Erotic Target Identity Inversions among Men and Women in an Internet Sample

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Abstract

Background: Erotic target identity inversions (ETII) are poorly studied paraphilias which involve sexual arousal by the idea or fantasy of being the object of one’s sexual desires.

Aim: To conduct a large non-clinical online survey to investigate self-reported sexual arousal, behavioral expression, and psychological correlates of four proposed ETIIs.

Methods: A total of 736 natal males and 549 natal females responded to items about self-reported sexual arousal to the idea of acting as an animal (autoanthropomorphozoophilia), idea of acting as a child or infant (autonepiophilia), natal males reporting arousal to the idea of acting as a woman (autogynephilia), and natal females reporting arousal to the idea of acting as a man (autoandrophilia). Data pertaining to sexual orientation, childhood gender nonconformity, gender identity discomfort, autism, masochism, and humiliation were also collected.

Outcomes: The main outcome was a measure of self-reported arousal and expression of the ETIIs being explored using four items: arousal level (-3-3) when imagining being the erotic target exemplar; frequency of engagement in dressing or behaving like their preferred target (0-4); strength of feeling that they would be better off as the target (0-4); and the frequency of consideration of making physical changes to look or function more like the target (0-4).

Results: Mild levels of reported sexual arousal to the idea of being the preferred erotic target was common among the four groups, characterizing about half of them. Gender identity discomfort was associated with autogynephilia, autoandrophilia, and autoanthropomorphozoophilia. Greater gender nonconformity was associated with autogynephilia, autoandrophilia, and autonepiophilia. Autism scores were associated with
autoandrophilia and autonepiophilia. Masochism was not associated with ETII scores, but humiliation was.

Clinical Translation: Findings suggest that it may be important to distinguish between subgroups of those with different levels and types of ETII arousal/expression.

Strengths & Limitations: Strengths of this study include a large, non-clinical sample of men and women in the investigation of ETII and the inclusion of measures of psychological correlates. However, the use of an internet sample with self-report measures may be unrepresentative, though the internet has the advantage of being able to recruit from stigmatized or unusual groups. The cross-sectional nature limits our conclusions, as no causal inferences can be made.

Conclusion: The results support the concept of ETII as a paraphilic dimension in non-clinical samples and the possible role of gender-related psychological factors.

*Keywords*: erotic-target identity inversion, paraphilia, sexual orientation, masochism, gender
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Paraphilias are atypical sexual interests defined as ‘any intense and persistent sexual interest other than sexual interest in genital stimulation or preparatory fondling with phenotypically normal, physically mature, consenting human partners’\textsuperscript{28}(DSM-5, p. 685). Understanding paraphilias and their components are important for clinical and social reasons. While such sexual interests may not be pathological on their own, paraphilias are diagnosed as paraphilic disorders if the interest causes significant individual distress (e.g., guilt, depression, low self-esteem), psychological dependence interrupting everyday life, or harm to a non-consenting party. People with paraphilic interests are likely to experience social stigma, guilt, and shame about their sexual desires.\textsuperscript{29} They may be more likely to experience less fulfilment with their sex lives and relationships, or suffer sexual dysfunctions given their atypical attraction patterns. Further scientific research on people with paraphilic interests could improve their lives through tailored psychological interventions, and better clinician and public awareness of atypical sexual lifestyles.

Paraphilias have been classified in two ways: preferences for unusual sexual activities or behaviors (e.g., sadism) or unusual erotic targets (e.g., children).\textsuperscript{1} Another component which has received little scientific attention is erotic target location. Often the target of one’s sexual desire is located externally towards other individuals (e.g., attraction to men or women), but some people may be aroused by the idea or fantasy of being one of those individuals, known as an erotic target identity inversion (ETII).\textsuperscript{30,31,32} An ETII can become so intense that the individual only experiences arousal by the thought of being the erotic target.\textsuperscript{33,34} This suggests that the level of sexual arousal towards erotic targets may exist on a continuum (e.g., some people having greater, lesser, or equal arousal to external and internal targets). In addition to sexual arousal, ETIIs may include wanting behavioral or physical
changes to become the object of desire. However, simple sexual role play or arousal towards superficial aspects of the target do not qualify as an ETII.

Autogynephilia is a well-researched ETII, although with some controversy. Autogynephilia occurs when natal males are aroused by the thought of themselves being a woman and may change their bodies and behavior to reflect that of a woman. Heterosexual men who are aroused by the thought of themselves as a woman may wish for a more female-like body through permanent physical transformations. This desire may manifest through feelings of discomfort with sex assigned at birth in some people. A possible natal female equivalent of autogynephilia may be autoandrophilia.

Other ETIIs include autopedophilia, or arousal to the thought of being a child among pedophiles, autoanthropomorphoaphozooophilia, or arousal by the thought of being an anthropomorphic animal, acrotomophilia (arousal to idea of impersonating or becoming an amputee), and autonepiophilia (or “adult baby/diaper lovers” characterized by arousal to thoughts of being a child or infant, differentiated from autopedophilia in that there is no sexual attraction to children). Some people who may have an ETII feel that their erotic desires have little do to with sexual motivation but are related to their identity. This may be due to concerns about stigmatization: identity labels are perceived as more socially acceptable than sexual desires. Aside from autogynephilia, ETIIs have received little empirical attention.

ETIIs, like other paraphilias, are hypothesized to occur more in men than women and are rarely described in women. Money described one case of a woman who experienced acrotomophilia, while First reported that four out of 52 participants with acrotomophilia were women. Some female-to-male transgender individuals describe their experiences as autoandrophilic, but this has not been found elsewhere. However, population studies of sex differences in paraphilias suggest non-negligible female prevalence.
rates (e.g., transvestic fetishism). This raises the possibility that ETIs may exist among women more than previously thought.

Several developmental and psychological factors that may be important in the development of ETIs. Nonheterosexuality has been found to be higher in autoanthropomorphozoophilia (bisexual identities and greater same-sex attraction) and autogynephilia, where persons are not exclusively sexually attracted to women, but who may be sexually attracted to women and men. Greater nonheterosexuality in autogynephilia may reflect sexual interest in the idea of having sex with a man as a woman. Whether elevated rates of nonheterosexuality are found in paraphilias in general is unclear.

