SCOTT OATLEY GENDER
PERFORMANCE SCALE
AS A QUANTITATIVE
INSIGHT INTO
INTRACATEGORICAL
INTERSECTIONALITY

#### CONSTRUCTION OF A GENDER SCALE

- Measurement of identity categories within social surveys is integral to social stratification
- Social Class is the perfect example of this: RGSC, NS-SEC, Wright etc...
- Gender identity is not given the same fervor
- Existing measurements of gender identity are in my view a bit naff

#### GENDER

- Gender is something identified, embodied, and performed.
- When people incorporate the cultural meanings of gendered categories into their own selves, the gender becomes part of their identities.
- These identities are understood in a relational position to culturally feminine and masculine meanings attached to what men and women are, and how they act (Wood and Eagly 2010, 2012).

#### A FEW CAVEATS

■ What do I mean by 'Gender Performance'? (Butler 2006)

■ What do I mean by Intracategorical Intersectionality? (Bauer et al 2021)

- I am not tied down to the ideas presented in this presentation
  - I'd love to hear from dissenting opinions/voices on this!

#### THE PROBLEM

- Are all social issues reducible to a categorization of sex?
- No
- What are some of the alternatives in social survey research?
- Gender Identity
- Is this a great measure currently?
- so/so

#### GENDER IDENTITY CURRENTLY

- Categorical
- Relatively Fixed\*
- Overly restrictive
- VERY small sample size for 'OTHER'
- The anti-categorical trend is very strong among LGBT+ Youth

#### THE PROBLEM

- It's a theoretically reasoned position (perhaps the dominant consensus) that many social processes are influenced by sex as well as gender
- It's a basic statistical fact that we cannot simply add a measure of sex and a measure of gender identity into our statistical models
- Collinearity would be massive
- Vast, vast majority of individuals sex aligns with their gender identity
  - Census 2021 showed that 262,000 people (0.5% of the population aged 16 years and over) reported that their gender identity was different to their sex registered at birth. (Biggs 2024)
    - Though this is probably lower

#### THE SOLUTION

- Look to gender scales
- Common and widely used in psychometric testing
- Near non-existent in social survey settings
- Gender scales measure individuals' identity differently compared to self-identity categories (Eagly and Wood 2015)
  - I'd add they measure it better also...

#### GENDER SCALES

- A lot of them... (Geeta 2011)
- Gender Beliefs scale
- Women's empowerment scale
- Gender Norms attitude scale
- Gender relations scale
- Household-Decision making scale
- Sexual Relationship Power scale

#### PROPOSED 'GENDER PERFORMANCE' SCALE

- NOT tied to the name
- An attempt to use social survey data to provide a useful alternative to gender identity categorization
- Ability to use this in addition to sex to appropriately explain variance in statistical models
- My belief is that currently sex is capturing too much of variance in our models that ought to be re-distributed to matters better represented by that of gender identity

#### PROPOSED 'GENDER PERFORMANCE' SCALE

- Enter the UKHLS wave 10
- N=10,075
- Has some detailed data on couples' distribution of domestic duties and gender roles
- This is not an ideal nor is it a perfect selection of variables
- This paper is as much a call to action for surveys to adopt a much wider number of measures regarding gender, as it is a paper to demonstrate possibilities

#### PROPOSED 'GENDER PERFORMANCE' SCALE

- Using factor analysis to construct a measure of gender performance
- Performance used in the Butler sense of the term
- Again, not tied to this name, feel free to suggest others
- After factor analysis, run simple model on subject that has key sex/gender basis (glass ceiling)

- Exploratory factor analysis on six variables of household decision making
- Varimax Rotation
- Each variable is coded to three possible values based on prior literature on topic of domestic duties
  - -1 = Traditionally feminine
  - $\bullet$  0 = Neither traditionally Masculine nor traditionally Feminine
  - 1 = Traditionally masculine

- This coding structure is 'sex' blind
- A male under this coding scheme could score highly on 'traditionally feminine' even if they are a male and vice versa for females
- Additionally, the inclusion of '0' values allows the inclusion of individuals that do not fit into traditional gender norms

- Six variables:
- Who makes household financial decisions?
- Who does the grocery shopping?
- Who does the DIY jobs?
- Who does the cooking?
- Who does the washing/ironing?
- Who does the cleaning?

# FACTOR ANALYSIS – INTERNAL CONSISTENCY SCORE (CRONBACH'S ALPHA)

Item	Alpha
Financial Decisions	0.80
Grocery Shopping	0.72
DIY Jobs	0.73
Cooking	0.71
Washing/Ironing	0.68
Cleaning	0.70
Test Score	0.76

