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# Saying and Doing Gender: Intergenerational Transmission of Attitudes towards the Sexual Division of Labour

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## ABSTRACT

The persistence of gender inequalities in the division of paid and unpaid work poses an important question for gender socialization research: what matters most for the intergenerational transmission of gender-role attitudes, parental own attitudes or parental behaviours? Recent explanations in cultural economics suggest that intentional attitudinal transmission is the main driver of cultural reproduction. In line with classical sex-role learning models, we contend, however, that what parents *do* is at least as important as what parents *say* for gender-role transmission. Using data for British children aged between 11 and 15 we estimate the independent influence of each of these two socialization channels on children's attitudes towards the sexual division of labour (ASDL). We show that both parental attitudes and parental behaviours are crucial in the formation of children's ASDL, and that parental influences are stronger when they operate through same-sex dyads. We also show that mothers' time out of the labour force is a stronger predictor of children's ASDL than either mothers' or fathers' own attitudes. Finally, analysis of a subset of the children followed into their early adult lives shows that ASDL formed in childhood have significant and lasting consequences for both adults' gender attitudes and their behaviours.

## KEYWORDS

*Gender-Role Attitudes, Children, Parental Socialization, Behavioural Sex-Role Modelling, British Household Panel Survey, UKHLS*

## INTRODUCTION

With increasingly egalitarian attitudes and a steady increase in women's labour market participation over the last 40 years, the persistence of a gendered division of paid and unpaid work

in Western nations is a puzzle. Ridgeway (2011), for example, notes that the unequal distribution of paid and unpaid work occurs despite changes in overall female labour market participation, legislation outlawing discrimination, and widespread views that girls and boys should have the same opportunities. A key contributory factor is likely to lie in intergenerational transmission of more traditional attitudes to the division of labour, which are important predictors of behaviour both in the private and the public spheres. Understanding how these attitudes are transmitted over generations is therefore a crucial question for gender stratification research.

Both classic socialization models in sociology (Acock and Bengtson 1980; Alwin 1984; Bandura 1977; Okamoto and England 1999), as well as cultural transmission models in economics (Escriche 2007; Fernandez et al. 2004) have emphasized the importance of parental socialization in the formation of gendered preferences and beliefs. But empirical research on the subject is still fragmented and suffers from a number of limitations.

First, despite a host of empirical evidence showing significant correlations between parental characteristics and children's gender-role attitudes, we still know little about the precise channels and mechanisms involved in early preference transmission (Cunningham 2001a; Reskin 2003). This problem largely stems from data limitations, which have often led researchers to draw on adult samples to address socialization processes expected to take place during childhood (e.g. Farré and Vella 2013; Fernandez and Fogli 2009).

Second, empirical research has typically emphasized women's gender attitudes, how they are shaped and how they affect women's supply of work. Hence the transmission of gender attitudes from mothers to daughters has received special attention (Cipriani et al. 2013; Cunningham 2001a; 2001b; Fernandez and Fogli 2009; Moen et al. 1997; van Putten et al. 2008). By contrast, men's role in the process of gender-role transmission has been relatively neglected (but see Davis and Wills 2010; Polavieja and Platt 2014; Fernández et al. 2004).

Third, recent research on the intergenerational transmission of gender attitudes, particularly transmission models in economics, tends to assume an active mode of parental socialization (Bisin and Verdier 2001). Yet children may also learn from parents' passive enactment of gender roles, even when such enactments contradict parents' stated attitudes. In other words, children might learn from what parents *do* as much as from what parents *say* (Cunningham 2001a; Eagly et al. 2000; Hitlin 2006). Identifying the relative importance of enacted and stated

socialization is increasingly important as people's stated gender attitudes and those revealed in their behaviours often diverge (Hochschild and Machung 1989).

Fourth and finally, evidence linking research on the formation of attitudes in childhood with their consequences for subsequent division of labour is scant, due to researchers' dependence on concurrent adult samples. Yet in order to show that transmission processes play a role in the reproduction of gender inequality, it is essential to find evidence linking childhood attitudinal transmission to adult attitudes and behaviours, and this requires longitudinal data.

