsexualism in reaction to unhealthy family dynamics does not necessarily imply pathology of the resulting identity.

One also needs to take into consideration that there are types of identity formation other than those related to gender, such as in people who identify with amputees to the extent that they request limb amputation (“Body Integrity Identity Disorder”; First, 2005; Lawrence, 2006), for which a specific biological basis representing a putative natural variation is hard to imagine. Perhaps it can be better understood as a form of identity development that Wilkinson-Ryan and Westen (2000) have described as “role absorption” in patients with borderline personality disorder. A similar new case report documents the co-occurrence of a desire for a non-mutilative disability with transsexualism (Kolla & Zucker, 2009). In any case, it is difficult to justify the term “natural” variation for a condition that compels the respective individual to severely alter a healthy body by gonadectomy with attendant infertility and the replacement of intact primary and secondary sex characteristics with those of the other gender.

At this stage of our knowledge, none of the proposed theories of gender development are sufficiently empirically validated to permit firm conclusions regarding the delineation of psychopathologic from normal processes. In particular, the conceptualization of GIV as a fully biologically based identity that is accidentally embedded in a body of incongruent sex is not easy to ground in empirical evidence (see also Blanchard, 2008). Also, it seems entirely conceivable that there are more pathways to GIV than one. Perhaps the solution of this issue has to await the application of computational models of normal and dysfunctional brain operations within theoretical neuroscience to the sexual differentiation of brain and behavior (Thagard, 2008).

### Impairment and Distress

In the development of DSM-III, “impairment” and/or “distress” became the primary criteria for the categorization of a behavioral condition as a “mental disorder.” This is echoed in a paper by Wakefield and First (2003) who suggested that “GID” without “impairment” or “distress” should just be classified as a “dysfunction,” which attains status as a “mental disorder” only when combined with “impairment” and/or “distress.” It seems to me, however, that the definition of “dysfunction” is the same as, and not less problematic

than, that of “pathology.” Also, some authors (e.g., Langer & Martin, 2004) have questioned the presence of psychiatric dysfunction in individuals with GIV altogether. Moreover, what defines “impairment” and “distress”? DSM-IV and DSM-IV-TR state that the diagnostic features of GID must include “persistent discomfort about one’s assigned sex or a sense of inappropriateness in the gender role of that sex.” The text further states:

Distress or disability in individuals with GID is manifested differently across the life cycle. In young children, distress is manifested by the stated unhappiness about their assigned sex. Preoccupation with cross-gender wishes often interferes with ordinary activities. In older children, failure to develop age-appropriate same-sex peer relationships and skills often leads to isolation and distress, and some children may refuse to attend school because of teasing or pressure to dress in attire stereotypical of their assigned sex. In adolescents and adults, preoccupation with cross-gender wishes often interferes with ordinary activities. Relationship difficulties are common, and functioning at school or at work may be impaired.” (American Psychiatric Association, 2000, p. 577)

As a clinician working with such children, I see several problems with this paragraph (all of which are in need of more systematic empirical documentation). (1) When one takes the developmental history of preschool children with GID, the initial features are not gender dysphoria, but gender-atypical temperament and activity preferences, and, in many boys, unusual sensory sensitivities (Coates & Wolfe, 1995). (2) In non-GID children, “preoccupation” is not limited to gendered activities. For instance, DeLoache, Simcock, and Macari (2007) found “extremely intense interests” in nearly a third of a sample of 84 boys and 93 girls (aged 11 months to 6 years of age) from predominantly white middle class families in the U.S., with a boy:girl ratio of 3:1. (3) In young children with GIV, gender “dysphoria” appears to develop when the cognitive development is far enough advanced and if the gender-atypical inclinations are criticized and opposed by the parents and others. (4) Gender segregation in the peer group is normative in childhood and not labeled “impairment” if it is gender-typical. Is it not appropriate for a highly gender-atypical child to affiliate with the peer group that is more compatible with his or her gender behavior, especially if it also offers more acceptance (as shown by Wallien, Veenstra, Kreukels, & Cohen-Kettenis, 2009)? (5) Many later problems (e.g., school refusal) appear to be secondary to the child’s experience of stigmatization of the gender-atypical behavior. (6) In the general population, individuals vary considerably in stress responsivity and emotional coping, and, in my clinical work, I am impressed by a similar variability of individuals meeting criteria for GID or GIDNOS.

