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Heterogeneity in Transgender: A Cluster Analysis of a Thai Sample

Sam Winter, PhD

ABSTRACT. An analysis was performed of data from an Adjective Checklist (ACL) study of identity and gender-trait stereotype in Thai MtF transgenders (Winter and Udomsak, 2002a, 2002b). Contrary to previous analyses, the current analysis employed the participants (rather than the ACL traits) as the unit of analysis. For each participant a calculation was made of the extent to which traits endorsed for actual self were also those endorsed as stereotypically male (masculine) or stereotypically female (feminine) traits. In this way gender-in-self scores (indices of masculinity, femininity, and non-differentiation) in actual self-concept (MASC, FASC, and NASC respectively) were calculated. A similar matching procedure involving ideal self led to the calculation of indices for masculinity, femininity, and non-differentiation in ideal self-concept (MISC, FISC, and NISC respectively). A cluster analysis was then performed, using these six gender-in-self scores in order to identify any groups within our sample.

Participants clustered into three substantial groups, together accounting for 98% of the data. The largest (69.9% of the sample) endorsed stereotypically male and female as well as undifferentiated traits. It could therefore be described as an *androgynous* group. The next, accounting for 21.4% of the sample, endorsed overwhelmingly undifferentiated traits. It was accordingly labelled the *undifferentiated* group. The last, accounting for 6.6% of the sample, endorsed overwhelmingly female-stereotyped traits and, in view of the fact that they had constructed for themselves such a highly stereotypically female self-concept, was labelled the *feminine* group. All six gender-in-self scores played a part in distinguishing the groups from each other.

For all three groups discrepancies between actual and ideal self were found, suggesting personal growth goals that led away from female stereotype.

Traits endorsed for actual self were further examined for any sign of group differences in terms of scores for 14 underlying features, as well as loadings on four higher-order factors, as employed in the Winter and Udomsak (2002b) analysis. Traits endorsed for ideal self and for gender-trait stereotyping were examined in the same way and for the same purpose.

For actual self no significant group differences were found. In contrast, several differences were found for ideal self. Traits endorsed by the undifferentiated group stood out from the others by being higher on adult ego state, conscientiousness, and emotional stability, and lower on adapted child ego state. All this was reflected in stronger loadings on resourcefulness/dependability.

Numerous group differences were identified for gender-trait stereotyping. The

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feminine group (compared to the other two groups) considered stereotypically female traits to be (a) higher on strength, favourability, adult and free child ego states, extraversion, agreeableness, conscientiousness, emotional stability, openness, and psychological importance, and (b) lower on adapted child ego state. All this was reflected in a stereotypical view of the female as both more caring/harmonious (a stereotypically "female" factor), as well as more resourceful/dependable (usually a stereotypically "male" factor) than how she was viewed by the other groups. The undifferentiated group's view of the female was at the other extreme, providing a mirror image effect.

In conclusion, three groups of MtF transgenders were identified, differing from each other in terms of the degree of gender stereotypy evident in their actual and ideal self-concepts. The three groups also differed in terms of the underlying elements of the traits that they had endorsed for ideal self, as well as for gender-trait stereotypes.

KEYWORDS. Transgender, gender role trait, self concept, Thai male to female transgender

INTRODUCTION

Our Adjective Checklist (ACL) study of 204 Thai MtF transgenders (Winter and Udomsak, 2002a) found that, while participants' actual self-concepts were strongly female-stereotyped, their ideal self concepts and aspirations for change were such as to take them towards a less female-stereotyped self. Indeed, they commonly disowned stereotypically female (feminine) traits. We suggested that such findings reveal goals for personal growth that transcend, or even run counter to, gender-stereotype, instead focusing on other human qualities.

In a later re-analysis of the data (Winter and Udomsak, 2002b) we investigated further the elements underlying actual and ideal self. We drew upon studies by other researchers which provided, for each ACL trait, scores indicating underlying features. There were fourteen such "trait feature" scores. Three were concerned with affective connotations (of strength, activity, and favourability), five with ego states (controlling parent, nurturing parent, adult, free child, and adapted child), five with higher-order personality features (extraversion, agreeableness, conscientiousness, emotional stability, and openness), and a final one called psychological importance. From this broad range of scores for each ACL trait we were able to extract four factors underlying each trait. These were (I) resourceful/dependable, (II) intrusive/controlling, (III) risk-taking/stimulation-seeking, and (IV) caring/harmonious.

Multiple regression analyses were undertaken using these four factors as predictors for gender-trait stereotype, actual and ideal self-concept. Findings for gender-trait stereotype revealed that males were viewed by the MtFs as high on resourceful/dependable, intrusive/controlling, and risk-taking/stimulation-seeking. Females were seen as high on caring/harmonious.

