

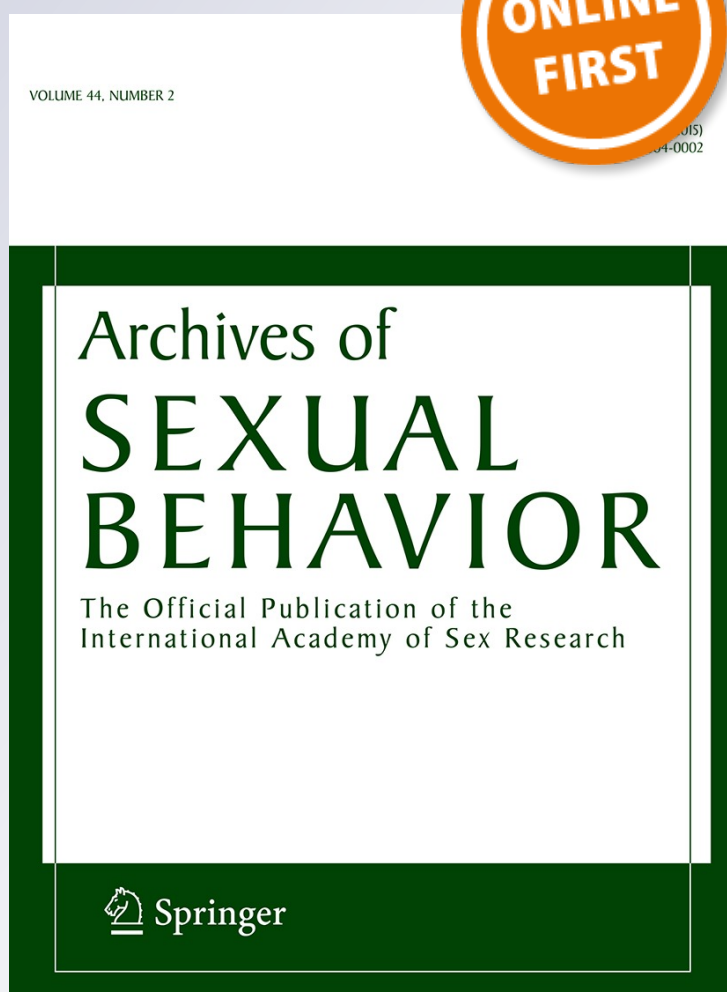
# *Fusion with the Cross-Gender Group Predicts Genital Sex Reassignment Surgery*

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# Fusion with the Cross-Gender Group Predicts Genital Sex Reassignment Surgery

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**Abstract** Transsexuals vary in the sacrifices that they make while transitioning to their cross-gender group. We suggest that one influence on the sacrifices they make is identity fusion. When people fuse with a group, a visceral and irrevocable feeling of oneness with the group develops. The personal self (the sense of “I” and “me”) remains potent and combines synergistically with the social self to motivate behavior. We hypothesized that transsexuals who felt fused with the cross-gender group would be especially willing to make sacrifices while transitioning to that group. Our sample included 22 male-to-female (MtF) and 16 female-to-male (FtM) transsexuals. Consistent with expectation, those who were fused with their cross-gender group (1) expressed more willingness to sacrifice close relationships in the process of changing sex than non-fused transsexuals and (2) actually underwent irreversible surgical change of their primary sexual characteristics (vaginoplasty for MtF transsexuals and hysterectomy for FtM transsexuals). These outcomes were not predicted by a measure of “group identification,” which occurs when membership in the group eclipses the personal self (the “I” and “me” is subsumed by the group; in the extreme case, brainwashing occurs). These findings confirm and extend earlier evidence that identity fusion is uniquely effective in tapping a propensity to make substantial sacrifices for the group. We

discuss identity fusion as a social psychological determinant of the choices of transsexuals.

**Keywords** Transsexualism · Identity fusion · Gender dysphoria · Gender identity · Gender identity disorder

## Introduction

Identity fusion refers to a process wherein people develop a visceral sense of “oneness” with a group (Swann, Jetten, Gómez, Whitehouse, & Bastian, 2012). So deep is this union between the “personal self” (which refers to unique qualities of the individual) and “social self” (which refers to the groups with which the individual is aligned) among fused persons that the boundary between the two become highly porous. This porous border fosters the perception of a powerful union between a strong personal self and a strong social self. The personal and social self thus combine synergistically to motivate fused individuals to make significant sacrifices for the group.