Our research addresses these limitations by investigating the early transmission of attitudes towards the sexual division of labour (ASDL) from parents to their 11 to 15-year-old children, using data from the British Household Panel Survey from 1994-2010. We focus on parental attitudes for which we have corresponding behaviours and this allows us to identify the influence of both parents' *stated* and parents' *enacted* gender roles on children's ASDL. We can thereby gauge the relative importance of behavioural and attitudinal forms of cultural transmission. Drawing on previous research on the formation of sex-typical occupational preferences (Polavieja and Platt 2014), we also investigate the relative influence of homolineal transmission (same-sex parent-child dyads) and heterolineal transmission (opposite sex parent-child dyads). In addition, we follow children into their early adult lives and show that early transmission of ASDL from parents to children has indeed significant consequences for both children's *stated* and children's *enacted* gender roles as adults.

## FRAMEWORK

### *Parental Attitudes and Behaviours as Two Distinctive Transmission Channels*

Explaining the persistence of gender inequalities in the division of paid and unpaid work in post-industrial societies remains a challenge. Women still bear the brunt of household chores across the globe (see e.g. OECD 2012). Estimates for Britain show that there has been very little change over the past two decades in the percentage of couple households dividing household chores along traditional gender lines (Clery and Scott 2013). Moreover, although female labour force participation rates have increased significantly in the last 30 years, much of this is part time. Even though British women's overall employment between the ages of 16 and 64 reached 67 per

cent in 2013, over two-fifths of that was part-time, compared to 13 per cent of men's employment (ONS 2013). As a result, women still devote on average 100 minutes less per day to paid work than men, while they do around 5 hours more housework and 13 hours more family care per week (Clery and Scott 2013: 126-129). These data speak of a persistent division of labour across gender lines. Although this phenomenon is certainly not unique to the United Kingdom, Britain makes an interesting case study as it combines high gender gaps in both unpaid and paid work time due to its comparatively high rates of part-time employment among mothers. Evidence from the early 2000s indicates that by the time their baby is around nine months old around 48 per cent of UK mothers are in paid work, but three-quarters of these work part-time (Dex and Joshi 2004). Mothers' employment rate increases as children age, but remains dominated by part-time work. In 2004, mothers with children aged 0-4 had part-time employment rates of 38 per cent, with 21 per cent full-time (Walling 2005), while among those whose youngest child was aged 5-10, 50 per cent were in part-time work, with 27 per cent full-time. For those whose youngest child was secondary school age (11-15), 42 per cent were in part-time and 38 per cent in full-time work.

Meanwhile, there has been a substantial decline in traditional gender attitudes around the world (Bolzendahl and Myers 2004; Inglehart and Norris 2003). In Britain, for example, close to half the population in the mid-1980s agreed that "a man's job is to earn money; a woman's job is to look after the home and family"; this figure went down to 13 per cent by 2012 (Scott and Clery 2013:119). Significant declines in gender traditionalism have also been found in other dimensions of gender attitudes, albeit at a slower pace.<sup>1</sup>

This contrast between stated attitudes and the actual division of labour between the sexes means that a considerable number of people might be expected to display traditional gender roles even though their stated gender attitudes are not traditional.<sup>2</sup> At the same time, while traditional attitudes have declined overtime they appear to be stabilising among more recent cohorts (Cotter et al. 2011; Scott and Clery 2013). Even if there is some tendency for attitudes or preferences to change with life events and policy context (Baxter et al. 2015; Gangl and Ziefle 2015), and for behaviours and attitudes to converge to reduce dissonance (Festinger 1957), it is clear that it is

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<sup>1</sup> For example, Scott and Clery (2013:120-122) show that between 1989 and 2012 the proportion of people in the UK thinking that "pre-school children suffer if their mother works" fell from 46 per cent to 30 per cent, while the proportion expressing the view that "family life suffers when the woman is employed full-time" fell from 42 per cent to 27 per cent (see also Braun and Scott 2009).

<sup>2</sup> Parents may also hold traditional values but display non-traditional roles (e.g. full-time labour market participation), thus sending equally mixed signals to their children.

possible for individuals to maintain attitudes that are at odds with their actions.<sup>3</sup> The gap between behaviour and attitudes alongside the persistence of traditional attitudes allows us to investigate the relative influence of attitudinal and behavioural mechanisms of cultural transmission that results in continuing gendered inequalities in the public and the private spheres.