Participants' own actual self-concepts were high on caring/harmonious (the female factor) and low on intrusive/controlling. Together these two factors appeared to underlie our participants' strongly feminine actual self-concepts. On the other hand, ideal self-concepts were predicted by a more gender-inconsistent mix of caring/harmonious (the "female" factor) and resourceful/dependable (a "male" factor).

Aspirations to acquire desired traits were towards greater resourcefulness/dependability and away from traits low on this factor. Paradoxically, in view of the place that care/harmony had in defining both femaleness and ideal self, many in the group aspired to move away from this element of self. Together, these aspirations seemed to underlie the apparent movement away from female stereotypy. We interpret these findings as evidence of personal growth goals that conform to participants' notions of maturity and personal efficacy.

In the previous analyses the ACL traits (specifically their endorsement rates) were the units of analysis. Heterogeneity among participants was ignored in the search for whole-sample effects. The present report examines the data in a rather different way, taking the par-

ticipants themselves as the units for analysis, and investigating any individual differences. Specifically, each participant was ascribed scores indicating the degree of masculinity and femininity evident in actual self and ideal self endorsements. A cluster analysis was then performed in an attempt to identify groups that might be discerned from these scores, and to investigate their distinguishing features further.

METHODOLOGY

A brief summary of participants, instrumentation, and procedure might be useful at this point. For further details see the earlier papers.

Participants

Participants were the sample of 204 MtFs reported in Winter and Udomsak (2002a, 2002b). They were aged 17 to 42 years (mean 23.0 years) and at the time of the study were all living full-time in a cross-gendered role. All reported having experienced early feelings of female identity. The vast majority had undergone some sort of medical treatment (pharmacological or surgical) to feminise their physical appearance. A few had undergone sex reassignment surgery. In every case their speech habitually exhibited the pronouns and particles employed by females in the Thai language. All described themselves as "kathoey" or its related terms (the Thai equivalents of "MtF transgender"). In view of all this, they were, for the purposes of this study, defined as MtF transgenders.

Participants identified themselves as having the following work: 120 cabaret performers, 41 bar workers, 36 university students, and seven others engaged in shop work, etc. In fact, these categories were all somewhat arbitrary, as some participants fell into two or more categories. As one might therefore expect, significant group differences in response patterns were relatively few in number and small in scale.

Instrumentation

The instrument was a shortened ACL consisting of 81 adjectives drawn from the original pool of 300 (see Table 1). Each checklist, printed in Thai, was given three times, with instructions (a) to check any adjective that de-

TABLE 1. List of ACL Traits, Arranged According to MtFs' Gender-Trait Stereotypes

Stereotypically Female (Feminine)				Stereotypically Male (Masculine)	
Strongly*	Moderately*	Mildly*	Neutral*	Mildly*	Moderately*
fearful	affected	curious	ambitious	active	adventurous
(none)					
fussy	affectionate	meek	assertive	cruel	aggressive
sensitive	anxious	nagging	boastful	energetic	autocratic
shy	appreciative	stern	changeable	flirtatious	coarse
soft-hearted	attractive	submissive	confident	hard-hearted	courageous
superstitious	charming	talkative	determined	high-strung	daring
sympathetic	complaining	timid	dominant	humorous	disorderly
weak	dependent	whiny	frivolous	independent	egotistical
feminine	dreamy		gentle	reckless	enterprising
	emotional		initiative	sophisticated	forceful
	excitable		inventive	stolid	lazy
	mild		poised	unemotional	loud
	prudish		rational		masculine
	sentimental		realistic		progressive
	sexy		self-confident		robust
	worrying		warm		rude
			wise		severe
					strong
					tough

* Strongly Feminine (M% less than or equal to 10)
Moderately Feminine (M% over 10 but less than or equal to 20)
Mildly Feminine (M% over 20 but less than or equal to 33)
Neutral (M% over 33 but less than 67)
Mildly Masculine (M% 67 or more but less than 80)
Moderately Masculine (M% 80 or more but less than 90)
Strongly Masculine (M% 90 or more)

scribed participants *as they would like to be*, (b) to check any adjective describing them *as they currently were*, and (c) to evaluate each adjective according to *whether they believed men displayed the trait more often than women, women more often than men, or both sexes equally*. Items and instructions had been translated by a qualified professional and back translated to check for adequacy. The 81 adjectives are displayed in Table 1, arranged in terms of the gender-trait stereotypes actually expressed by the transgender sample.