There also seems to be considerable intraindividual variability in gender-related distress over time. I am, therefore, not convinced that—in the absence of systematic documentation of distress—it is appropriate to routinely attribute “inherent distress” to all who want to change gender (Zucker, 2006). If one postulates “inherent distress,” would one not also have to attribute something like “body dysphoria” to patients with somatic diseases or disorders who decide for surgery (say, of a facial wart) or radiation treatment (of cancer) and thereby label them as having a “mental disorder”? On the other hand, limiting the disorder category of GIV to those with marked distress would imply the exclusion from medical assistance of those without.

### GIV-associated Psychopathology

By definition, persons with the more marked degrees of GIVs are included in the DSM, because of the assumption that their condition includes clinically significant distress and/or impairment. In fact, McHugh (2004) noted as one of the main arguments for closing the Hopkins clinic in 1979 (when he was chair of the respective psychiatry department) that despite undergoing SRS, which few later regretted, the patients “had much the same problems with relationships, work, and emotions as before.” McHugh concluded that “human sexual identity is mostly built into our constitution by the genes we inherit and the embryogenesis we undergo.... Sexual dysphoria...can be socially induced in apparently constitutionally normal males, in association with (and presumably prompted by) serious behavioral aberrations.” Thus, for him, providing psychiatric and medical assistance towards SRS was “collaborating with madness.” (Note, however, that McHugh’s etiologic formulations are not based on solid empirical evidence, and that the pessimistic evaluation of SRS outcome is not shared by follow-up studies.)

In the developments leading up to the removal of homosexuality from the DSM, the demonstration that there were homosexuals who led productive and satisfied lives without demonstrable psychopathology constituted an important argument against the notion of homosexuality as a pervasive mental disorder. Although significant associated psychopathology has been seen in both DSD (Schützmann, Brinkmann, Schacht, & Richter-Appelt, 2009) and non-DSD gender-dysphoric persons (Clements-Nolle, Marx, & Katz, 2006; Levine & Solomon, 2009; Nuttbrock et al., 2009a), this is by no means universal. It is often not seen in young children with GID (Zucker & Bradley, 1995), and not in all adolescents and adults with GID before they undergo hormonal and surgical measures associated with gender reassignment (Cohen-Kettenis & van Goozen, 1997; Smith, van Goozen, & Cohen-Kettenis, 2001; Smith, van Goozen, Kuiper, & Cohen-Kettenis, 2005; Wallien & Cohen-Kettenis, 2008), and

the rates of psychiatric problems after assignment to the desired gender diminish (Murad et al., 2009; Pfäfflin & Junge, 1998). Moreover, much of psychiatric distress and suicidality seen in transgender persons can be statistically accounted for by the effects of stigmatization itself (Nuttbrock et al., 2009b) and is therefore not necessarily inherent in persons with GID. On the other hand, other psychiatric diagnoses, such as PTSD, are validly made as attributes of individuals, although their origin has been an external event or chronic stressful situation. One has to realize, of course, that even if GID is associated with increased risk of other psychopathology, its definition as a mental disorder should stand on its own feet and not rely on “co-morbidity” (in itself a term that implies GID as “morbid-ity”).

### The Label of “Mental Disorder” as a Source of Added Stigma

The label, “mental disorder,” can be stigmatizing, as is well documented (e.g., Link & Phelan, 2001; Winter, 2009), and psychiatric nomenclature changes have repeatedly been made in order to diminish the stigmatization associated with certain well-established categories. Transgender advocates have cited examples of the use of the categorization of transgenderism as a mental illness to the detriment of transgender persons in child custody disputes, employment, access to security clearances, marriage continuation, serving in the military, receiving mental or physical health services, and establishing policies for civil-rights protection (Vance et al., 2009). Winter et al. (2009) conducted a world-spanning seven-country study of transprejudice directed at “transwomen” (male-to-female transsexuals) using a 30-item questionnaire and non-orthogonal factor analysis. The by far largest factor, which accounted for 30% of the total variance, included some items with clear references to mental illness (e.g., “Transwomen...” “1. are men with something wrong in their mind”, “4. are mentally disordered”) and others that could be—somewhat loosely—so interpreted (e.g., “7. are sexual perverts”, “17. have unstable personalities”) and was, therefore, labeled “Mental Illness.” Participants viewing transwomen as mentally ill tended to avoid any form of contact with them, as well as to deny them the status or rights of women. Winter et al. used their findings as a strong argument for removing GIVs from the psychiatric nomenclature.