In the last decade the study of socialization processes has experienced a certain revival in the social sciences as economists have developed formal models of cultural transmission (Bisin and Verdier 2001; ESCRICHE 2007). In these models parents are assumed to purposively transmit their own beliefs, preferences and values to their offspring because they hold these values, preferences and beliefs to be true and/or beneficial to their children. Behaviours and attitudes are assumed to be congruent (Fernández et al. 2004). This process is known as *vertical* transmission.<sup>4</sup>

Vertical transmission models thus assume that parents *wish* to pass on their own cultural traits to their offspring and that they devote a certain socialization effort to this end. Some form of verbal instruction or exhortation is therefore implied (see e.g. Farré and Vella 2013). We note that these models resemble early symbolic interactionist approaches in sociology in that both view socialization as a process whereby an actor conveys “indications to another person as to how he is to act” (Blumer 1966: 537 in Starrels and Holm 2000). Vertical transmission models, then, expect a significant correlation between parents’ and children’s *stated* values.

Research on the intergenerational transmission of attitudes has consistently shown that there is indeed a strong correlation between children’s attitudes and those of their parents (Cunningham 2001b; Min et al. 2012; Moen et al. 1997; Rico and Jennings 2015; Vollebergh et al. 2001). Yet this evidence does not in itself constitute proof of intentional transmission. Classical socialization theories in both social psychology (e.g. Bandura 1977) and sociology (e.g. Eagly 1987; Thornton et al. 1983) have long stressed that parents not only serve as “verbal persuaders” but crucially as role models to their children (Moen et al. 1997). Parental sex-typical behaviours can thus have an *independent* socialization influence on children’s ASDL because they allow

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<sup>3</sup> Hakim (2000) argues that attitudes are likely influenced by processes of social desirability and do not reflect people’s (true) preferences. However, the extent that they feel bound to conform is still relevant. The contrast between stated and enacted ASDL could alternatively be shaped by the actions of spouses/partners (Bulanda 2004; Schober and Scott 2012), and/or reflect larger societal constraints on individual choices, as stressed by much of the existing literature on gender inequality. Investigating the causes of the mismatch is beyond the scope of this paper.

<sup>4</sup> Horizontal transmission, by contrast, refers to cohort changes in attitudes that also shape children’s attitudes. We do not treat horizontal transmission in this paper.

children to make associations between gender and the performance of particular kinds of work (Cunningham 2001a) and because they provide children with crucial information about the social constraints under which men and women carry out their lives (Eagly et al. 2000). By observing their parents' behaviours in both the domestic and the public spheres children learn about the social distribution of constraints and opportunities between the sexes, discover socially-prescribed gender roles and form expectations about the costs of deviating from sex-typical behaviour (Polavieja 2012). This implies that parental sex-typical behaviours can act as a powerful channel of gender-role socialization independently of what parents say. In a world of increasing incongruence between enacted and stated gender roles, gauging the relative influence of vertical attitudinal transmission and behavioural sex-role learning becomes a crucial question for gender-socialization research.

We also wish to examine the role of fathers and mothers as distinct socialization agents. Some classical versions of socialization theory argue that the influences of the same-sex parent are particularly important in the transmission of gender role attitudes (Johnson 1975; Lynn 1969 in Cunningham 2001a). According to these theories we should expect stronger cultural transmission through same-sex parent-child dyads than through opposite-sex dyads. The question of the sex-specificity of transmission channels has, however, received little attention in the gender socialization literature (but see Cunningham 2001a; Polavieja and Platt 2014). Instead, the study of maternal influences has clearly predominated over the study of fathers' role as cultural transmitters (Cipriani, et al. 2013; Cunningham 2001a; Gupta 2006; Fernandez and Fogli 2009; Moen et al. 1997; van Putten et al. 2008).

In summary, two main empirical predictions can be derived from the arguments discussed above. First, we expect both parental attitudes and parental behaviours to exert an influence on children's ASDL; and, second, we expect that transmission effects are stronger when operating through same-sex parent-child dyads. Joint estimates of behavioural and attitudinal transmission are scant in the literature (but see Cunningham 2001a; 2001b; Hitlin 2006). Moreover because different authors work with different measures, findings are not comparable across studies. Hence, we do not hold any a priori expectation as to the relative strength of attitudinal versus behavioural transmission on children's ASDL. Yet we note that if behavioural sex-role modelling exerts a significant independent influence on ASDL, vertical transmission models that focus simply on attitudes offer only a partial account of cultural transmission processes.