However, any positive associations may point to common correlates (e.g., genetic or psychosocial) or indicate greater sexual openness. The male bias in ETIs suggest a possible role for male gender roles (such as dominance). One study reported that masculinity scores were positively associated with paraphilic arousal in women. Gender nonconforming behavior in childhood and adulthood (e.g., a boy experimenting with makeup and cosmetics or female-typical occupational preferences in adult males) is also strongly related to nonheterosexuality. Thus, the somewhat elevated rates of nonheterosexuality among some ETIs may suggest a role for gender nonconformity. Again, common causal factors may explain these associations.

There appear to be more gender identity problems among ETIs, including autogynephilia and apotemnophilia. The relative importance of gender identity disturbances and sexual interest as drivers of ETIs is an ongoing controversy. Sexual interests may be the primary factor in the development of ETIs or may develop secondarily due to gender identity disturbances. Growing evidence suggests a strong association between autism spectrum traits (ASD) and gender dysphoria in children and adults. One study reported an association between ASD traits and nonhomosexual adults with gender...
dysphoria who may be autogynephilic. No studies have systematically tested the association between the above factors and ETIIs to our knowledge. It is also unclear whether any associations with gender nonconformity, gender identity discomfort, sexual orientation, or autism spectrum traits are ETII-specific. Further research into these factors may help to narrow hypotheses about putative developmental pathways (biological or environmental) involved in ETIIs and paraphilias in general.

One alternative explanation for ETIIs is that they are motivated by masochism and humiliation rather than ETII specific sexual arousal or attractions. Sadomasochism is common among other paraphilias, particularly fetishism and transvestism. Qualitative reports from autoanthropomorphozoophilics emphasise masochistic and humiliation themes, and sadomasochism appears common in autogynephilia. While the causal directions are not clear, the case studies reporting themes of force, pain, and subjugation suggest that some ETII-like fantasies might in fact be motivated by masochism. Freund and Blanchard suggest that sexual fantasies motivated by masochism may emphasize the physical and behavioral differences between an individual and their preferred erotic target while sexual fantasies motivated by an ETII would comprise physical and behavioral similarities between an individual and their preferred erotic target. However, no studies have robustly tested the association between masochism, humiliation and ETII-based sexual motivation.

Clinically, it may be important to distinguish between ETIIs in the same way that is important to distinguish non-normative sexual interests from paraphilic disorders. Clarifying the phenomenology of ETIIs and their psychological correlates may help clinicians improve diagnosis and management. For example, persons who’s ETIIs are linked to gender identity discomfort, or those with co-occurring autism, may require different clinical approaches. If ETIIs co-occur in the same individual, as do other paraphilias, this may enhance potential
transdiagnostic conceptualizations (e.g., point to a set of common sexual arousal processes). Further research may help to separate ETIIIs as unusual patterns of sexual interests from illegal paraphilic disorders (e.g., autonepiophilia from pedophilia) and so reduce social stigma associated with internal sexual desires.

In this study, we aimed to quantify the concept of ETIIIs in a non-clinical internet sample of men and women. We focused on patterns of reported sexual arousal and expression of autoanthropomorphozoophilia (furries or those who engage in pet play), autonepiophilia (or adult baby/diaper lovers), autogynephilia, and autoandrophilia. We focused on these potential ETII groups given the existing, albeit small, literature or case study indications to their existence. We tested for the correspondence between sexual attraction towards external and internal targets, the co-occurrence of different ETIIIs, and their associations with theoretically important developmental, gender-related, and psychological factors.

Method

Participants

Participants were 4,280 adults that resided in the United States, Canada, The United Kingdom (UK), or the Republic of Ireland, who were part of a larger investigation on the psychological correlates of atypical sexual interests. They were recruited through social media, advertisement posters, and Mechanical Turk. Of these participants, 1,288 indicated some level of sexual interest in the ETIIIs being studied and their results were included in the present analysis. Approximately 63% resided in the US, 25% in the UK or Ireland, and 12% from Canada. Regarding sex, responses indicated 549 females, 736 males, and 3 responding “another”. Responses to self-identified gender were similar (516 identifying as a woman, 715 as a man, and 57 as another gender). Mean age was 31.02 years ($SD = 11.23$) and mean years in full-time education was 16.46 (comparable to a bachelor’s degree, $SD = 3.36$). For sexual orientation, 50.8% ($n = 654$) identified as heterosexual, 33.6% ($n = 433$) as bisexual, 5.1% ($n = 308$) as other, and 10.5% ($n = 142$) as non-binary.
= 66) as gay/lesbian, 1.5% \((n = 19)\) as asexual, and 9.0% \((n = 116)\) as other. Most participants were white (83.2%), followed by mixed (6.2%), Hispanic (3.0%), East or South East Asian (2.9%), Black (1.9%), South Asian (1.0%), and others (1.8%). Most participants (66.6%) reported no religion, and those who did were primarily Christian (23.7%). Around 3.0% \((n = 37)\) reported ever having been incarcerated. Of these individuals, 29 (23.6% of the incarcerated sample, 0.7% of the larger sample) said they had been convicted of a crime in which they used or threatened force/violence. We did not ask about sexual crimes.

**Main Measures**

**Sexual arousal and expression of ETIs.** For each ETI we assessed self-reported sexual arousal and expression of the ETI using items adapted from Hsu and Bailey\(^{13}\). These questions were modified based on the ETI being explored. Participants were asked to indicate how sexually aroused they became when thinking about or imagining themselves as erotic target exemplars of the specific ETI category. Responses were on a 7-point scale and ranged from -3 (very repulsive) to 3 (very arousing). Participants were routed to the ETI questions from the larger survey by scoring at least 1 (mildly arousing, on the same arousal scale) on internal erotic target items. For example, for autogynephilia and autoandrophilia, natal males (or natal females, respectively) were redirected to ETI questions if they indicated at least mild sexual arousal to the thought of dressing or acting like a woman (if male) or a man (if female). Similarly, indicating at least mild sexual arousal to acting/dressing like an animal or to wearing a full ‘fur suit’ routed participants to ETI questions about autoanthropomorphozoophilia. For potential autonepiophilia, the erotic target questions asked about arousal to behaving or mimicking a child, being treated like a child, having a partner that takes on a parental role, or wearing diapers/nappies. Indicating at least mild arousal to any of these items routed participants to autonepiophilia questions.
If terms of ETII expression, participants rated the frequency of engagement in dressing or behaving like their preferred target (0 [never] to 4 [once a week or more on average]), strength of feeling that they would be better off as the target (0 [never] to 4 [always]), and the frequency of consideration of making physical changes to look or function more like the target (0 [never] to 4 [once a week or more on average]). All four ETII group questions reached acceptable reliability: autogynephilia $\alpha = .722$, autoandrophilia $\alpha = .652$, autonepiophilia $\alpha = .592$, autoanthropomorphoziophilia $\alpha = .631$. The latter two were expected to have lower reliability due to the relative impossibility of being able to make substantial changes to look or function more like the preferred erotic target.