Of course, there is always the question how much of social stigma is associated with the observable gender atypicality rather than the psychiatric label by itself. In addition, some explicit categorization of people with conditions that require therapeutic intervention is necessary as a prerequisite of clinical and scientific communication. Some transgender advocates also cite prospective benefits other than insurance coverage for mental and physical health services from retaining the psychiatric categorization: preventing misdiagnosis of

transgender individuals with other mental illness categories; facilitating acceptance of the person's gender identity by family and employers; legitimizing the condition; guiding research; and furthering the development of transgender services (Vance et al., 2009). At the same time, strong anti-discrimination efforts by organizations such as the National Alliance on Mental Illness are showing increasing success. Thus, the cost–benefit ratio of a psychiatric label may gradually shift towards the benefit side.

### Psychiatric Treatment Versus Anatomic Accommodation

Usually, psychiatric treatment focuses on the reduction of psychological symptoms. Psychiatric treatment of GID would, therefore, imply the reduction of the cross-gender identification and the same-gender dysphoria. Yet, treating GID adolescents with puberty-suppressing medications, and treating GID adults with cross-gender hormones and genital surgery, and thereby inducing hypogonadism and infertility (reversible when done by GnRH analog treatment in the adolescent, irreversible when done by gonadectomy in the adult), means modifying the somatic pubertal development and the congenital body anatomy in order to accommodate, “confirm,” or “affirm” the atypical identity (Hembree et al., 2009). The key symptom of atypical gender identity is also supported, when a young child is sent to school in the desired gender, with a corresponding gender-specific name, haircut, and clothing, as has happened with a number of recent cases in the U.S. (e.g., Cloud, 2000; see also Brill & Pepper, 2008, pp. 153–192). Within psychiatry, these are certainly unusual treatment approaches, as has been noted by others (e.g., Federoff, 2000; McHugh, 2004). If the treatment is not really “psychiatric,” can the categorization of GID as a mental disorder be maintained? Or should the psychiatric disorder be reconceptualized and cross-gender identity be removed from the criteria? At the very least, GID is an unusual psychiatric category, in that it is based on an incongruence between the assigned gender (usually based on the genital appearance) and the experienced gender, and the most successful intervention to date for adults in terms of patient satisfaction appears to be hormonal and surgical body modification.

### Justification of Treatment if GID is not a Disorder

Regardless of its categorization as mental disorder or not, GID in childhood requires mental health evaluation and counseling, and GID in adolescence and adulthood requires both along with medical services. For instance, no service provider would want to have individuals go through gender re-assignment and/or medical treatment whose GIV is expressed in the context of a severe psychosis and therefore

more likely to be transient (Borras, Huguelet, & Eytan, 2007). Moreover, the economic problems caused by the escalating costs of health care in general will increasingly require justifications of expensive and chronic medical treatments and set limits to service provisions on demand. One also has to take into consideration the widespread existence of stigma and violence against transgender persons that makes legal protections desirable.

What would happen if GID was removed from the DSM? According to Franklin Romeo, JD, of the Sylvia Rivera Law Project, a nonprofit organization providing legal services for transgender persons (<http://www.srlp.org>), the DSM status of “GID” is crucial in legal proceedings concerning access of people with GID to health care and in sex-discrimination claims, especially disability discrimination claims (Romeo, 2008; see also Currah, Juang, & Minter, 2006). In Romeo's view, the removal of GID from DSM would have “catastrophic” consequences for the legal settlements of such cases. In this context, one needs to remember that human rights approaches and medical pathology classifications can coexist as illustrated by current disability-protection regulations. Note the admonition by Levine and Solomon (2009) that “emphasis on civil rights is not a substitute for the recognition and treatment of associated psychopathology.”

### Options for GIVs in DSM-V

Several options need to be considered for the DSM revision: (1) Retaining the “GID” label; (2) narrowing the psychiatric categorization of GIVs and changing the label; (3) declaring GIVs non-psychiatric medical conditions (e.g., neurologic disorders); (4) removing GIVs from both DSM and ICD; and (5) removing GIVs from the Axis-I psychiatric disorders and creating a special DSM category.