Procedure

Potential participants were approached at their places of work or study and invited to take part in the research. It was presented as an attempt to understand transgenders as people, and to communicate that understanding as widely as possible. Participants were told that there were three questionnaires (each of which would take about ten minutes to complete), that there were no right or wrong answers, and that participants should answer in a way that reflected their feelings. Two potential participants refused to take part, leaving 204 who actually did. Participants completed all three questionnaires at one sitting. Completed questionnaires were checked for thoroughness, and for any responses indicating the need for further instructions or questioning. Any questions participants asked were answered by the research assistant, a native Thai speaker.

For actual and ideal self-concept 204 and 201 questionnaires were usable respectively. For the gender-trait stereotype questionnaire the mean number of usable responses was 194.7 with a range from 189 to 199, depending on the item.

We now turn to an account of the re-analysis of data, conducted in order to search for signs of transgender groups within our sample, and using participants as the unit of analysis.

Analysis of Data

(a) Gender-in-Self Scores

For each participant a calculation was made of the extent to which traits endorsed for ideal self (in Questionnaire One) or actual self (in Questionnaire Two) were endorsed by that same participant as stereotypically male (masculine), stereotypically female (feminine), or undifferentiated (i.e., displayed equally by males and females), as evidenced by participants' own responses (in Questionnaire Three).

Six gender-in-self scores resulted. These were (a) masculinity in actual self (MASC), (b) masculinity in ideal self (MISC), (c) femininity in actual self (FASC), (d) femininity in ideal self (FISC), (e) non-differentiation in actual self (NASC), and (f) non-differentiation in ideal self (NISC). For each participant each score was calculated by totalling the number of traits endorsed as masculine, feminine, or undifferentiated (as appropriate) in Questionnaire Three that were also endorsed for actual or ideal self concept (as appropriate). That number was then divided by the total number of traits endorsed for actual or ideal self-concept (as appropriate). The figure was prorated if necessary, in order to take account of any missing items on Questionnaire Three. Together, the six gender-in-self scores indicated the degree to which, for each participant, actual and ideal self-concept was infused with qualities viewed by that participant herself as masculine, feminine, or undifferentiated. For either actual or ideal self concept, the three gender-in-self scores (MASC, NASC, and FASC, or MISC, NISC, and FISC, as appropriate) added up to 100%. Together they provided an indication of the extent of each person's genderedness.

Of the 204 participants, analysis was possible with 196, owing to missing data on one or other of the questionnaires.

(b) Cluster Analysis

A cluster analysis was conducted with the aim of identifying clearly discernible groups within the sample on the basis of gender-in-self scores. Hierarchical cluster analysis was chosen because of its ability to yield a range of cluster solutions. Proximities were determined by way of squared euclidean distance method, the most common method for deriving proximities (SPSS Inc., 1999). Clusters were formed by way of between-groups linkage, a method that utilises a relatively broad range of data (op.cit.), performs well over a wide range of data sets (Cunningham

and Ogilvie, 1972), is relatively robust in coping with outliers (Milligan, 1980), and avoids some of the problems displayed by other methods (Everitt, 1993).

Multiple criteria were employed in the search for an appropriate cluster solution. We hoped for a relatively small number of substantial groups (i.e., each containing ten or more people) that would together account for the vast majority of data (i.e., at least 95% of the sample) and each of which would be discernibly different from each other. This "discernible difference" criterion implied a preference for a small number of groups, since the general rule is that the more groups that are identified, the more similar to each other they may be. Agglomeration coefficients were examined to detect any sudden rises in value that might signal arrival at an appropriate cluster solution.

Groups revealed by the cluster analysis were then examined to identify how exactly they differed in terms of the gender-in-self scores.

Groups were further investigated in terms of how they differed on the fourteen features and four overarching factors underlying each of the ACL traits. The next two sections detail how this was done. For more detail on the features and factors see Winter and Udomsak (2002b).

(c) Average Feature Scores for Endorsed Traits (AFSETs)

For each participant, and for each questionnaire, *average feature scores for endorsed traits* were calculated by summing the trait feature scores for all the traits that were endorsed and dividing that sum by the number of items endorsed. For each of the three questionnaires completed by a participant, it was possible to calculate fourteen such AFSETs–one for each feature. To give an example, if, when reporting actual self-concept, participant X endorsed four traits, and these had "strength" scores of 500, 510, 490, and 430 respectively, then her AFSET for strength in actual self-concept would be 1930/4, or 482.5. In a similar way, other AFSETs for that participant would be calculated using the other trait feature scores (activity, favourability, controlling parent, etc.) available for any ACL trait that she had endorsed. At the end of this process each participant would possess fourteen AFSETs for actual self.

Corresponding calculations were made to obtain, for each participant, fourteen AFSETs for ideal self, and also for female stereotypy. In the first case, the trait feature scores were summed (and then averaged) for any items endorsed as elements of ideal self. In the latter case, it was trait feature scores for any traits endorsed as being primarily female.