We did not ask participants about their identity labels (e.g., whether they explicitly identified as furries or adult-babies) in order to focus on a simpler, arousal-based endorsement of the putative ETII. Social identity labels are often confounded by social and cultural pressures and so are less reliable indicators of sexually motivated traits.

For the purposes of this study, a participant was considered to be part of an ETII group if they a) had at least some arousal to imagining themselves taking on characteristics of an erotic target (scoring a 1 or more on the routing items; this represented internal target arousal) and b) demonstrated arousal to the external erotic target. Requiring both internal and external target arousal in order to be considered as having an ETII is in keeping with prior literature. Thus, individuals in each of the putative ETII groups will be referred to as having ‘any level of ETII endorsement’. For example, for a natal male to have any level of autogynephilic endorsement, they had to indicate arousal to the thought or dressing or acting as a woman and arousal to the thought of having sex with a woman. We also calculated the number of people having a ‘consistent ETII’, meaning that, in addition to the requirements of having any ETII endorsement, they endorsed all four ETII-specific questions (arousal to being the target and at least the lowest positive response score to the three expression items).
Measures of Developmental and Psychological Correlates

**Sexual orientation (attractions and identity).** Participants responded to a 9-point Kinsey-like scale, ranging from 0 (Always male), 1 (Predominantly male, only occasionally female), 2 (Predominantly male, but more than occasionally female), 3, (Equally male and female), 4 (Predominantly female, but more than occasionally male), 5 (Predominantly female, only occasionally male), 6 (Always female), 7 (No sexual attraction), and 8 (Prefer not to say). Those who chose “prefer not to say” (n = 2) or “no sexual attraction” (n = 14) were excluded from analyses including sexual orientation. This is because we had no strong a priori hypotheses about ETIIs in those with ambiguous or no sexual attractions or non-responders. Participants also indicated their sexual orientation identity labels as “heterosexual”, “bisexual”, “homosexual”, “asexual”, and “other.”

**Recalled childhood gender nonconformity (CGN).** Participants indicated their levels of CGN from as early as they can remember to 12 years old on 10 items rated on 5-point scales. An example item is ‘As a child, I enjoyed playing rough physical sports such as football (soccer), hockey, or rugby’. Higher average scores indicate more feminine responses. This scale demonstrated good reliability, $\alpha = .905$.

**Gender identity discomfort.** Participants were asked how comfortable they were with the gender they were assigned at birth and responses ranged from 1 (very uncomfortable) to 7 (very comfortable). Lower scores indicated greater discomfort. The purpose of this item was to determine the relationship between gender-identity discomfort and the level of ETII endorsement.

**Autism spectrum traits.** This was measured using the short, 10-item Autism Spectrum Quotient 10 (AQ-10). Higher scores indicated more autism-spectrum traits. The ASQ-10 had acceptable reliability in this sample, $\alpha = .647$. 
**Masochism and humiliation.** We used two subscales determined through exploratory factor analysis and bi-factor structural equation modelling of a sexual fantasies and behavior questionnaire (adapted from Seto, Lalumière, Harris, & Chivers\(^3^8\)) for a larger study\(^3^5\) on atypical sexual interests. Participants were asked to indicate how sexually aroused they became when thinking about or imagining specific scenarios. Responses on a 7-point scale ranged from -3 (very repulsive) to 3 (very arousing). The masochism subscale included 11 items related to experiencing sexual arousal to pain (e.g. “you are being heavily beaten, flogged, or whipped”) and submission (e.g. “you are someone’s slave”). The humiliation subscale included 4 items for giving and receiving humiliation and degradation (e.g. “you are having humiliating statements written on your body”). Both humiliation (\(\alpha = .916\)) and masochism/submission (\(\alpha = .935\)) subscales demonstrated good reliability. Higher average scores reflected more masochism and humiliation-related sexual interests.

**Social desirability.** This was measured at the end of the larger questionnaire mentioned earlier on the psychological correlates of atypical sexual interests, and used two items: 1) “To what extent do you feel you were able to be completely open in answering this questionnaire?” and 2) “How accurately do you believe your answers to the above questions reflect your true feelings and behavior?”\(^3^9\) Responses were on a 4-point scale from 1 (completely) to 4 (not at all). The items had acceptable reliability (\(\alpha = .635\)).

**Procedure**

The survey was administered in Qualtrics and participants gave informed consent. Ethical approval was obtained from the King’s College London Psychiatry, Nursing & Midwifery research ethics subcommittee (reference: HR-17/18-5550). The survey first asked about demographic variables, followed by sexual orientation, gender identity discomfort, the sexual interests questionnaire (including ETII questions), autism traits, CGN, and social
desirability responding items. For all analyses, results were considered statistically significant if $\alpha < .05$.

**Results**

**Autogynephilia**

A total of 522 natal males indicated arousal to the thought or fantasy of acting and/or dressing like a woman and to the thought or fantasy of having sex with a woman. Five-hundred two identified their gender as a man (96.7%), 3 identified as a woman (0.6%), and 14 (2.7%) identified as another gender. Of the 522, 95.2% ($n = 497$) found the thought of actually being a woman at least mildly arousing (scoring 1 on the arousal measure), while 40.5% ($n = 211$) found this very arousing (scoring 3 on arousal).

In terms of expression (Table 1), autogynephilic response was significantly positively correlated with frequency of dressing up or behaving as a woman ($r = .32$, $p < .001$), feeling as if they would be better off living as a woman ($r = .50$, $p < .001$) and considering making permanent body changes to look and/or function more like a woman ($r = .25$, $p < .001$). Excluding those responding “never”, 68.8% ($n = 359$) had dressed or acted as a woman, 34.7% ($n = 181$) said they would be better off living as a woman (also excluding those responding “rarely” to this item), and 30.1% ($n = 157$) had desired to make physical changes to look or function more like a woman. The average arousal to the thought of being a woman was 6.00 ($SD = 1.03$) and the average sum score for all four autogynephilia items was 12.09 ($SD = 3.20$).