#### Retaining the “GID” Label

Retaining GIVs under the term, “GID,” as Axis-I psychiatric disorders, probably with some modification of the criteria and text (see the papers by Zucker, 2009 and by Cohen-Kettenis and Pfäfflin, 2009) would have the advantage of not endangering the insurance coverage, where it exists, of psychiatric and medical procedures that are used in the evaluation and treatment of persons with GIVs, and of not placing at risk legal disability protections where applicable. However, such a decision would imply labeling GIV individuals without overt, significant distress and/or impairment and without associated psychopathology as mentally ill. It would also have the potential consequence of (at least indirectly) supporting and justifying GIV-discriminatory sentiments in the

population at large. Finally, the decision would not be helpful for the relationship between mental-health service providers and the transgender communities.

If GID is retained in the DSM, where should it be placed? Several arguments speak for retaining the supraordinate category “Sexual and Gender Identity Disorders.” Evaluation and counseling for sexual issues play a significant role for many adolescent and adult patients both in regard to sexual orientation and the impact of gender change on ongoing romantic, sexual, or marital partnerships. Moreover, sexual functioning may be markedly affected—positively as well as negatively—by gonadectomy, hormone treatment, and genital surgery. There is also the (highly controversial) issue of the role of transvestic fetishism in the development of late-onset GIV (which for some transgender advocates provides a strong motive for moving GIV away from a supraordinate category involving any paraphilias; see de Cuypere et al., 2009). Thus, clinicians dealing with adolescents and adults with GID should be trained and experienced sufficiently to deal with both the gender and the sexual aspects of their patients’ lives, which would be facilitated by retaining the combined supraordinate category. However, the explicit “disorder” term of the supraordinate category would potentially contribute to psychiatric stigmatization, and a respective modification of the grouping label should therefore also be considered.

To emphasize communalities of body-focused identity issues in various conditions, one could consider grouping “GID” together with other psychiatric syndromes that focus on body-related aspects of identity, with which GIV has at least superficial similarity. For instance, in Body Integrity Identity Disorder (First, 2005), patient satisfaction is based on the removal of a limb and, thereby, acquisition of the status of visible body impairment. Patients with Anorexia Nervosa aim at achieving extreme degrees of body thinness. Patients with Body Dysmorphic Disorder are focused on imagined or exaggerated defects in the appearance of their body (American Psychiatric Association, 2000). And, finally, there are people who pursue castration (without medical indication) for a variety of reasons, for instance, for gender change to “neither male nor female” (Male-to-Eunuch GID) or to reduce libido (Brett, Roberts, Johnson, & Wassersug, 2007; Johnson, Brett, Roberts, & Wassersug, 2007; Money, Jobaris, & Furth, 1977; Wassersug & Johnson, 2007). Such a grouping might facilitate the exchange between professionals specializing separately on these individual syndromes and, thereby, foster comparative research, lead to new insights into identity development, and help formulate new treatment approaches. A drawback, however, would be the relative neglect of sexual aspects of the GIV conditions.

Separating GID from sexuality issues and making it a free-standing category of its own is advocated by some. However, that solution would run counter to the intent of the DSM to create meaningful groupings of psychiatric diagnoses, if such can be found.

### Narrowing the Psychiatric Categorization

One way of diminishing the psychiatric stigma potential of the diagnostic term “GID” would be the limitation of the psychiatric diagnosis to those who are distressed about living with a gender assignment they experience as incongruent with their sense of self and to change the term to “gender dysphoria” or “gender dissonance” (Bockting, 2009b; Lev, 2005; Winters, 2005), i.e., remove the “disorder” label (preferably also from the supraordinate category). Thus, gender-related dysphoria would now become the major criterium of the diagnosis, and the identity criterium removed, which would address one of the major complaints by many in the transgender communities. The term would not apply to persons who have undergone gender change and are now satisfied with their new gender, unless it is combined with some specification such as “in remission,” which is needed to justify continued medical and mental-health services (Bockting & Ehrbar, 2005). It would also not apply to children engaging in extensive cross-gender activities or even living in the desired gender without symptoms of gender dysphoria (although they could be considered at risk of gender dysphoria if pressure towards social conformity should increase in their social environment). One task force suggested the term “gender discordance” for adults with GIV who do not repudiate their congenital somatic sex characteristics (Washington Psychiatric Society, 2009); in contrast to DSM-IV-TR, this group also recommended to include distress in response to social stigma in the diagnostic criteria. Another way of narrowing the diagnosis had been proposed by Richardson (1999), who, in the case of children, wanted to limit the diagnosis to those who employed cross-gendered interests “in a pathological way”: “Cross-dressing or cross-gender play could be required to be joyless, compulsive, fraught with rage or anxiety, or frankly dissociative to qualify for inclusion.” The existence of such children, however, is yet to be documented. In either case, the narrowing of the diagnostic term would meet some of the major criticisms of the current “GID” diagnosis. Yet, it would disadvantage individuals who seek medical treatments in the absence of significant distress or associated psychopathology and possibly even those parents who seek help from mental-health specialists in dealing with their GIV children.