(d) Average Factor Loadings for Endorsed Traits (AFLETs)

In a corresponding fashion *average factor loadings for endorsed traits* (AFLETs) were calculated for each participant (each participant yielding four AFLETs (one for each factor) for each of the three questionnaires).

The large number of analyses raised the risk of Type I error. The authors took steps to protect against that risk by adopting a significance level of 0.01%.

Initial data preparation was performed using Microsoft Excel. Cluster analysis and subsequent operations were performed by way of SPSS-PC Plus Version 10.1.

FINDINGS

Overall

For the overall sample actual self-concept was heavily infused with stereotypically female (feminine) or undifferentiated traits (see the right hand column of Table 2). Male- stereotyped (masculine) traits played little role in the construction of actual self. By contrast, ideal self-concept showed a marked shift away from femininity, and slightly increased infusion of masculine and undifferentiated traits. This finding simply echoes those from the earlier analyses (Winter and Udomsak, 2002a, 2002b), which showed that feminine traits were a fairly strong component of actual self, but a somewhat weaker aspect of ideal self.

More interestingly, the standard deviations shown in Table 2 reveal a marked degree of individual variation, indicating substantial indi-

vidual differences between participants. We now turn to our findings from an examination of these differences by way of cluster analysis.

Identification of Groups

Discernible groups were indeed revealed through the cluster analysis. A six cluster solution revealed three groups of substantial size (*the smallest containing 13 people*), together accounting for 192 of the 196 participants being studied (*97.9% of the sample*).

The solution seemed robust. Six other clustering methods (within group, nearest neighbour, furthest neighbour, centroid, median, and Ward's) were used to produce cluster solutions. In each case their six-cluster solutions correlated beyond the $p = 0.01$ level with that for the between-groups method we had employed.

The gender-in-self scores for the three groups identified by way of the between-groups method are depicted in Table 2 and Figure 1.

One way analysis of variance, rather than multiple discriminant analysis, was used to identify significant differences between groups since occasional high correlations between predictor variables would have led to multicollinearity problems. All groups were found to differ significantly on almost all six gender-in-self scores, with the exception of the two male gender-in-self scores (MASC and MISC) for which the differences between Groups B and C failed to reach significance (see Table 2).

Group A represented 69.9% of the sample. Within this group around 60% of traits endorsed (whether for actual or ideal self-concept) were gender-stereotyped (the majority being feminine and the remainder being masculine). The only difference between actual and ideal self was a slight shift in the direction of masculinity for the latter. This group was labelled "*androgynous*."

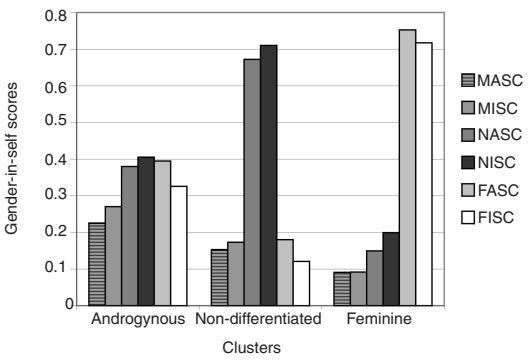
Group B, rather smaller than the first, accounted for 21.4% of the sample. Within this group around 70% of traits endorsed (whether for actual or ideal self-concept) were undifferentiated (neither masculine or feminine), with only around 30% being gender-stereotyped as either masculine or feminine. Once again the only difference between actual and ideal self was a slight shift in the direction of masculinity for the latter. This group was labelled "*undifferentiated*," apparently avoiding en-

TABLE 2. Group Gender-In-Self Scores

		Groups (a)			Sig. Diffs.	Overall
		Group A	Group B	Group C		
Percent of sample		69.9	21.4	6.6	(b)	
MASC	Mean	.2255	.1530	.0910	AvC	.2005
	s.d.	.1324	.0889	.0889	AvB	.1282
MISC	Mean	.2701	.1730	.0919	AvC	.2368
	s.d.	.1346	.1019	.0919	AvB	.1370
NASC	Mean	.3799	.6720	.1494	AvB	.4282
	s.d.	.1268	.1045	.0812	BvC	.1850
					AvC	
NISC	Mean	.4051	.7100	.1993	AvB	.4579
	s.d.	.1262	.1097	.1297	BvC	.1880
					AvB	
FASC	Mean	.3948	.1799	.7527	AvB	.3720
	s.d.	.1327	.0936	.0739	BvC	.1820
					AvC	
FISC	Mean	.3257	.1208	.7174	AvB	.3074
	s.d.	.1250	.0620	.0964	BvC	.1785
					AvC	

Notes:
(a) Group A: *Androgynous*; Group B: *Undifferentiated*; Group C: *Feminine*
(b) $p < 0.01$

FIGURE 1. Group Gender-In-Self Scores



Notes
MASC: *masculinity in actual self-concept*
MISC: *masculinity in ideal self-concept*
NASC: *non-differentiation in actual self-concept*
NISC: *non-differentiation in ideal self-concept*
FASC: *femininity in actual self-concept*
FISC: *femininity in ideal self-concept*

dorse*m*ent of any traits that were stereotypically associated with either one sex.