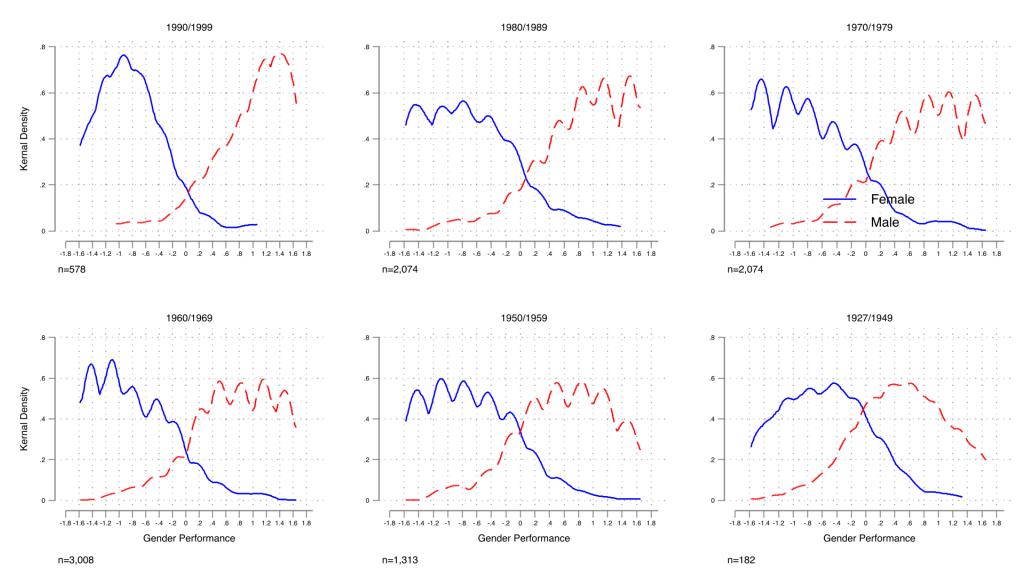
- Two factors produced with eigenvalue >1
- Financial decisions loads weakly onto factor two, rest load very well onto factor one
- Decision made to drop Financial decisions and carry on with factor one as 'performance scale'

### FACTOR ANALYSIS – LOADINGS

Item	Loading
Grocery Shopping	0.73
DIY Jobs	0.63
Cooking	0.75
Washing/Ironing	0.81
Cleaning	0.78

#### Distribution of Gender Performance Measure by Gender over Birth Cohorts

Illustration of the Bimodal Expression of Gender Performance



Data: UKHLS Wave 10, N=10,075

Positive values associated with increasing levels of masculinity, negative values associated with increasing levels of femininity

#### SIMPLE GLASS CEILING MODEL

- Does this measure tell us anything important?
- Is this measure just a proxy for time spent doing housework? (Hersch and Stratton 1994)

## IS THIS MEASURE JUST A PROXY FOR TIME SPENT DOING HOUSEWORK?

Correlation between number of hours spent on household work and performance measure = 0.5

#### DOES THIS MEASURE TELL US ANYTHING IMPORTANT?

- Three models presented
- Model 1 = Sex + controls
- Model 2 = Sex + Performance + Controls
- Model 3 = Sex + Performance + squared + Controls
- Models doubled to assess SVY adjustments

Table 1.1: Descriptive Statistics for Gender Performance Model

**Data Source: Wave 10 UKHLS** 

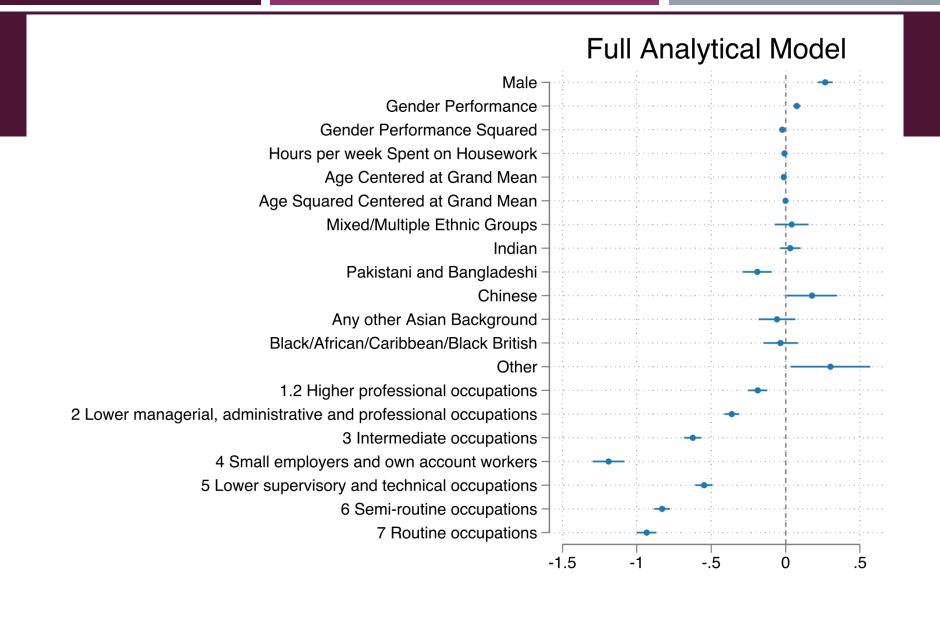
	n	%
Sex		
Female	5,052	50.14%
Male	5,023	49.86%
Ethnicity		
White	8,739	86.74%
Mixed/Multiple Ethnic Groups	148	1.47%
Indian	396	3.93%
Pakistani and Bangladeshi	372	3.69%
Chinese	43	0.43%
Any other Asian Background	101	1.00%
Black/African/Caribbean/Black British	247	2.45%
Other	29	0.29%
Current Social Class (NS-SEC)		
1.1 Large employers and higher managerial and administrative occupations	516	5.12%
1.2 Higher professional occupations	996	9.89%
2 Lower managerial, administrative and professional occupations	3,298	32.73%
3 Intermediate occupations	1,309	12.99%
4 Small employers and own account workers	1,023	10.15%
5 Lower supervisory and technical occupations	696	6.91%
6 Semi-routine occupations	1,459	14.48%
7 Routine occupations	778	7.72%
	Mean	SD
Log Net Labour Income	7.25	0.78
Age Centered at Grand Mean	-3.38	11.09
Age Squared Centered at Grand Mean	134.39	164.53
Gender Performance	0.00	1.00
Gender Performance Squared	1.00	0.90
Hours per week Spent on Housework	9.21	7.46
		10075
<u>n</u>		10075