### *The enduring influence of ASDL*

Transmission models assume that the formation of ASDL in early life has an enduring impact on children's attitudes and behaviours as adults. It is precisely because early transmission processes are assumed to have such impact on adult outcomes that they are considered relevant for the social reproduction of gender inequality. At the same time, evidence suggests that people change their gender attitudes in adult life in response to context, partners, and/or as a result of experiencing particular life events, such as marriage/cohabitation, employment or the birth of the first child (Baxter et al. 2015; Bulanda 2004; Gangl and Ziefle 2015). This evidence is consistent with theoretical approaches in social psychology and life-course research that see socialization as a lifelong process and stress the continuing socializing potential of small-group interactions, contextual influences, and peer effects (for a review, see Correll and Ridgeway 2003; Elder et al. 2003). The question of whether early ASDL have an enduring impact in adult life thus bears great theoretical importance. Yet this question has not been sufficiently investigated in empirical research due to a paucity of long-term longitudinal surveys (but see e.g. Moen et al. 1997; Cunningham 2001a; 2001b; Corrigal and Konrad 2007).

We are able to follow a subsample of young children into their early adult lives and this allows us to test, *first*, whether childhood ASDL are significant predictors of adult attitudes; and, *second*, whether childhood ASDL are significant predictors of adult behaviours. We focus on two behaviours: 1) the amount of housework people do as adults, and 2) the labour market attachment of women. Because the expected relationship between childhood ASDL and adult attitudes and behaviours is likely to be mediated by endogenous family, educational and occupational decisions (Vella 1994; Starrels and Holm 2000; Cunningham et al. 2005; Kroska and Elman 2009), it is important to test these associations without family, educational and occupational controls. In accordance with early socialization models, we expect that the intergenerational transmission of gender role attitudes will reveal itself in enduring associations between children's gender role attitudes and their attitudes and behaviours as adults.



## DATA AND METHODS

We use the British Household Panel Survey, a study of around 5,000 households living in Great Britain in 1991, whose adult members were first surveyed in 1991 and followed annually till 2008, after which they were incorporated in the UK Household Longitudinal Study (UKHLS) (Knies 2014; University of Essex 2009, 2013). All those from the original households continue to be interviewed even if they move or separate. All minors living in original households or born to original sample members are themselves core members of the panel and become eligible for the adult interview when they reach age 16. From 1994 (wave 4), a self-completion youth questionnaire for 11 to 15-year-olds was added to the study.

Around 4,600 children responded to the youth questionnaire and provided valid information on our key measure of gender role attitudes at least once between BHPS waves 5-18.<sup>5</sup> Using unique identifiers that matched relationships across household members, we linked these children's responses to data provided by their parents (co-resident natural or step parents) in the adult questionnaire. We focus our analysis primarily on young people living in couple parent families. This is because we are interested in the independent influence of mothers and fathers on their sons and daughters. Our main sample therefore comprised those 2,859 sons and daughters (1,387 girls and 1,472 boys) who were both living in couple parent families and had valid own and parental responses on gender role attitudes variable, and non-missing values on other variables. Single parent (overwhelmingly lone mother) families are likely to have a rather different influence on their children's attitudes in the absence of a father. However, for completeness, we additionally repeat the analysis with 897 young people living in lone mother families.

We further linked the boys' and girls' responses to their own subsequent responses to the main (adult) interview, where available. We restricted the sample to those who responded to the BHPS/UKHLS adult interview at age 22 or above (oldest was aged 30, mean age 25). As many of our respondents had not reached age 22 at the latest wave in our analysis, this reduced our sample of sons' and daughters' adult behaviours and attitudes to a subset of 302 men and 328 women with valid responses on the dependent variables. For those who provided responses at multiple interviews post-22, we concentrate on the latest response (as furthest from their childhood

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<sup>5</sup>Gender role attitudes were asked in seven waves of the BHPS youth questionnaire, starting at wave 5, but were not asked in the youth questionnaire of wave 2 of UKHLS ("BHPS wave 19").

attitudes). Because young people in the UK typically leave university at 21, this restricted sample captures the post-education period. Indeed, only seven per cent of this adult sample were studying, while over three-quarters were in full-time work (86% of sons, 63% of daughters). Around 28 per cent had obtained a degree, which is in line with expectations for this cohort. Respondents are moving from the direct influence of their parents; and just under 19 per cent were co-resident with either or both parent(s) when their adult outcomes were measured (see Online Appendix, Table 1).