Regarding correspondence between reported arousal to external and internal erotic targets, we looked at Kinsey scores. Of the initial 522 males, 501 (95.9%) reported having at least equal attraction to men and women (a Kinsey 3 or more). Specifically, 4.8% ($n = 25$) said their attraction was equally to men and women, 56.1% ($n = 293$) reported their attraction to be predominantly to women, and 35.1% ($n = 183$) reported exclusive attraction to women.
Most of these males (62.8%) \((n = 328)\) identified as heterosexual, 30.3% \((n = 158)\) as bisexual, 1.5% \((n = 8)\) as homosexual, 0.2% \((n = 1)\) as asexual, and 5.2% \((n = 27)\) as other.

Multiple regression models were computed to regress sexual orientation (attractions), CGN, gender identity discomfort, and AQ-10 scores on autogynephilia sum scores (Table 2). The model was significant, accounting for 14.5% of the variance (90% CI for \(R^2\) [.091, .193]), \(R = .38, F(4, 429) = 18.23, p < .001\). Neither sexual orientation nor AQ-10 scores significantly predicted Autogynephilia, but gender identity discomfort and CGN did. This indicated that more discomfort with gender assigned at birth and more feminine childhood behaviors were related to Autogynephilia.

In addition to the requirements of being part of the putative autogynephilic group, those with consistent autogynephilia had to indicate arousal to the thought of being a woman, dressing or behaving as a woman one or more times in the past, at least sometimes feeling as if it would be better to live as a woman, and considering making permanent changes to look and function more like a woman at least once. Under these criteria (positive endorsement of all ETII items), 33 natal males had a consistent autogynephilic ETII, or 6.3% of the original autogynephilia sample. Of these, 23 identified as a man (69.7%) and 10 identified as another gender (30.3%). The average sum autogynephilia score for this group was 17.57 \((SD = 2.11)\).

**Autoandrophilia**

A total of 328 natal females reported at least some sexual arousal to acting or dressing like a man. One individual (0.3%) identified as a man, 95.1% \((n = 311)\) identified as a woman, and 4.6% \((n = 15)\) identified as another gender. The majority (70.3%) \((n = 230)\) reported at least mild levels of sexual arousal (scoring at least 1 on arousal response) to the thought or fantasy of being a man, while 14.1% \((n = 46)\) found this to very arousing (scoring 3).
In terms of expression, autoandrophilic response was significantly related to the frequency of dressing up or behaving as a man \((r = .21, p < .001)\), feeling as if life would be better off as a man \((r = .35, p < .001)\), and the consideration of making permanent changes to look and function more like a man \((r = .26, p < .001; \text{see Table 1})\). Excluding those responding “never”, 55.8% \((n = 182)\) had dressed or acted as a man, 41.4% \((n = 136)\) said they would be better off living as a man (also excluding those responding “rarely” to this item), and 25.6% \((n = 84)\) desired to make physical changes to look or function more like a man. Average arousal to the thought of being a man was 5.04 \((SD = 1.36)\) and the average autoandrophilia sum score was 10.76 \((SD = 3.17)\).

Regarding correspondence between external and internal target responses, about half (55.5%, \(n = 182\)) reported predominant attraction to men (either occasionally or more than occasional attraction to women), 17.7% \((n = 58)\) reported equal attraction to men and women, and 10.4% \((n = 34)\) reported exclusive attraction to men. With respect to sexual orientation identities, 34.1% \((n = 112)\) of natal females identified as heterosexual, 47.6% \((n = 156)\) as bisexual, 3.4% as homosexual \((n = 11)\), 1.5% as asexual \((n = 5)\), and 13.4% \((n = 44)\) as other.

Multiple regressions were computed between sexual orientation (attractions), CGN, gender identity discomfort, AQ-10 scores, and autoandrophilia sum scores. The model was significant, explaining 29.4% of the variance \((90\% \text{ CI for } R^2 = [.211, .362]), R = .54, F(4, 276) = 28.72, p < .001\). Significant predictors were sexual orientation, AQ-10, gender identity discomfort, and CGN (Table 2). Nonheterosexual attractions, more gender identity discomfort, higher autism trait scores, and more masculine childhood behaviors were related to Autoandrophilia.

Twenty-three natal females (7.0% of original 328) had a consistent autoandrophilic ETII (all four ETII questions having a positive response). Only one (4.1%) identified as a
man, 18 identified as a woman (78.3%), and four (17.4%) identified as another gender. The average consistent autoandrophilia arousal score was 15.56 (SD = 2.46).

**Comparing Autogynephilia and Autoandrophilia**

The percentage of natal males (24.6%) from the original sample (n = 2124) who endorsed any level (scores of 1 or above on the external and internal target arousal items) of autogynephilia was significantly greater than the percentage of natal females (15.3%, females in original sample n = 2146) who endorsed any level autoandrophilia, \( \chi^2(1, N = 4,280) = 57.81, p < .001, OR = 1.81, 95\% CI [1.55, 2.11] \). Natal females had significantly lower autoandrophilia scores (M = 10.68, SD = 3.13) than natal males did autogynephilia scores (M = 12.06, SD = 3.20), \( F(1,848) = 62.03, p < .001, \eta^2_p = .068, 90\% CI [.043, .097] \). When comparing across gender identity label, those who identified as a man (24.9%) had higher rates of ETII endorsement than those identifying as women (18.1%). However, those who identified as any other gender had the highest rate of autogynephilia/autoandrophilia endorsement (30.1%), \( \chi^2(1, N = 4,272) = 33.92, p < .001, Cramer’s V = .111, 95\% CI \) with 5000 bootstrap samples [.083, .142].