Group C, by far the smallest of the three groups, accounted for only 6.6% of the sample. For members of this group, actual self concepts were overwhelmingly feminine (75% of endorsed traits). Neither masculine or undifferentiated traits played much part in the construction of actual self. Ideal self-concept was broadly similar, except that, as for the other two groups, there was a slight shift away from feminine traits towards undifferentiated or masculine ones. This group was labelled "*feminine*," on account of the stereotypically female self that members in this group appeared to have constructed for themselves.

We now turn to the findings from the further examination of our groups in terms of AFSETs and AFLETs.

Between-Group Differences in AFSETs and AFLETs

(a) Actual and Ideal Self-Concept

For actual self-concept, the three groups did not differ significantly (one way analyses of variance) on either AFSETS (see Table 3) or AFLETs (see Table 4).

However, for ideal self-concept there were several significant group differences on AFSETs. The undifferentiated group endorsed traits higher on adult, conscientious, and emotionally stable, and lower on adapted child, than the other two groups (see Table 3). These differences were reflected in a group difference for AFLETs on Factor 1 (*resourceful/dependable*), with the undifferentiated group endorsing traits that were more heavily loaded on this factor than was the case for the other two groups.

We may conclude that the undifferentiated group aspired towards traits that expressed an adult ego state, as well as conscientiousness and emotional stability, and that this reflected a more vigorous pursuit of resourcefulness and dependability than was the case for the other two groups. Indeed, the feminine group hardly aspired to greater resourcefulness or dependability at all.

(b) The Stereotype of the Female

The groups differed greatly in their beliefs about what was typically female.

They were also lower on the adapted child ego state. The undifferentiated group provided a mirror image, endorsing as feminine traits that scored lower on strength, adult and free child ego states, extraversion, agreeableness, conscientiousness, emotional stability and openness, favourability and psychological importance. They also endorsed traits that were higher on the adapted child ego state. The androgynous group lay between the other two groups on all the trait features mentioned above (see Table 3).

All these differences were reflected in AFLETs, with the feminine group endorsing (as stereotypically female) traits which were not so low on the resourceful/dependable factor (compared to the other two groups) but which were higher on care/harmony.

Again, by way of mirror image, the undifferentiated group endorsed traits loading negatively on care/harmony (in contrast to the other two groups) and more negatively on resourcefulness/dependability (compared to the other two groups) (see Table 4).

We had already seen from an earlier analysis (Winter and Udomsak, 2003) that the sample as a whole viewed care/harmony as a "female" factor, and resourceful/dependable as a "male" factor. It now appeared that the femi-