### *Dependent variables*

The question on gender role attitudes that we exploited provided direct information about attitudes towards the division of labour between spouses. Hence, it provided a potentially direct route from observed behaviour (of parents) and to own enacted behaviour. It was one of a small suite of questions dealing with a range of family attitudes and took the form:

*Do you personally agree or disagree ... "A husband's job is to earn money; a wife's job is to look after the home and family"*

The five response categories ran from strongly agree (1) to strongly disagree (5) with neither agree nor disagree in between. We recoded these from -2 (least traditional) to +2 (most traditional)

We used this as the dependent variable for the analysis of intergenerational transmission of attitudes towards the sexual division of labour (ASDL). This measure of ASDL was asked of the young people at seven waves of the BHPS youth panel, namely waves 5, 6, 9, 10, 11, 15 and 18. Since, in addition, children enter and leave the youth panel over time, while some children had multiple responses on this measure, over 40 per cent had only one valid response. In order to maximise the distance between parent and child responses as far as possible, for those 58 per cent who provided a response on more than one occasion we used the latest response. For robustness we also re-estimated the models using the average response (see Online Appendix, Table A3). This did not change our findings. The correlation between the two measures was 0.91 for boys and 0.90 for girls.

For evaluating the influence of young people's gender role attitudes on their adult ASDL we used the same question, which was asked in the *adult* questionnaire at BHPS waves 3, 5, 7, 9, 11, 13, 15 17 and at UKHLS Wave 2 (i.e. BHPS wave 19). For adult behavioural outcomes we used a simple measure of the number of housework hours, derived from the same question used to

construct the parental housework distribution measure (see below). In addition, for women we measure labour market attachment as participation in full-time work (30+ hours per week). Around 63 per cent of daughters in our adult sample were in full-time work, with a sizeable share (18%) in part-time work and a further nine per cent looking after home and family (see Online Appendix, Table A1).

### *Explanatory variables*

Parental attitudes were measured using the same question as for sons' and daughters' ASDL. We primarily used parental responses from during the period that the young person was completing the youth questionnaire, either prior to or concurrent with the child's response. We used the earliest measure of parental ASDL within that period to maximise the gap between the measures of parents' and children's gender role attitudes and reduce issues of reverse causality. In around 90 per cent of cases we were able measure parental ASDL during the period the child responded to the youth questionnaire, and therefore between 0 and 6 years before the young person responded. In the remaining 10 per cent of cases we used earlier parental ASDL, up to a maximum of 14 years before the child's response. We used a single measure of ASDL that met these criteria. The correlation between this single measure of parental ASDL and average responses across all observations was 0.78 for mothers and 0.77 for fathers.

In order to differentiate the separate and combined influence of mothers' and fathers' attitudes, we created a four-fold categorical variable of attitude combinations. This covered whether both parents were "traditional" (0), the mother was traditional and the father was not (1), the father was traditional while the mother was not (2) and neither were traditional (3). Answers were deemed to be "traditional" if the respondent either agreed, strongly agreed or neither agreed or disagreed with the statement. We interpreted this middle response as "traditional", given the strong and explicit nature of the statement. "Non-traditional" responses therefore were in disagreement with the statement. Both parents being non-traditional formed our reference category. By these means we could capture the independent and combined effect of mothers and fathers – ascertaining whether both their attitudes "mattered" and whether they mattered equally for sons and daughters.

Parental behaviour was measured in three ways. First we measured the proportion of the time the mother had spent as a housewife during the period that the young person was observed in the youth questionnaire (% time as a housewife). At each annual interview respondents were asked: “Please look at this card and tell me which best describes your current situation?”, with “looking after family and home” as one of the options. We calculated the proportion of times the mother selected this option out of all the annual observations of her activity status over the period.

Second we measured inequality in the distribution of housework between husbands and wives (housework inequality). Each parent was asked: “About how many hours do you spend on housework in an average week, such as time spent cooking, cleaning and doing the laundry?”. They then provided a number of hours. While this is clearly an estimate, and subject to the limits of self-reporting, it has the advantage that the report is made by each parent about themselves. However it is worth noting that, by giving specific examples of what comprises housework, it may lead to some domestic tasks carried out more by one partner than the other being excluded from estimates. We used the difference between housework hours of mothers and fathers rather than the number of hours contributed by the mother so as not to confound the measure with different tastes for tidiness. Third, we measured whether the mother was in full-time work at the time child’s ASDL was measured. Full-time was measured as 30 or more hours per week.