**Autonepiophilia**

In order to be redirected to the ETII questions for autonepiophilia, participants had to state some level of arousal to at least one of the four following fantasies: behaving like or mimicking an infant or child; being treated like a child (e.g., using baby talk.); having a partner that acts in some way as a parent (e.g. calling them mommy or daddy); or wearing diapers. To be considered part of the putative autonepiophilia group, participants also had to have a positive response to at least one of four external target arousal questions: engaging in sexual activities with a consenting adult acting like an infant or child; treating someone as a child; acting as a parental figure or caregiver for a sexual partner; or looking at an adult in diapers. A total of 489 adults indicated arousal to one or more of these fantasies from each
group, with 44.1% \( (n = 215) \) being natal females, and 55.9% \( (n = 273) \) being natal males (one participant did not provide natal sex). Similarly, 42.4% \( (n = 206) \) identified as a woman, 54.7% \( (n = 266) \) as a man, and 2.9% \( (n = 14) \) as another gender (three did not provide this information). The majority were either heterosexual \( (49.5\%, n = 242) \) or bisexual \( (31.5\%, n = 154) \), while 7.2% \( (n = 35) \) reported as being homosexual, 1.6% \( (n = 8) \) as asexual, and 10.2% \( (n = 50) \) as other.

Two-hundred thirty-three \( (47.6\%) \) indicated arousal to the thought or fantasy of actually being a child; 118 males and 114 females (1 unspecified). Fifty-one individuals \( (10.4\%) \) found this to be very arousing (scoring 3 on the arousal response). The average arousal response to this item was 3.76 \( (SD = 1.99) \). Autonepiophilia scores were significantly positively related to the frequency of engaging in child-like behaviors \( (r = .43, p < .001) \), feeling as if life would be better off living as an infant or child/infant \( (r = .31, p < .001) \), and the frequency of considering making permanent changes in order to look or function more like a child/infant \( (r = .14, p < .001) \) (Table 1). Approximately half \( (54.1\%; n = 266) \) had dressed or acted as a child, 25.3% \( (n = 124) \) said they would be better off living as a child/infant (also excluding those responding “rarely”), and 6.4% \( (n = 32) \) desired to make physical changes to look or function more like a child/infant. The average sum score of autonepiophilia was 9.16 \( (SD = 3.66) \).

Males \( (M = 8.53, SD = 3.53) \) had significantly lower scores than females \( (M = 9.90, SD = 3.64) \), \( F(1, 486) = 17.42, p < .001, \eta^2 = .035, 90\% \text{ CI} [.013, .065] \). However, females were significantly less likely than males to endorse any level of autonepiophilia, \( \chi^2(1, N = 4,215) = 8.79, p = .003, OR = 0.75, 95\% \text{ CI} [0.62, 0.91] \). With respect to gender identity, men \( (M = 8.47, SD = 3.40) \) had significantly lower autonepiophilia scores than women \( (M = 9.86, SD = 3.78) \) and those that identified as another gender \( (M = 11.71, SD = 3.77) \), \( F(2, 483) = \)
4.78, \( p < .001, \eta_p^2 = .049, 90\% CI [.013, .065] \). Those who identified as a woman or another gender did not differ significantly.

Regression analysis on the role of developmental factors revealed a significant overall model, explaining 7.80% of the variance (90% CI for \( R^2 [.034, .118] \)), \( R = .28, F(4, 384) = 8.10, p < .001 \). Sexual orientation, CGN, and the AQ-10 significantly predicted autonepiophilia scores, but gender identity discomfort did not (Table 2). The lack of association with gender identity discomfort may be due to autonepiophilia not being tied directly to gender identity expression issues in the same way that autogynephilia and autoandrophilia are. Greater male attractions, more stereotypically female behaviors in childhood, and higher autism trait scores, were related to autonepiophilia.

Only fifteen participants (3.1% of the initial 488) fulfilled the criteria for a consistent ETII here; eight males, six females, and one other. Five of these individuals identified as a man, eight as a woman, and two as another gender. The average autonepiophilia arousal score for this group was 13.7 (\( SD = 2.79 \)).

**Autoanthropomorphozoophilia**

As with autonepiophilia, there were several statements that redirected participants to the four autoanthropomorphozoophilia ETII questions. These two internal target items asked about arousal to being treated or acting like an animal (engaging in ‘pet play’) and arousal to wearing any sort of fur suit. To be considered for the putative autoanthropomorphozoophilia group, participants needed to also indicate arousal to the external target item: watching others engage in animal like behaviors (e.g., dressing like animals). This broadened the definition of Hsu and Bailey, who focused on those that identified as “furries”, to include those who engaged in non-anthropomorphized animal-like behaviors for sexual arousal. Thus, our ETII questions focused on arousal to becoming an animal more generally.
Three-hundred twenty-nine participants indicated some level of arousal to either of the two internal target questions and the one external target question, with 43.4% ($n = 142$) being natal females and 56.6% ($n = 185$) being natal males (two did not specify sex). Thirty-eight percent ($n = 125$) identified as a woman, 55.3% ($n = 182$) as a man, and 6.7% ($n = 22$) as another gender. Forty-three percent ($n = 142$) were heterosexual, 35.3% ($n = 116$) were bisexual, 7.6% ($n = 25$) were homosexual, 3.3% ($n = 11$) were asexual, and 10.6% ($n = 35$) other.

Over half (68.6%, $n = 286$) reported arousal to the thought or fantasy of being a real animal; 101 females and 185 males. Forty-seven (14.2%) reported this to be very arousing. The mean arousal score for this item was 4.79 ($SD = 1.43$). Autoanthropomorphozoophilia was significantly correlated with the frequency of dressing or behaving as an animal ($r = .37$, $p < .001$), having feelings of life being better if they were an animal ($r = .30$, $p < .001$), and the frequency of considering making permanent life or body modifications in order to look or function more like an animal ($r = .19$, $p < .001$; Table 1). In regards to expression, 45.2% ($n = 148$) had dressed or acted as an animal, 24.7% ($n = 81$) said they would be better off living as an animal (also excluding those responding “rarely”), and 11.6% ($n = 38$) desired to make physical changes to look or function more like an animal. The mean autoanthropomorphozoophilia sum score was 9.94 ($SD = 3.17$).

Natal females ($M = 10.31, SD = 2.30$) had significantly higher autoanthropomorphozoophilia scores than natal males ($M = 9.55, SD = 3.29$), $F(1, 325) = 4.98, p = .026, \eta^2 = .015, 90\% \text{ CI } [.001, .044]$. However, natal males were more likely to endorse any level of autoanthropomorphozoophilia than natal females, $\chi^2(1, N = 4,270) = 6.64, p = .011, \ OR = 1.35, 95\% \text{ CI } [1.07, 1.69]$. These scores also differed significantly by gender identity label, $F(2, 326) = 5.96, p = .003, \eta_p^2 = .035, 90\% \text{ CI } [.007, .070]$. Those identifying as another gender ($M = 11.64, SD = 3.59$) had significantly higher scores than...
men ($M = 9.49, SD = 3.15$), but not women ($M = 10.30, SD = 2.96$). Women’s scores did not differ significantly from men’s.