The research literature supports the notion that identity fusion is a potent predictor of pro-group action. For example, those whose personal identities were fused with their country were particularly likely to endorse fighting and dying for that country. In fact, over three dozen studies have demonstrated links between identity fusion and various pro-group activities (e.g., Gómez et al., 2011a; Gómez, Morales, Hart, Vázquez, & Swann, 2011b; Swann, Gómez, Dovidio, Hart, & Jetten, 2010a; Swann, Gómez, Huici, Morales, & Hixon, 2010b; Swann, Gómez, Seyle, Morales, & Huici, 2009; Swann et al., 2014a, b). We build on this past work here. In particular, whereas past researchers have shown that identity fusion influences the decisions of established group members, we ask if fusion will predict the decisions people make when transitioning into a group. Specifically, in a sample of transsexuals who voluntarily reported to a gender identity

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clinic, we asked if identity fusion would predict willingness to compromise their relationships and undergo sex-reassignment surgery.

Transsexuals are interesting to group psychologists because their condition centers around dissatisfaction with the social group they were assigned to at birth. In fact, the discomfort they feel about their natal sex or “gender dysphoria” is typically the main symptom causing patients to seek treatment (American Psychiatric Association, 2013). Both types of transsexuals, female-to-male (FMFs) and male-to-female (MFs), display uneasiness with their natal sex and express interest in aligning themselves with their cross-gender group through cross-sex hormonal treatment and surgical sex reassignment (Meyer et al., 2001). Yet, reassignment is not uniformly easy or successful. For example, MtFs who display more psychopathology, more gender dysphoria symptoms in childhood, or less gender dysphoria at time of application run a greater risk of dropping out of treatment (Smith, Van Goozen, Kuiper, & Cohen-Kettenis, 2005).

Just as gender dysphoria and other psychological processes may motivate transsexuals to eschew their natal sex (Smith et al., 2005), other psychosocial processes may motivate them to embrace the cross-gender. At least two sets of processes may be relevant here. One process is suggested by the fact that transsexuals sometimes report believing that they *already belong* to the cross-gender group prior to seeking treatment. The perception that the self already belongs to the group is a hallmark of the process of identity fusion. When fusion occurs, a strong personal self joins with, and gains strength from, a strong social self. Such feelings of identity fusion may foster powerful convictions that the fused person should do whatever it takes to join the group. These feelings may motivate fused transsexuals to take active steps to transition to the cross-gender identity.

To those who are unfamiliar with theory and research on group identity, identity fusion may seem indistinguishable from strong group identification. Although both constructs entail alignment of the individual with the group, they differ in important ways. A key difference is in what happens to people’s personal identities when they become aligned with the group. For fused persons, immersion in the group strengthens the personal identity, allowing them to retain a gut sense that they are independent agents who are allied with a group. In contrast, for strongly identified persons, immersion in the group eclipses the personal identity (in extreme cases, this is dubbed “brainwashing”). Strongly identified persons therefore forfeit their sense of “I” or “me” and become agents of the group (e.g., Tajfel & Turner, 1979). These differences between fusion and identification have profound motivational consequences. Specifically, fused persons will be motivated by their gut sense of “I” or “me” as well as their sense of themselves as group members. Strongly identified persons will be motivated by their sense of themselves as group members only. As such, identification will be a relatively weak predictor of pro-group action

although it will predict other variables, such as stereotyping and derogation of outgroups (see Hornsey, 2008).

The foregoing analysis also suggests that fusion and identification will be at least somewhat independent. For example, transsexuals who forfeit their personal self to the group will be strongly identified but not fused with the cross-gender group. In contrast, transsexuals who retain a potent personal self but do not fully embrace the cross-gender social identity will be fused but only moderately identified with the cross-gender group. Of greatest relevance to the research featured in this report, because fused persons are motivated by their personal and social self, fusion will be a stronger predictor of the completion of sex reassignment procedures than identification.

We used measures of identity fusion and identification to predict three measures associated with sex reassignment. First, we assessed willingness to undergo sex reassignment surgery (SRS) of the primary and secondary sexual characteristics linked to their natal sex. Second, we measured willingness to endure relationship difficulties associated with the stressful process of renegotiating their gender identities with relationship partners (Swann & Bosson, 2008). Third, we assessed actual SRS of their primary sex characteristics (vaginoplasty for MtFs and hysterectomy for FtMs).

We expected that fused participants would be especially inclined to express willingness to undergo the procedures designed to change their sex and endure relationship difficulties. Furthermore, we expected that fused participants would be more likely to actually undergo SRS on their primary sex characteristics than non-fused participants. In keeping with past evidence that identity fusion is a stronger predictor of pro-group behavior than group identification, we expected that fusion would also outperform identification in predicting our outcome measures.