TABLE 3. Group Scores on AFSETs

	Androgyn. n = 137		Undiffer. n = 42		Feminine n = 13		Whole Sample n = 196		
	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.	Sig.Diffs.
ACTUAL SELF									
Strong	523.95	31.78	529.71	32.93	520.56	19.39	525.04	31.39	
Active	515.54	25.13	515.89	22.43	503.92	20.97	514.94	24.26	
Favourable	331.04	24.56	337.63	29.39	335.26	21.22	332.70	25.55	
Con. Parent	1.20	0.23	1.15	0.20	1.20	0.28	1.19	0.22	
Nur. Parent	1.50	0.21	1.53	0.27	1.57	0.21	1.51	0.22	
Adult	1.09	0.28	1.17	0.31	1.08	0.15	1.11	0.28	
Free Child	2.19	0.19	2.21	0.20	2.08	0.19	2.18	0.19	
Adap. Child	2.07	0.28	1.97	0.32	2.05	0.24	2.05	0.29	
Psy. Import	314.71	8.80	316.12	10.12	316.35	8.11	315.07	9.03	
Extravert	3.45	0.21	3.48	0.26	3.40	0.18	3.45	0.22	
Agreeable	3.34	0.19	3.36	0.22	3.37	0.19	3.34	0.20	
Conscient.	3.34	0.21	3.36	0.24	3.34	0.11	3.34	0.21	
Em. Stable	3.09	0.20	3.16	0.24	3.12	0.21	3.11	0.21	
Open	3.37	0.17	3.40	0.18	3.31	0.13	3.37	0.17	
IDEAL SELF									
Strong	548.85	28.90	562.36	20.76	536.69	34.53	550.90	28.61	
Active	527.04	21.08	531.06	20.32	519.29	21.63	527.45	20.93	
Favourable	345.17	23.91	355.73	15.48	339.92	23.43	346.91	22.85	
Con. Parent	1.27	0.23	1.30	0.19	1.31	0.18	1.29	0.22	
Nur. Parent	1.54	0.22	1.60	0.19	1.59	0.18	1.56	0.21	
Adult	1.31	0.27	1.44	0.20	1.19	0.31	1.33	0.27	AvB
Free Child	2.22	0.20	2.24	0.17	2.09	0.21	2.21	0.20	
Adap. Child	1.83	0.27	1.69	0.18	1.93	0.30	1.81	0.27	AvB, BvC
Psy. Import	319.12	8.42	322.12	5.52	316.81	8.15	319.54	7.95	
Extravert	3.56	0.19	3.65	0.13	3.49	0.24	3.57	0.19	
Agreeable	3.37	0.18	3.42	0.13	3.37	0.15	3.38	0.17	
Conscient.	3.48	0.19	3.57	0.12	3.44	0.19	3.49	0.18	AvB
Em. Stable	3.25	0.19	3.35	0.11	3.17	0.21	3.26	0.19	AvB, BvC
Open	3.46	0.15	3.52	0.12	3.39	0.21	3.47	0.15	
FEMALE STEREOTYPY									
Strong	475.08	36.11	453.08	38.35	507.42	32.56	472.46	38.49	AvB, BvC, AvC
Active	485.07	36.17	482.62	39.74	505.69	26.15	485.93	36.65	
Favourable	295.61	17.21	279.01	20.69	313.25	20.96	293.18	20.15	AvB, BvC, AvC
Con. Parent	1.29	0.27	1.33	0.20	1.24	0.13	1.29	0.25	
Nur. Parent	1.32	0.20	1.23	0.27	1.36	0.18	1.30	0.22	
Adult	0.64	0.25	0.53	0.23	0.95	0.23	0.63	0.26	AvB, BvC, AvC
Free Child	1.86	0.24	1.69	0.35	2.07	0.37	1.83	0.29	AvB, BvC, AvC
Adap. Child	2.49	0.28	2.65	0.31	2.22	0.20	2.51	0.30	AvB, BvC, AvC
Psy. Import	299.78	6.78	293.28	7.35	308.41	8.90	298.94	7.94	AvB, BvC, AvC
Extravert	3.05	0.20	2.90	0.25	3.27	0.29	3.03	0.24	AvB, BvC, AvC
Agreeable	3.10	0.16	3.01	0.21	3.19	0.18	3.09	0.18	AvB, BvC
Conscient.	3.05	0.16	2.93	0.15	3.22	0.21	3.04	0.18	AvB, BvC, AvC
Em. Stable	2.80	0.16	2.65	0.18	2.99	0.13	2.78	0.18	AvB, BvC, AvC
Open	3.02	0.18	2.92	0.22	3.24	0.24	3.01	0.21	AvB, BvC, AvC

Notes: (a) Androgyn: *Androgynous*; Undiffer.: *Undifferentiated*. (b) Significance level: $p < 0.01$.

nine group had an even more focused view of females as caring and harmonious than was the view of the other two groups. This group also appeared to credit females with a greater degree of resourcefulness and dependability than did the other two groups.

CONCLUSIONS

In summary, our MtF transgenders were highly heterogeneous group, displaying widely variant degrees of masculinity and femininity in actual and ideal self. Notwithstanding this

TABLE 4. Group Loadings on AFLETs

	Androgyn. N = 147		Undiffer. n = 42		Feminine n = 13		Whole Sample n = 196		
	Mean	s.d.	mean	s.d.	Mean	s.d.	mean	s.d.	Sig.Diffs.
ACTUAL SELF									
Res/Dep.	0.12	0.31	0.22	0.35	0.13	0.22	0.14	0.31	
Intru/Con.	−0.18	0.21	−0.20	0.19	−0.20	0.23	−0.18	0.21	
Risk/Stim.	0.10	0.18	0.12	0.18	-0.01	0.16	0.10	0.18	
Care/Harm	0.35	0.24	0.38	0.29	0.42	0.22	0.36	0.25	
IDEAL SELF									
Res/Dep.	0.38	0.29	0.53	0.20	0.26	0.34	0.40	0.29	AvB, BvC
Intru/Con.	−0.08	0.20	−0.04	0.17	−0.07	0.15	−0.07	0.19	
Risk/Stim.	0.18	0.17	0.21	0.15	0.07	0.21	0.17	0.17	
Care/Harm	0.42	0.23	0.49	0.17	0.43	0.20	0.43	0.22	
FEMALE STEREOTYPY									
Res/Dep.	−0.36	0.27	−0.54	0.29	−0.04	0.23	−0.39	0.30	AvB, BvC, AvC
Intru/Con.	−0.23	0.27	−0.21	0.17	−0.18	0.15	−0.22	0.24	
Risk/Stim.	−0.26	0.24	−0.38	0.34	−0.03	0.30	−0.27	0.28	
Care/Harm	0.07	0.19	−0.07	0.24	0.18	0.22	0.05	0.22	AvB, BvC