In terms of developmental factors, the regression model was significant and accounted for 10.2% of the variance (90% CI for $R^2 [.041, .155]$), $R = .32, F(4, 259) = 7.33, p < .001$. Sexual orientation and gender discomfort were significant predictors, but not CGN or AQ-10 scores (Table 2). Greater male attraction and more discomfort with gender assigned at birth were related to higher levels of autoanthropomorphozoophilia endorsement.

Only 19 participants (5 female, 12 male, 2 unspecified; 5.8% of the 329), met the criteria for a consistent autoanthropomorphozoophilic ETII. The mean arousal score for this group was 17.05 ($SD = 2.32$).

**Associations with Masochism and Humiliation**

As masochism and humiliation are considered unique, alternative explanations for ETIIIs, we regressed these on to the sum scores for each of the ETIIIs separately in multiple regression models (Table 3). The simple correlation between masochism and humiliation scores was $r = .73, p < .001$, but no collinearity was detected in any of the regression models. For autogynephilia, the model was significant, $R = .19, F(2, 497) = 9.14, p < .001 , R^2 = .040, 90\% \text{ CI } [.012, .064]$. Humiliation significantly predicted autogynephilic interests, but masochism did not. For autoandrophilia the regression model was significant, with only humiliation significantly predicting autoandrophilic interests, $R = .17, F(2, 316) = 4.71, p = .010 , R^2 = .029, 90\% \text{ CI } [.004, .063]$. For autonepiophilia, humiliation was a significant predictor, but masochism was not, $R = .30, F(2, 464) = 22.93, p < .001 , R^2 = .090, 90\% \text{ CI } [.051, .133]$. The model for autoanthropomorphozoophilia was not significant, $R = .07, F(2, 311) = .66, p = .517 , R^2 = .004, 90\% \text{ CI } [.000, .019]$.

**Co-occurrence of ETIIIs**
Because paraphilias tend to co-occur, odds ratios were used to determine the extent to which endorsement of one ETII was associated with endorsement of another. In context of the larger sample, a total of 959 (433 females, 523 males, 3 not-specified) had only one ETII group endorsement, while 247 endorsed two ETIIs (93 females, 154 males) and 65 endorsed three ETIIs (21 female, 44 males). Overall, males were almost twice as likely to endorse more than one ETII group than females, \( OR = 1.85, 95\% \text{ CI } [1.46, 2.35], p < .001, n = 4205 \). Males who endorsed any level of autogynephilia were approximately 3.1 times more likely than those who did not endorse autogynephilia to endorse any level of autonepiophilia (\( OR = 3.12, 95\% \text{ CI } [2.39, 4.05], p < .001, n = 2092 \)) and 3.2 times as likely to endorse any level of autoanthropomorphozoophilic (\( OR = 3.22, 95\% \text{ CI } [2.37, 4.38], p < .001, n = 2114 \)). Males who exhibited autonepiophilic arousal were six times as likely to also display autonepiophilic arousal than men without autonepiophilic arousal, \( OR = 6.02, 95\% \text{ CI } [4.32, 8.38], p < .001, n = 2084 \). Females with autoandrophilic responses were 2.5 times more likely than females without autoandrophilic interests to also have autonepiophilic arousal \( OR = 2.52, 95\% \text{ CI } [1.83, 3.48], p < .001, n = 2123 \). Autoandrophilic females were also 2.7 times as likely to exhibit autoanthropomorphozoophilic arousal than non-autoandrophilic females, \( OR = 2.71, 95\% \text{ CI } [1.86, 3.94], p < .001, n = 2137 \). Females with autonepiophilic arousal were 6.3 times as likely to show autoanthropomorphozoophilic arousal than natal females without this arousal (\( OR = 6.28, 95\% \text{ CI } [4.30, 9.17], p < .001, n = 2121 \)) although confidence intervals were wide.

**Tests for Potential Sampling and Responder Biases**

ETII endorsement did not differ by country or age (\( ps > .05 \)). Those who endorsed ETII items had fewer years in education (\( M = 16.48, SD = 3.36 \)) than those who did not (\( M = 16.78, SD = 3.21 \)) but the effect size was small, \( F(1, 4168) = 7.32, p = .007, \eta^2 = .002, 90\% \text{ CI } [.000, .001] \). With respect to social desirability scores, participants responding ‘not at all’
to either question were removed \( (n = 5) \). There were no significant associations \( (ps < .05) \), except a weak one between autonepiophilia and the first social desirability item \( (\beta = .15, p = .008) \), but not the second \( (\beta = -.00, p = .946) \), \( R = .15, F(2, 385) = 4.27, p = .015, R^2 = .022, 90\% \ CI [.003, .049] \). ETII scores did not differ between social media vs. Mechanical Turk/non-social media recruitment sources \( (ps > .05) \). There were no associations with having committed a violent crime or had ever been incarcerated \( (ps > .05) \).

**Discussion**

This is the first large nonclinical and nonforensic study of ETII preferences in men and women. Mild self-reported patterns of ETII arousal were common among the four groups examined, characterizing about half of them. Reported gender identity discomfort, gender nonconformity and, more weakly, autism scores, were linked with ETII arousal in some groups but not others. This may due to a closer link between ETIIs like autogynephilia and autoandrophilia and measures of gender identity discomfort and gender nonconformity, as those ETII involves arousal to the thought of dressing or acting as a gender different to their gender assigned at birth. Those who reported “another” self-identified gender label had higher scores on autonepiophilia and autoanthropomorphozoophilia than those who did not.