## Method

### Participants

A total of 38 transsexual volunteers (22 MtF and 16 FtM; M age = 31.37 years,  $SD = 8.63$ ) from the Gender Identity Unit at the Hospital Clínic of Barcelona, Spain were consecutively recruited. All participants presented early onset gender dysphoria and were sexually attracted to persons of the same natal sex. No potential participants declined to participate. Most were Spaniards (69.4 %). The remainder were from South America (25 %), Canada (2.8 %), and other European countries (2.8 %). Patients incurred no cost for vaginoplasty and hysterectomy, as the Autonomous Community of Catalonia sponsored health insurance supports various sex reassignment therapies with the exception of phalloplasty.

The Gender Identity Unit ascribes to the Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming

People of the World Professional Association for Transgender Health (Coleman et al., 2011). The research was conducted in accordance with the Declaration of Helsinki. Study approval was acquired from the Ethical Committee of the Hospital Clinic of Barcelona, and written informed consent was obtained from the subjects.

All participants were diagnosed clinically according to the revised fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR; American Psychiatric Association, 2000) and the tenth revision of the International Classification of Diseases (ICD-10; World Health Organization, 1993). The diagnoses were based on several semi-structured interviews conducted by a psychiatrist and psychologist (Gómez-Gil, Trilla, Salamero, Godás, & Valdés, 2009). All transsexuals selected for this study evidenced early-onset gender nonconformity, were erotically attracted to females (FtMs) or males (MtFs), and were interested in sex reassignment. The inclusion criterion was assignment to the hormonal replacement therapy program. Exclusion criteria for all participants were: (1) history of head trauma; (2) evidence of a neurological disorder or major medical condition; and (3) history of drug or alcohol abuse or dependence. We excluded three potential participants from the final sample, two for history of alcohol abuse and one for history of drug dependence.

## Measures and Procedure

A psychiatrist introduced participants to an investigation of their feelings and attitudes toward their natal and cross-gender group. Participants completed Swann et al.'s (2009) pictorial measure of identity fusion (cf. Schubert & Otten, 2002) with reference to their cross-gender identity "Male/Female." From a series of five overlapping circles, participants selected the option that best reflected their relationship to the cross-gender group. As in earlier research on identity fusion with country, we intended to treat fusion as a dichotomous variable, such that participants were considered fused only if they endorsed the "E" option in which the self was completely overlapping with the group (for a discussion and justification, see Swann et al., 2009). Rate of fusion with the cross-gender group in this sample was 60.5%. The rate of fusion with the cross-gender group was higher among MtFs than FtMs,  $\chi^2(1, N = 38) = 6.13, p = .013$ , Fisher exact test,  $p = .02$ , 77.3 versus 37.5%, respectively.

Participants also completed Mael and Ashforth's (1992) Identification Scale, a 6-item measure that focuses on the degree to which people identify with a group (e.g., "When someone criticizes (men/women), it feels like a personal insult," "[Men/women's] successes are my successes," "When someone praises [men/women], it feels like a personal compliment" with response options ranging from 0 (not at all) to 10 (totally). Although one item was deleted due to an oversight, the resulting 5-item scale was still internally consistent,

Cronbach's  $\alpha = .75$  (for a justification of our decision to use this scale, see Gómez et al., 2011a). The correlation between fusion (treated dichotomously) and identification was moderate,  $r(36) = .38, p < .05$ . Analyses of scores on the identification scale revealed that MtFs scored higher,  $M = 8.01, SD = 1.15$ , (ranges from 7.50 to 8.52) than FtMs,  $M = 6.69, SD = 1.34$  (ranges from 5.97 to 7.40),  $t(36) = 3.26, p = .002$ .

Following the measures of fusion and identification, participants completed measures of willingness to undergo surgical alteration of their secondary (chest contour, nose and body fat distribution) and primary (genitals) sexual characteristics on scales ranging from 0 (not at all) to 6 (totally). Next, using the same scale, participants completed the measure of *willingness to sacrifice close relationships*, rating their agreement with two items: "I would sacrifice the relationship I have with my friends to be a man/woman," "I would sacrifice the relationship I have with my family to be a man/woman." Responses to these items were closely associated,  $r(36) = .87, p < .001$ , which provided a basis for summing them.