## Declaring GIV a Neurologic or Medical Disorder

Another recurrent suggestion on how to address the issue of label-related psychiatric stigma is to change “GID” from a psychiatric to a neurologic or neurocognitive disorder. This is supported by the gradually accumulating findings from brain imaging and neuroanatomic studies that suggest a neuroanatomic basis of GIV development (see references listed earlier). However, on the one hand, hardly any of the scattered findings have been replicated to date, and their functional implications are not yet understood; thus, the evidence base is still insufficient. On the other hand, given the ongoing rapid advances in the neurosciences, the demarcation of “psychiatric” from “neurologic” becomes an issue throughout psychiatry and neurology, and a solution of this issue for one isolated category such as “GID” rather than for the two fields overall in a systematic manner seems inappropriate.

The related suggestion of removing GIVs from the DSM and relabeling them “medical conditions” (e.g., Lev, 2005) runs into two major problems. One is that, in non-DSD GIVs, the reproductive tract and body as a whole appear healthy, the other that neither endocrinologists nor surgeons are trained to provide the diverse mental-health services needed and sought by many individuals with GIV and their families. Referral to such mental-health services would often run into problems of insurance coverage, and the availability of respective specialists diminish further, when there is no representation of GIV-related problems in the DSM.

## Removing GIV from Both DSM and ICD

Finally, many persons with GIVs and activists advocate the removal of GIVs from both the psychiatric and medical “disorder”/“disease” nomenclature, in analogy to the fate of the homosexuality label in the 1970s and to phenomena such as “left-handedness” or “non-righthandedness,” which never entered the DSM or ICD systems. For instance, Pickstone-Taylor (2003) recommended the term “gender nonconformity” to indicate that GIV does not constitute psychopathology. Obviously, this would preclude insurance coverage for treatment procedures under current regulations in many countries and even potentially jeopardize legal protections under disability regulations.

Some authors have recommended to remove GIV for children from both DSM and ICD, but leave GIV for adults in the DSM, possibly with significant modifications. This approach has recently been implemented by the Swedish government for the Swedish version of the ICD-10 in order to reduce stigmatization, while “transsexualism” has been retained because of the need for medical procedures in the course of gender reassignment (International Foundation for Gender Education, 2008). This splitting of child and adolescent/adult GIVs does not seem warranted on both scientific and clinical grounds. Although the

rate of desisters from a long-term transgender development is higher in young children than in adults, the difference is only a matter of degree and diminishes with age. The expanding use of puberty-blocking agents in the clinical management of young adolescents with GID also requires some justification in terms of an illness or disorder model.

## Creating a Special Category for GIVs

As outlined earlier, “GID” as a psychiatric condition is unique. We do not have clear criteria to differentiate normal from pathologic identity developments, the distress/impairment criteria do not seem to apply universally, the prevalent treatment of “GID” in adulthood consists of the hormonal and surgical alteration of a healthy body, and mental-health specialists are needed for diagnostic screening, adjustment guidance, and dealing with the effects of social stigma. This constellation of problems appears to require breaking the Procrustean bed of the current DSM classification system.

I suggest, therefore, that the special status of the GIV condition be recognized by using a clear descriptive term, “gender incongruence” (already used in the text of DSM-III-R), now defined as “the incongruence of one’s gender experience and expression with one’s assigned gender and, where applicable, one’s congenital primary and secondary sex characteristics.” Thus, distress or impairment would not be a necessary part of the categorization. Instead, it should be graded as a specifier dimension, along with the experience and anticipation of stigmatization, if any, and the additional specifier “post-transition” where applicable. Individuals with Gender Incongruence associated with a somatic DSD could be classified as a subtype. The Gender Incongruence text would explain the unusual status of the GIV condition between psychiatry and non-psychiatric medicine in need of specialized mental-health and medical services, but not classify it as a psychiatric disorder per se. This formulation will probably reduce the stigma potential of the label. On the other hand, the retention of a special category for GIV in the DSM will make it more likely that health and mental-health service providers identify children with GIV early, which then provides opportunities for early needs assessment and access to care including transpositive, i.e., cross-gender supportive approaches (Bockting & Ehrbar, 2005; Cohen-Kettenis, 2001), and that anti-discrimination efforts continue to be supported. If the overall DSM-IV structure should be carried over into DSM-V, “Gender Incongruence” would have to be placed under “Other Conditions that May be a Focus of Clinical Attention,” but its insurance coverage would need to be explicitly backed by respective declarations of professional organizations such as the American Medical Association and the American Psychiatric Association. It would be preferable, therefore, if DSM-V either redefined this section, or create a new section formulated so that it