In regard to etiological theories involving other paraphilic interests, masochism scores were unrelated to ETII arousal. Regarding reported arousal, there was some variation with stronger endorsement among autogynephilia, autoandrophilia, and autonepiophilia groups compared to autoanthropomorphozoophilia. About 40 percent of the autogynephilia group reported strong arousal (score of 3) to internal targets but less than 15 percent did so in the other groups. Rates of consistent ETII responses among the four groups were also low. Most of those with ETII arousal (74.5%, \( n = 959 \)) reported arousal to only one ETII, while 19.2% \( (n = 247) \) reported two, and 5.0% \( (n = 65) \) reported all three possible ETIIs (participants could not report both autogynephilia and autoandrophilia). Odds ratios indicated
that the co-occurrence of ETIIs was not statistically unusual (<15% occurrence rate), especially in natal males. Autonepiophilia and autoanthropomorphozoophilia had the highest co-occurrence rates in both females and males. Overall, these results suggest that a non-negligible number of people with sexual interest in particular external erotic targets also have erotic arousal to targets located in their own bodies. The strength of desire to the external target was significantly related to the overall ETII score for each group consistent with the concept of ETIIs.\textsuperscript{3,5,13,14,31} The relative consistency of this pattern across the groups suggest some specificity to the ETIIs (preferences for certain kinds of external targets correspond to the kinds of targets people wish or fantasize to be).

Behavioral correlates of the ETIIs (e.g., dressing like the target, thinking one was better of being the target, and wishing to physically become the target) were strongly correlated with ETII arousal across all groups. However, there was a decrease in the strength of responses to the behavioral expression items as the questions became more extreme. As expected, fewer people endorsed permanent physical changes to become animals and children given the difficulty of achieving this. This pattern of behavioral and arousal responses may support the notion that ETIIs exist on a continuum. More broadly, they support growing calls among scholars that the erotic target location may be another dimension of human sexual orientation, in addition to gender and age (or sexual maturity\textsuperscript{28}).

Prevalence rates in this sample suggest the presence of ETIIs in both males and females. In keeping with the literature, males were more likely to endorse any level of all four ETII groups.\textsuperscript{15,17} However, the number of females that reported ETII arousal were non-negligible, suggesting that researchers need not use all-male samples for the sake of statistical convenience.

In terms of developmental factors, gender identity discomfort was most strongly associated with autogynephilia, autoandrophilia, and autoanthropomorphozoophilia, followed
by childhood gender nonconformity (CGN) with autogynephilia and autoandrophilia (but weakly with autonepiophilia). Nonheterosexuality was associated with autoandrophilia, autoanthropomorphozoophilia, and autonepiophilia, but with small effect sizes, as were autism scores with autoandrophilia and autonepiophilia. Our results show empirical support for a link between gender identity discomfort and ETIs.\textsuperscript{15,31} However, it is not clear whether gender identity issues are primary or secondary factors in ETII development or simply co-occurring or even comorbid phenomena. For example, gender discomfort may be associated with atypical sexual interests more generally instead of ETIs specifically. Similarly, the association between CGN and some ETIs is not immediately clear. However, both patterns of associations (gender identity and CGN) could point to a common phenotype, such as sex atypical psychological gender, underpinning atypical or nonheterosexual sexual interests in general (Bailey et al., 2000).\textsuperscript{30} While our study did not look specifically at transgender identity within the four ETII groups, these results suggest that gender-nonconforming individuals or those experiencing some gender identity discomfort may be more likely to experience any type of ETII arousal, and that this relationship is not limited to gender-specific ETIs. The association between autism-like traits, autoandrophilia, and autonepiophilia is novel and could suggest some role for common causal factors (such as prenatal androgen levels) or gender- and age-related obsessionality, such as concern with male clothing or child-like appearances.\textsuperscript{33,40}

We found no empirical evidence to support the hypothesis that masochism per se may be an alternative sexual motivation for ETIs.\textsuperscript{14,31} Although there was evidence that ETII endorsement was linked to humiliation, effect sizes were small. The link between humiliation and ETIs may be due to the tendency for paraphilic interests to co-occur, perhaps representing a broadening of an individual’s sexual interests. Alternatively, it is possible that some may use ETIs as an outlet for sexual humiliation. For example, being treated as a child
or an animal may be perceived as humiliating or degrading via the creation of a power imbalance between sexual partners and this secondary psychological element may be sexual arousing. Or it is possible that humiliation promotes a form of stimulus contrast and novelty by promoting psychological distance (in sexual fantasy) between the imagined sexual target and the self.

This study added to the current body of sex research on ETIIs in three primary ways. First, it investigated the presence of ETIIs in an otherwise unselected internet sample, including sufficient numbers of females, who are poorly studied in this area. The demonstration of ETIIs among females shown here is novel and requires further study in terms of causal pathways for any sex differences herein. Second, this study quantified the co-occurrence of several ETIIs, supporting the notion that paraphilias tend to be comorbid. Our results offer tentative support for the hypothesis that paraphilic interests may represent a broadening of one’s psychological sexual repertoire in that we found substantial low-level (non-consistent) endorsement of ETII responses. Third, it quantitatively investigated the role of several potential important psychological correlates, including gender identity discomfort, masochism, and humiliation.

There are several important limitations to this study. The use of an internet sample may be unrepresentative and unsystematic. However, this is a problem in all studies of atypical sexual interests and rare paraphilias because there is no standardized way to recruit people with these minority preferences. Such people may be socially stigmatized, likely rare at the population level, and thus difficult to access through conventional means (e.g., via word-of-mouth or population sampling). Clinic-referred samples are limited because the presenting condition may often be psychological distress (e.g., guilt, depression, anxiety, low self-esteem), sexual dysfunction or gender identity problems rather than an ETII. People who are concerned about the legality of their sexual desires may not be forthcoming about
them. The internet has the unique advantage of being able to access rare and stigmatized
groups in psychological research, particular those whose feelings and desires are by
definition hidden.

It is also possible that our participants were unrepresentative of people with ETIs in
general and not all potential ETIs were explored (e.g., acrotomophilia). Instead of limiting
recruitment to those who self-identify with an ETII label, the goal of the current study was
survey those with self-reported ETII arousal patterns. There were no differences in ETII
arousal between recruitment sources. But this does not exclude the possibility that people
responding to a survey about atypical sexual interests differ in demographic, personality or
other factors compared to normative populations as a whole. Interestingly, ETII arousal was
not associated with self-reported criminality.

Our research relied on self-reports and we did not validate these with objective
measures (e.g., genital arousal). Our analysis of socially desirable responding suggests that
intentional deception or mischievous responses were unlikely. Participation was anonymous
and could not result in embarrassment, social stigma, or criminal sanctions. We also used
conceptual anchors for our arousal and behavioral expression items allowing for more precise
interpretation. The consistency of the associations between ETII arousal and behavioral
expression among the four groups was also quite high. However, within each ETII group we
were unable to determine specificity of arousal to kinds of internal targets (e.g., different
animals among autoanthropomorphozoophilia). It is also possible that the initial routing
questions for each ETII group did not capture the nuances of the specificity of erotic target
preference or were simply too broad in scope.