We additionally included a number of covariates linked to parental attitudes and behaviours. Specifically, we included parental education, the number of children in the family, the presence of children under 5 and the presence of an older sibling. Parental education consistently emerges as a crucial variable influencing children’s social values as well as parental attitudes and behaviours (Davis and Greenstein 2009; Judge and Livingston 2008; Moen et al. 1997). Given the importance of parental education we therefore estimated regression models before and after controlling for it. We used the dominance approach to classifying parental education, i.e. taking whichever was higher of mothers’ or fathers’ highest qualification, and coded to a four-category variable with no qualifications as the reference category. Our results were unchanged by using either fathers’ or mothers’ education instead.

The number of children in the family and whether there is a child aged under 5 are likely to be associated with both mothers’ labour supply and the degree of parental traditionalism, with more traditional couples tending to have larger families. We included a continuous measure of number of children and a dummy for whether there was a child under 5. We also included a

dummy for whether there was an older sibling in the household, since birth order has been linked to differences in attainment and expectations (Booth and Kee, 2009).

As additional controls we included the child's age when their attitudes were measured and the wave in which the measurement took place. We thereby control for any secular changes in attitudes across the period of the study, as well as the patterning of ASDL by age.<sup>6</sup>

Table 1 presents descriptives of all variables for the analytic sample. We see that fathers tend to be more traditional in their attitudes than mothers, and sons than daughters. We also see that there is a substantial level of traditional behaviours: mothers on average spend a third of the secondary school years of their children as a housewife, and, in line with national statistics, fewer than half of them are in full-time work when their children's attitudes are measured. Housework inequality is also evident, with mothers reporting on average 14 more hours of housework than their partners. These variations lead to a range of patterns of attitude and behaviour congruence and incongruence across fathers and mothers, which are broken down in the table. Finally we note that there is a moderate and statistically significant correlation between children's ASDL and the attitudes they hold as adults (around 0.33).

[Table 1 about here]

### *Analytical approach*

We estimated OLS models, regressing children's gender role attitudes on both parental behaviour and parental attitudes, in turn and together, to estimate the associations with parental 'saying' and 'doing'. Our treatment of 'saying' and 'doing' required the assumption that attitudes and behaviours varied across parents, and that they could hold attitudes that were incongruent as well congruent with behaviours. Our model is also predicated on attitudes and behaviours exercising independent effects. The distribution of fathers' and mothers' attitude-behaviour congruence across the three behavioural measures is illustrated in Table 1. We see that, depending on the measure, 37-45 per cent of fathers and 32-47 per cent of mothers had behaviours that were

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<sup>6</sup> The full model with coefficients for all covariates is provided in the Online Appendix (Table 3). Girls' and boys' traditionalism appears to decrease with age, but increase with cohort, net of age. While these findings are intriguing, properly addressing issues of cohort change are beyond the scope of the current paper.

apparently misaligned with their attitudes.<sup>7</sup> In additional analysis we explored the associations between these measures of (incongruence) and children's gender role attitudes (See Online Appendix, tables A2a-A2c). Since that analysis indicated that the relationship between behaviours and attitudes was additive, we retained the current specification.

We then explored if the relationships between parental behaviour and attitudes and child's attitudes was robust to the inclusion of parental education. We estimated separate models for boys and girls in all instances. All analyses controlled for child age and wave and the additional covariates, and were weighted using the cross-sectional weights for the wave at which child's ASDL was measured.

For estimating the effect of sons' and daughters' childhood attitudes on their adult attitudes and behaviour we regressed their adult attitudes, amount of housework and, for women, their labour market attachment (being in full-time work) on their childhood attitudes. Moreover, since we were interested in the enduring impact of childhood attitudes, and disentangling that part which was mediated by adult attitudes, we estimated the impact of childhood ASDL on respondents' adult behaviour net of adult ASDL. This also shed light on the extent to which adult ASDL potentially adapts to circumstances. We controlled for age at the time the outcome was measured and applied the cross-sectional weight for that wave.