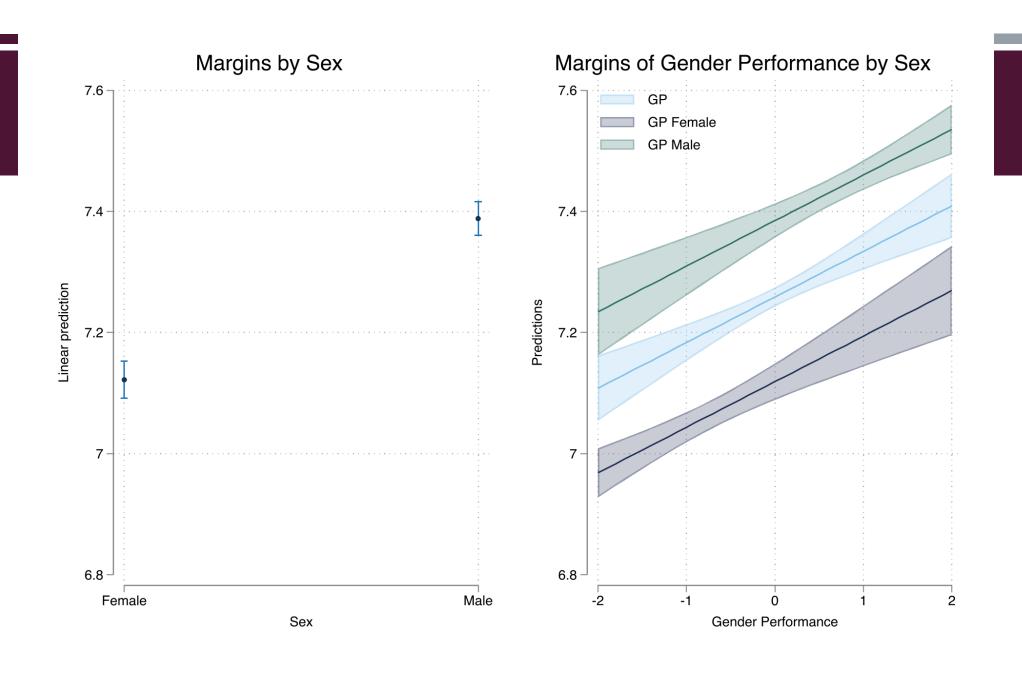
Table 1.2: Regression Models of relationship between gender and performance on log income (other controls not shown)

	OLS Regression (Gender Only)		SVY OLS Regression (Gender Only)		OLS Regression (Gender + Performance)		SVY OLS Regression (Gender + Performance)		OLS Regression (Performance Squared)		SVY OLS Regression (Performance Squared)	
Sex												
Female	0.00		0.00		0.00		0.00		0.00		0.00	
	(0.00)		(0.00)		(0.00)		(0.00)		(0.00)		(0.00)	
Male	0.33	***	0.36	***	0.26	***	0.27	***	0.25	***	0.27	***
	(0.01)		(0.02)		(0.02)		(0.03)		(0.02)		(0.03)	
Gender Performance					0.06	***	0.07	***	0.06	***	0.08	***
					(0.01)		(0.01)		(0.01)		(0.01)	
Gender Performance Squared									-0.03	***	-0.02	*
									(0.01)		(0.01)	
Intercept	7.82	***	7.82	***	7.84	***	7.84	***	7.88	***	7.87	***
	(0.03)		(0.03)		(0.03)		(0.03)		(0.03)		(0.03)	
Number of observations	10075		10075		10075		10075		10075		10075	
AIC	20008.79				19981.76				19967.15			
BIC	20145.92				20126.12				20118.73			
Adjusted R-squared	0.31				0.31				0.31			

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

Data Source: UKHLS Wave 10. Adjusted for Complex Sample. n=10,075





### LIMITATIONS

- Scale dependent on less than gold standard variables
- Scale is bipolar in nature

#### SOLUTIONS

- Fund our social surveys
- Fight the good fight! Just because measurement isn't perfect that doesn't mean we should no longer attempt to measure concepts!