would facilitate the insurance coverage needed. (One suggestion from the WPATH consensus group [de Cuypere et al., 2009] was the relocation of the GIV category to a potential new supraordinate category for DSM entitled “Psychiatric conditions related to a medical condition,” but, as argued earlier, the justification for a “medical condition” is problematic.)

## Conclusions

GIVs fall onto a spectrum or continuum ranging from mild presentations such as gender-atypical behavior (e.g., “tomboyish” behavior of girls) without effect on core gender identity through presentations of clinical relevance such as, in males, the repudiation of certain anatomic and physiological features of manhood without the desire for changing into a female (e.g., Male-to-Eunuch GID; Wassersug & Johnson, 2007), to the desire for full gender transition including the acquisition of the somatic characteristics of the other gender. Characteristic of the entire spectrum is behavioral or psychological gender atypicality relative to the statistical norm, which can be readily quantified as a behavioral dimension. The more extreme cases are GIVs, that is, they show incongruence between their assigned gender with its associated societal role expectations on the one hand and their subjective experience of gender identity and the associated desire for gender expression on the other. In the absence of an empirically grounded detailed theory of the mechanisms and processes of gender identity development, the available empirical evidence does not permit a categorical, universally valid statement that GIVs are or are not mental disorders. With GIV-accepting parents, both young children of preschool age and early adolescents do not necessarily show significant distress or impairment, especially if they are shielded from stigmatization by others in their social environment. The same is true of many post-SRS trans men and trans women. Even expressions of distress in adult pre-SRS individuals with GIV who are approaching or are in the process of somatic and legal gender change are highly variable and do not necessarily reach a clinically relevant degree of emotional distress. Therefore, a universal term involving a reference to emotional stress such as “Gender Dysphoria” also does not seem appropriate. Instead, a term such as “Gender Incongruence” as defined above appears to be more widely applicable to the various presentations of GIVs. In addition, DSM-V needs to address, and possibly categorically distinguish between, GIV persons “in remission” (in the sense of vanished cross-gender desire [Marks, Green, & Mataix-Cols, 2000]), “post-transition” with good adjustment, and “post-transition” with regret (Olsson & Möller, 2006). Moreover, as clinical evidence indicates that there are individuals with great uncertainties about their gender, individuals who waver back

and forth between their desired and their natal gender, individuals for whom the pursuit of gender change appears to be a way out of other (non-gender based) problems, and individuals where GIV is just secondary to a psychotic process, specific subthreshold or “NOS” terms should be defined.

It is clear that the decision on the DSM- or ICD-categorization of GIVs cannot be achieved on a purely scientific basis. Instead, scientific issues need to be considered in combination with the service needs of persons with GIVs and the psychosocial implications of DSM formulations for such persons, when one works towards a consensus among stakeholders regarding a pragmatic compromise.

**Acknowledgments** Brief, preliminary versions of this paper were presented at the Annual Meeting of the American Academy of Child and Adolescent Psychiatry in Chicago, IL, October 28–November 2, 2008, and the Annual Meeting of the Society for Sex Therapy and Research in Arlington, VA, April 2–5, 2009. The draft of this paper benefitted from discussions among, and direct feedback from, the members of the GID Subworkgroup (Peggy T. Cohen-Kettenis, Jack Drescher, Friedemann Pfäfflin, Kenneth J. Zucker, and the author) of the Sexual and Gender Identity Disorders Work Group for DSM-V of the American Psychiatric Association, and from Jamison Green as Work Group Advisor. Although the author is a member of this APA Work Group, this paper does not represent the position of the Work Group or the APA, but the author’s own perspective. Patricia Connolly assisted in bibliographic work and in word processing. This work was supported, in part, by NIMH grant P30-MH-43530 (P.I.: Anke A. Ehrhardt, Ph.D.). Reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders V Workgroup Reports* (Copyright 2009), American Psychiatric Association.

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