Due to the cross-sectional nature of this study, no causal claims about the
development of ETIs can be made. We may also have missed other important developmental
factors such other psychopathology or neurodevelopmental events. We also did not measure
psychological closeness to the relevant erotic targets which might be another alternative explanation for the ETIIIs. For example, comparing imagining being emotionally close to the target to sexual arousal to the thought of being the target. Nor did we measure other potential predictors such as guilt or shame. We also did not measure adult gender nonconformity, focusing instead of childhood gender nonconformity.

Future research should investigate the specificity of arousal patterns within each of these unique ETII categories. Moreover, further empirical work is needed to clarify the role of location of erotic arousal towards internal targets in otherwise normative sexual orientation. For example, do typical heterosexual men show greater than expected sexual arousal to thoughts of being women? This may help explain patterns such as heterosexual genital arousal in men who have gynandromorphophilic interests. Similarly, do gay men show greater than expected arousal to thoughts of being men? Comparing gay to heterosexual men would clarify the specificity of any internally directed sexual attraction because gay men are by definition attracted to targets that are similar to self (other males). Such research would enhance our understanding of whether arousal to internal targets part of the psychological structure of otherwise healthy sexual orientations.
References


# Tables and Figures

Table 1

*Inter-Item Correlations for Four ETII Questions by ETII Group [95% 5000 Bias-Corrected and Accelerated Bootstrap Interval]*

<table>
<thead>
<tr>
<th>ETII GROUP</th>
<th>ETII QUESTION NUMBER</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Autogynephilia (n = 543)</strong></td>
<td>Q1: You are a woman</td>
<td>1</td>
<td>.32***</td>
<td>.50***</td>
<td>.25***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[.15, .48]</td>
<td>[.40, .58]</td>
<td>[.02, .43]</td>
</tr>
<tr>
<td></td>
<td>Q2: Acting as a woman</td>
<td>-</td>
<td>1</td>
<td>.33***</td>
<td>.44***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[.20, .46]</td>
<td>[.31, .56]</td>
</tr>
<tr>
<td></td>
<td>Q3: Life would be better as a woman</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>.54***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[.41, .64]</td>
</tr>
<tr>
<td></td>
<td>Q4: Make changes to be a woman</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td><strong>Autoandrophilia</strong></td>
<td>Q1: You are a man</td>
<td>1</td>
<td>.21***</td>
<td>.35***</td>
<td>.26***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[.12, .31]</td>
<td>[.25, .43]</td>
<td>[.18, .34]</td>
</tr>
<tr>
<td></td>
<td>Q2: Acting as a man</td>
<td>-</td>
<td>1</td>
<td>.39***</td>
<td>.44***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[.29, .49]</td>
<td>[.34, .54]</td>
</tr>
<tr>
<td></td>
<td>Q3: Life would be better as a man</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>.46***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[.38, .54]</td>
</tr>
<tr>
<td></td>
<td>Q4: Make changes to be a man</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td><strong>Autonepiophilia</strong></td>
<td>Q1: You are an infant/child</td>
<td>1</td>
<td>.43***</td>
<td>.31***</td>
<td>.14***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[.35, .50]</td>
<td>[.24, .39]</td>
<td>[.07, .21]</td>
</tr>
<tr>
<td></td>
<td>Q2: Acting as an infant/child</td>
<td>-</td>
<td>1</td>
<td>.38***</td>
<td>.17***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[.30, .46]</td>
<td>[.09, .24]</td>
</tr>
<tr>
<td></td>
<td>Q3: Life would be better as an infant/child</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>.32***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[.21, .42]</td>
</tr>
<tr>
<td></td>
<td>Q4: Make changes to be an infant/child</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td><strong>Autoanthropomorphozoophilia</strong></td>
<td>Q1: You are an animal</td>
<td>1</td>
<td>.37***</td>
<td>.30***</td>
<td>.19***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[.27, .46]</td>
<td>[.18, .40]</td>
<td>[.10, .27]</td>
</tr>
<tr>
<td></td>
<td>Q2: Acting as an animal</td>
<td>-</td>
<td>1</td>
<td>.37***</td>
<td>.40***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[.26, .48]</td>
<td>[.28, .51]</td>
</tr>
<tr>
<td></td>
<td>Q3: Life would be better as an animal</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>.43***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[.31, .53]</td>
</tr>
<tr>
<td></td>
<td>Q4: Make changes to be an animal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
</tbody>
</table>

***p < .001
Table 2

*Standardized β Values for Multiple Regression Analyses Predicting ETII Group Scores*

<table>
<thead>
<tr>
<th>ETII Group</th>
<th>Sexual orientation (attractions)</th>
<th>AQ-10</th>
<th>CGN</th>
<th>Gender Identity Discomfort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autogynephilia</td>
<td>-0.08</td>
<td>0.04</td>
<td>0.28***</td>
<td>-0.14**</td>
</tr>
<tr>
<td>Autoandrophilia</td>
<td>0.11*</td>
<td>0.20***</td>
<td>-0.33***</td>
<td>-0.23***</td>
</tr>
<tr>
<td>Autonepiophilia</td>
<td>-0.13*</td>
<td>0.14**</td>
<td>0.07*</td>
<td>-0.05</td>
</tr>
<tr>
<td>Autoanthropomorphozoophilia</td>
<td>-0.19**</td>
<td>0.07</td>
<td>-0.01</td>
<td>-0.22***</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001
Table 3

*Standardized β Values for Multiple Regression Analyses with Masochism and Humiliation Predicting ETII Group Scores*

<table>
<thead>
<tr>
<th>ETII Group</th>
<th>Masochism</th>
<th>Humiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autogynephilia</td>
<td>-0.02</td>
<td>0.20**</td>
</tr>
<tr>
<td>Autoandrophilia</td>
<td>-0.17</td>
<td>0.24**</td>
</tr>
<tr>
<td>Autonepiophilia</td>
<td>0.01</td>
<td>0.29***</td>
</tr>
<tr>
<td>Autoanthropomorphozoophilia</td>
<td>0.06</td>
<td>-0.09</td>
</tr>
</tbody>
</table>

* *p < .05, **p < .01, ***p < .001*