Participants also responded to some sociodemographic questions regarding housing arrangement (13.9% live alone, 38.9% with his/her partner, 33.3% with his/her family, and 13.9% with friends), marital status (83.8% not married, 2.7% married before change of sex, 13.5% married after the change of sex), and education (27.8% low, 47.2% middle, 25% high). In addition, we also recorded some clinical data such as the age of their first visit to the psychiatrist for gender identity concerns ( $M = 29.92, SD = 8.67$ ), hormonal self-treatment (72.2% without hormonal, 27.8% initiated hormonal self-treatment before the first visit), and age of initiating hormonal self-treatment ( $M = 25$  years,  $SD = 8.99$ ).

All patients remained under treatment at the same hospital throughout the investigation. Roughly 2 years (24–28 months) after they completed the original measures, the psychiatrist who was treating the patients consulted their surgical records. The psychiatrist simply recorded whether patients had undergone various procedures, including vaginoplasties for MtF patients, chest reconstruction and hysterectomies for FtM patients (no patients in the sample opted for phalloplasty, perhaps because insurance does not cover it).

## Results

To test our hypothesis that fusion would predict our outcome measures while controlling for identification and natal sex, we performed a series of multiple regressions.

### Willingness to Undergo Two Types of Surgeries

To determine if fusion and natal sex interactively predicted willingness to undergo surgery while controlling for

identification and natal sex, we performed a mixed model regression analysis. The predictors were: fusion with their cross-gender group (−1, 1), natal sex, (−1, 1), and identification (centered), all two-way interactions, and the triple interaction.

An interaction between fusion and willingness to undergo surgery emerged,  $F(1, 22) = 9.71, p < .01$ . Fusion had no impact on willingness to surgically alter secondary sexual characteristics,  $F < 1$ , possibly due to a ceiling effect ( $M = 5.5$  on a scale ranging from 0 to 6). In contrast, compared to non-fused, fused participants were more willing to surgically alter their primary sex characteristics,  $F(1, 30) = 11.86, p < .001, M = 5.61, SD = .94$  versus  $M = 2.67, SD = 2.32$ . The interaction qualified a main effect of fusion,  $F(1, 22) = 12.22, p < .001$ , such that fused participants were more willing to undergo surgery than non-fused,  $M = 5.12, SD = 1.76$  versus  $M = 4.21, SD = 1.76$ . Finally, a main effect of the repeated measure emerged,  $F(1, 22) = 6.31, p < .05$ , in that participants were more open to surgery involving secondary as compared to primary sexual characteristics,  $M = 5.49, SD = 1.48$  versus  $M = 4.13, SD = 2.01$ . No other effects were significant,  $F_s < 1.64$ .

#### Willingness to Sacrifice Close Relations with Important Others

A multiple regression analysis yielded the predicted main effect of fusion,  $B = .74, t(30) = 4.68, p < .001$ , with fused participants expressing more willingness to sacrifice close relationships with important others than non-fused,  $M_s = 5.22, SD = 1.08$  versus  $M = 2.27, SD = 2.06$ . No other main or interaction effects emerged,  $ps > .11$ .

#### Mastectomy and Chest Reconstruction for FtM patients

We used a binary logistic regression to examine the impact of fusion (effect coding: −1, 1), group identification (centered), and the interaction of fusion and identification on whether participants underwent mastectomy and chest reconstruction. No main or interaction effects emerged,  $ps > .30$ . Nearly all FtM participants, 87.5 % ( $n = 14$  of 16), underwent mastectomy and chest reconstruction. Therefore, the lack of differences between fused and non-fused participants could reflect a ceiling effect.

#### Surgical Alteration of Primary Sex Organs (Vaginoplasty/Hysterectomy)

We used a binary logistic regression to examine the impact of fusion and natal sex (both effect coding: −1, 1), group identification (centered), and the interaction of these three variables on whether participants underwent vaginoplasty or hysterectomy. A main effect of fusion emerged,  $b = 1.55, OR = 4.71, Wald \chi^2 = 4.47, p = .034$ ; Fisher's exact test,  $p = .036$ , such that 78.3 % of fused ( $n = 18$ ) versus 40 % of non-fused had surgical

alteration of their primary sex organs (due to the low  $n$  within the non-fused group that did the surgery,  $n = 6$ ). This effect emerged regardless of the natal sex of participants, their identification with their cross-gender group, and all interactions,  $ps > .17$ .