We present results for standardized coefficients (Tables 2 and 3). For robustness we also estimated models with unstandardized coefficients, and clustered to adjust standard errors for repeat observations within households. This did not change the findings (See Online Appendix, Table A3). We also estimated the models using ordered logits in place of OLS (see Online Appendix, Table A4). The results were consistent with the findings we present here.

## FINDINGS

Table 2 below shows the results of a series of regression models that estimate the effect of parental variables on children's ASDL. Model 1 tests for the effect of parental *stated* traditionalism as revealed by their own reported ASDL. This model shows that boys are more affected by their

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<sup>7</sup> These percentages are calculated by adding the bottom two rows of each of the Parental ASDL / behaviour congruence measures in Table 1 to get the total incongruence. E.g. 42.0+ 5.4 gives 47 per cent, the upper bound for mothers and 19.0+13.2 gives 32 per cent, the lower bound for mothers.

fathers than by their mothers: fathers' traditionalism influences boys even if mothers are not traditional, while mothers' traditionalism only influences boys if fathers are also traditional. This suggests homolineal transmission is stronger than heterolineal transmission for boys. Girls, on the other hand, seem to be influenced by the traditionalism of both parents to a similar extent —i.e. each parent's level of traditionalism is significantly correlated with girls' ASDL independently. In other words, for girls the homolinearity hypothesis does not seem to hold – but see full model. Model 1 also shows that for both boys and girls the combined effect of mothers and fathers' ASDL is stronger than individual parental effects.

Model 2 tests for behavioural sex-role modelling by introducing information on the housework division of labour between spouses, the proportion of time spent as a housewife by mothers, and whether mother was working full-time. For boys, share of time as a housewife and inequality in the distribution of housework between the parents are both significantly associated with more traditional attitudes, while having a mother in full-time work is associated with less traditional attitudes, albeit only at the 10 per cent level. For girls, mothers' time out of the labour force and, at the 10 per cent level, having a mother in full-time work are significantly associated with their ASDL, but parental housework inequality is not.<sup>8</sup> On the other hand, mothers' time as a housewife seems to have a greater influence on boys' ASDL than the distribution of housework between spouses.

Model 3 combines both stated and enacted parental gender roles. While the picture remains similar, the influence of parental attitudes is reduced. In addition, the size of the effect of having a mother in full-time employment reduces and becomes non-significant. Model 3 allows us to compare the strength of the estimated coefficients for 'saying' and 'doing' mechanisms. We can see that maternal role modelling exerts the strongest influence on girls. The effect of one standard deviation increase in mothers' time out of the labour force has a *larger* impact on daughters' ASDL than the effect of having two parents with traditional attitudes. Maternal role-modelling also exerts a strong influence on sons. Its effect is similar, if slightly smaller in size to that of having two parents with traditional attitudes, and almost twice as large as having only a father with traditional attitudes. These findings suggest that behavioural sex-role modelling is a crucial

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<sup>8</sup>Mothers' time as a housewife seems to exert a somewhat greater influence on daughters' ASDL than on sons', however, we cannot directly compare results across the two models. Additional analysis, pooling boys and girls and interacting sex with the other covariates, does not indicate that the patterns for girls are distinct from those for boys (see Online Appendix, Table 5).

mechanism of gender-role socialization that has independent effects on children's ASDL regardless of parental *stated* attitudes. This is an important finding.

[Table 2 about here]

Model 4 shows that parental education plays an important role in the formation of children's ASDL, though part of this effect is mediated by parents' own attitudes and behaviours, as we would expect (Davis and Pearce 2007). Once we control for parental education, the independent effect of fathers' traditionalism on girls' ASDL is no longer statistically significant. In other words, for the same level of parental education, we find no evidence that girls' ASDL are influenced by their fathers' attitudes alone. Fathers' attitudes only influence daughters' if in line with mothers' attitudes. Conversely boys' attitudes are not independently influenced by their mothers'. The picture is thus one of homolinesal transmission in stated attitudes for both sons and daughters. By contrast, mothers' share of time as a housewife exerts a strong influence on sons' as well as daughters' ASDL, regardless of parental education. Housework inequality only influences boys –though of course in this they could be influenced by their father's approach to housework as much as their mothers'.