Notes
(a) Androgyn: *Androgynous;* Undiffer: *Undifferentiated*.
(b) Res/Dep: *resourceful/dependable*;
Intru/Con: *intrusive/controlling*;
Risk/Stim: *risk-taking/stimulation-seeking*;
Care/Harm: *caring/harmonious*.
(c) Significance level: $p < 0.01$.

uniqueness as individuals, they nevertheless fell into discernible groups.

Let us first of all take the largest of these groups. The vast majority (around seven in every ten) appeared androgynous, endorsing a broad range of characteristics regardless of whether they were masculine, feminine, or undifferentiated. This echoes earlier findings indicating degrees of androgyny in Western transgender. Among them are the findings of Skrapec and MacKenzie (1981); Fleming et al. (1984); Doorn et al. (1994); Cole et al. (1997); and Lippa (2001). Lippa's Californian findings are among the more striking. He found that, not only did MtF transgenders' self-ascribed femininity approach that of control females, their self-ascribed masculinity also approached that of males.

It is the other two groups–undifferentiated and feminine–that were perhaps the most interesting. Combined they represented little more than one in four of our participants, and were easily missed in our earlier searches for whole sample effects (Winter and Udomsak, 2002, 2003).

The undifferentiated group represented two in ten participants. They differed from other transgenders by mainly endorsing those traits perceived as being shared equally between both sexes, and eschewing any that were associated with only one. Rather than expressing both masculine and feminine traits (as was the case for the androgynous group), they seemed to express neither. In some sense they seemed to typify *phet tee sam* ("the third sex," a common Thai label for the MtF transgender). We have found that some Thai transgenders do indeed think of themselves in terms of this label (Winter et al., in preparation); *a label which, for them, carries more positive connotations than does the more common one of "kathoey." Arguably, the undifferentiated group might be most likely to see themselves in this way. But this is pure speculation; the research on this remains to be done*.

Importantly, the non-differentiation applies to both actual and ideal selves. One wonders by what process these transgenders arrived at such an "agendered" view of themselves. Gottschalk (2003) has recently argued that females who fail to conform to standard gender-role often do so as an act of resistance against the straightjacket of female gender norms. One wonders whether some of our transgenders became undifferentiated through a similar resistance–in this case to the tyranny of gender norms of any kind at all.

Turning last of all to the feminine group, this smallest one represented around seven in every hundred of our participants. Overall, they differed from other transgenders by endorsing predominantly feminine traits, and generally eschewing those associated with males. Intriguingly, members of this group saw women in a rather idiosyncratic way, viewing them (more emphatically than anyone else) as caring and harmonious (universally stereotyped as female), but also as resourceful and dependable (usually stereotyped as male). In short, their stereotype of women was, on one hand, more extreme and, on the other, more broad than was the case for those in the other groups.

The existence of a feminine group was somewhat unexpected. In our earlier search for generalisations we had concluded that our sample "resist being 'slaves to stereotype' and instead have ideals for themselves that are guided by factors other than conformity to gender stereotype" (Winter and Udomsak, 2002a, discussion). The feminine group undermines the generality of this conclusion. Here indeed we seem to have *phuying praphet song* ("a second kind of woman," *another common Thai term for MtF transgenders that, again for them, carries more positive connotations than the more usual "kathoey."* In recent research we have found that around one in three transgenders describe themselves in this way (Winter et al., in preparation). Again, one might speculate that it is the feminine group which is most likely to do so. But once again, research on this remains to be done.

These groups beg further research. Most importantly, we need to find out if they can be consistently identified in samples elsewhere, either in Thailand or in other cultures. A recent Polish study already hints that they might, albeit in different numbers. Herman-Jegliska et al. (2002) employed a version of the Bem Sex Role Inventory to identity masculinity, femininity, androgyny, and non-differentiation among transgenders (MtF and FtM), as well as control participants (males and females). Using cut-offs determined by the median-split method (Bem, 1977), they found that around 38% of their MtFs were androgynous, 10% were undifferentiated, and 52% were feminine. Among the FtMs they found 37% were androgynous, 14% were undifferentiated, and 38% were masculine. Interestingly, a small number (12%) were feminine.