Although the analyses we report were based on treating fusion as a dichotomous variable, supplementary analyses in which fusion was treated as a continuous variable yielded similar results. Also, when all the sociodemographic or clinical variables were entered into a multiple regression as control variables with our main predictors (fusion, identification, and natal sex) and criterion variables (willingness to sacrifice close relationships and undergo surgery including secondary vs. primary sexual characteristics), no significant effects emerged, all  $ps > .09$ . Further, none of these predictors had a significant effect on whether or not participants underwent surgery (vaginoplasties or hysterectomies) or on their degree of fusion with the group, all  $ps > .18$ , according to binary regression analyses.

## Discussion

This was the first study of the links between identity fusion and the decisions transsexuals might make to attain the defining characteristics of their cross-gender group. Three key findings emerged. First, fused participants were especially inclined to express willingness to undergo SRS of their primary sexual characteristics (vaginoplasty or hysterectomy) but not their secondary sexual characteristics (likely due to ceiling effects on the latter measures). Second, transsexuals who were fused with the cross-gender group expressed more willingness to sacrifice relations with important others (family and friends). Third, 2 years after assessment of fusion, fused participants were more than twice as likely to have undergone surgical change (hysterectomy or vaginoplasty) than non-fused participants. Natal sex was unrelated to our outcome measures, thereby buttressing the generality of our effects.

Our findings also provided evidence for the discriminant validity of the fusion measure by showing that it predicted the outcome measures when we controlled for identification. In conjunction with recent evidence that fusion can also be measured effectively with a verbal scale (Gómez et al., 2011a), our data reinforce the notion that the predictive power of fusion is not an artifact of the properties of the specific measurement devices that have been used to measure fusion and identification. That said, future researchers might nevertheless examine whether our findings replicate using alternative measures of identification.

Whereas past research has shown that fusion predicts what existing group members are willing to do for their groups (Gómez et al., 2011a, b; Swann et al., 2009, 2010a, b, 2012, 2014a, b), we showed that fusion was also a potent predictor of the steps that *aspiring* group members take to become group members. Moreover, we examined new outcome measures, including psychosocial extreme sacrifices (loss of important

relationships) and surgical decisions. Furthermore, whereas past researchers (Smith et al., 2005) have identified variables (e.g., gender dysphoria) that motivate transsexuals to eschew their natal sex, our findings identified a variable (identity fusion) that appears to motivate transsexuals to embrace the cross-gender sex.

Our MtF participants were unusual in comparison to those in most Western countries in that all were homosexual relative to natal sex (i.e., androphilic). Future researchers might examine whether the relationship between fusion and the outcomes considered here would apply to nonhomosexual (gynephilic) MtFs as well.

### Limitations and Future Research

Any time a psychometric instrument (e.g., our measure of identity fusion) is used with a new participant population, there is the possibility that it may not be valid for that population. Although the measure of identity fusion has been used with participants from over 20 different countries with people ranging from college age to mid-life (Gómez et al., 2011a), the study reported here represents the first time it has been applied to a sample of transsexuals. Clearly, it would be helpful to see our findings replicated with a different sample of transsexuals from other countries.

Nevertheless, there are at least two reasons to believe that fusion was a valid and meaningful measure of our participant's alignment with their cross-gender group in our research. First, the fusion measure predicted stated willingness to endure several different forms of hardship (e.g., willingness to undergo surgeries and relationship disruption with important others) as well as actual behavioral decisions (i.e., vaginoplasty or hysterectomy). Second, the fusion measure predicted surgeries that occurred up to 2 years after the original assessment, suggesting that it was not only a valid predictor but a temporally stable one (for direct support for the temporal stability of fusion, see Swann et al., 2012). If the measure of fusion was an invalid or meaningless measure of alignment with the cross-gender group, it would not have been so effective in predicting multiple outcomes over a 2-year period. Finally, in light of Smith et al.'s (2005) evidence that gender dysphoria predicts completion of SRS, future research on identity fusion in transsexuals should include quantitative measures of dysphoria (Cohen-Kettenis & van Goozen, 2002; Deogracias et al., 2007; Singh et al., 2010).

These limitations notwithstanding, the utility of our pictorial measure of identity fusion in this context suggests that it might be useful in other clinical contexts. Recent research (Swann et al., 2012) has shown that it is temporally stable and strongly related to more comprehensive, verbal measures of fusion (e.g., "I am one with the group," "The group is me"). In addition, the simplicity and flexibility of the pictorial measure means that it can be used to measure fusion with numerous identities related to treatment. For example, patients who are fused with

identities that involve recovery (cancer survivors) may be more inclined to adhere to a treatment regimen (Horne & Weinman, 1999) than those who internalize negative identities (cancer patients). This hypothesis and related ones remain ripe for investigation.

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