The Polish incidence figures are very different from our own of course. Most strikingly, the feminine MtFs in the Polish sample seem to outweigh our own by a factor of eight. Discrepancies of this sort deserve some comment. They may arise from the fact that we are here considering two cultures, and we know from earlier work (for example, Taywaditep et al., 1997) that the gender landscape of Thailand is very different to most in the West. We should also note that the two studies used rather different instruments and delivered them in different languages. The studies also employed very different samples, neither of which could claim to be representative of transgenders as a whole. The Polish sample consisted of both "primary" and "secondary" transsexuals, while, had we chosen to categorise our sample in that way, all of our respondents would have been classed as "primary." Last of all, the Polish sample was very small (29), about one seventh the size of our own.

Perhaps most importantly, we should note that the two studies used very different methods for determining membership of groups. The Polish study examined (for actual self-concept only) participants' masculinity and femininity scores relative to others, employing the median-split method for determining group membership. By way of example, a participant was feminine if above the median for femininity and below the median for masculinity. This approach to determining groups has been much criticised (e.g., Cook, 1985).

In contrast, the current study examined (for both actual and ideal self-concept) the balance of masculinity, femininity, and non-differenti-

ation in each participant's responses. No participant was compared against the rest of the sample. Rather, cluster analysis was used to identify whatever groups were suggested by the data; groups whose members shared common characteristics not shared by others. Again by way of example, one of the groups turned out to be "feminine," with members expressing female-stereotyped traits much more commonly than they expressed any that were masculine or undifferentiated.

For all these reasons, it is no surprise that the two studies, while identifying similar groups, put different numbers on them.

If transgender populations consistently appear to divide into groups as described in the current paper then research might profitably examine whether they have any further distinguishing features (apart from their degrees of masculinity and femininity). For example:

a. Do these groups express different identities along lines discussed earlier in this section? Do feminine transgenders perceive themselves as female (or female variant)? Do undifferentiated (or indeed androgynous) transgenders see themselves as a third sex? Which, if any, see themselves as male/male variant?
b. What sort of circumstances determine that a transgender becomes androgynous, undifferentiated, or feminine? How do their life histories differ? One intriguing possibility is that pharmacology and/or surgery play a part. Perhaps those that see themselves as feminine are most likely to place themselves on a hormone regimen, or to engage in surgery (including SRS).

   Perhaps lines of influence run in the other direction, with hormones and surgery prompting a shift in sense of self. A recent study by Slabbekorn et al. (2001) suggests that such effects can occur, though it remains unclear as to whether the effects might be so great that a person might transition from group to group.

   More likely there is reciprocal influence: certain groups being more likely than others to draw on pharmacology and surgery, and, consequent upon bodily changes, experiencing changed senses of self. Clearly there is a need for longitudinal work in this area.
c. Do these groups enjoy different degrees of mental health, well-being, and adjustment? Are some better able to cope with the often hostile reactions of the societies in which they live? On one hand, Blanchard et al.'s (1983) research suggests that the feminine might be best adjusted. On the other hand, the research presented in this paper suggests that the undifferentiated might fare best. After all, they aspired to greater resourcefulness and dependability than was the case among the other groups, placing particular emphasis on becoming emotionally stable and adult. Whether these aspirations really do predict adjustment and well-being is an open question.

Whether the feminine or the undifferentiated are best adjusted, the result would be an undermining of the idea–expressed in research both old (for example Hinrichsen et al., 1981) and recent (for example Wulff and Steitz, 1999)–that androgyny best predicts good mental health.

As a final note, we should not get too carried away by findings on androgyny, non-differentiation and femininity among transgenders. One might reasonably ask how many "ordinary" men and women might fall into three groups of the sort described in this paper. Would transgenders be any different from other people? Herman-Jeglinska et al.'s Polish data suggests androgyny was more common, and non-differentiation less common, among transgenders than for control males and females. But that was Poland, and very different methods of identifying groups. What about elsewhere?

Of course, androgyny and nondifferentiation exist only in relation to gender-trait stereotypes. The nature of each varies across cultures and changes over time. Two recent pieces of research show this very clearly. Bourke (2002) reports that, among UK youth, the old stereotypes may be reversing, so that what was considered male is now increasingly viewed as female. On the other side of the globe Japan, Sugihara, and Katsurada (2002)

report that the old stereotyped differences between males and females are fast disappearing, so that concepts of gender-traits stereotype, androgyny, and nondifferentiation pretty much lose their meaning.

We are currently engaged, with others, in an international study of gender-trait stereotypes as expressed by non-transgendered people in Thailand, Malaysia, Hong Kong, Singapore, the UK, and USA. In so far as we are also collecting data on self-concept, we should be able later on to report on androgyny and nondifferentiation among "ordinary" people in each of these societies.

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