Figures 1 and 2 illustrate the effects of both parental attitudes and parental behaviour (measured as the % mothers' time as a housewife) on their sons' and daughters' ASDL. Though the effects are modest, the patterns, and the relative weight of attitudes and behaviour, are clear.

[Figures 1 and 2 about here]

We also explored the patterns in lone parent families to ascertain if mothers have a greater influence on their sons in the absence of a father (see Online Appendix, Table A6). The findings again indicate that mothers' attitudes influence their daughters but not their sons. We also found that mothers' share of time out of the labour market influenced sons' but not daughters' attitudes. Daughters (but not sons) were less traditional the more housework their (lone) mothers did. It is likely that the dynamics around care, work and gender roles play out rather differently in lone parent families, a question that merits further separate investigation.



### *The long-term consequences of early ASDL*

So far we have provided strong evidence of both attitudinal and behavioural transmission of ASDL between parents and children. But this leads to an obvious question: does early transmission of ASDL influence children's attitudes and behaviours in adult life? The answer is not obvious, particularly since gender role attitudes have undergone rapid transformation during the observation window at the societal level. This could make children's early ASDL particularly volatile and inconsequential for adult life (see Min et al. 2012).

We follow a subsample of 630 children into their early adulthood (defined as aged over 21). We test whether early ASDL are significantly associated with both *stated* and *enacted* gender roles in adult life. Stated attitudes are measured using the same variable as for the earlier analysis, i.e. ASDL; while enacted gender roles using are measured using the following two indicators: 1) the hours of housework respondents do;<sup>9</sup> and 2), for women respondents only, also their labour market attachment (measured as participation in full-time work). Results are presented in Table 3, with sons' adult outcomes in the top panel and daughters' adult outcomes in the bottom panel.

[Table 3 about here]

Our findings show, in line with the correlations in Table 1, that children with more traditional ASDL in early adolescence are more likely to hold traditional attitudes later in life (see model 1, Table 3). In addition, for women, both their childhood attitudes and their adult attitudes are associated with their subsequent behaviour, whether we look at housework or labour market attachment; while for men, it is only their childhood attitudes that are significantly associated with

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<sup>9</sup> Ideally, we would have liked to measure housework inequality in couples rather than the individual supply of housework. But three-quarters of respondents in our subsample have not formed cohabiting couples yet. Moreover, we can only identify 62 men and 91 women in our adult sample who are married or cohabiting *and* for whom we have information on their partners. Those who have entered cohabiting relationships by a relatively early age will, anyway, tend to be a selected sample, since the very decision to form a cohabiting couple is likely to be endogenous to respondents' attitudes and behaviours (Cunningham et al. 2005). Future waves of the UKHLS will allow us to follow these children further into their adult lives.

their adult supply of housework. This may suggest developing inconsistency between men's stated attitudes and behaviour that we can trace back to early socialization processes. Such inconsistency is likely to have implications for the persistence of gendered inequalities in paid and unpaid work, even in the face of increasing expressed egalitarianism. We are also able to show that the influence of childhood ASDL is not fully mediated by adult ASDL for women.

These findings are consistent with our theoretical contention concerning the significance of early (primary) socialisation and with the assumption of transmission models: early influences of parental attitudes and behaviours have later consequences for sons' and daughters' own attitudes and behaviours. Socialisation is consequential. However, given the wider context for the expression of egalitarian attitudes, and the substantial degree of observed misaligned attitudes and behaviours, we would not expect the influence of early attitudes on later attitudes to be the sole (or even the main) route by which childhood socialisation influences subsequent gendered behaviour. Among women, we also see some independent role for adult attitudes on behaviours over and above the influence of childhood socialisation. Childhood socialisation and adult adaptation – or life course socialisation – would therefore both seem to be associated with daughters' behaviours in adult life, within the limitations of our measures. The fact that women's adult attitudes (net of childhood attitudes) show more consistency with their adult behaviours than those of men accords with existing work demonstrating how women modify their attitudes to align with their circumstances (Baxter et al. 2015; Corrigall and Konrad 2007; Cunningham et al. 2005; Moen et al. 1997).<sup>10</sup> At the same time, we are able to add to such work, by showing the persisting influence of early socialization processes (see also Cunningham 2008; Moen et al. 1997). These findings provide significant evidence that the mechanisms involved in early transmission of ASDL have long-term consequences and hence play a crucial role in the process of cultural reproduction.

## DISCUSSION AND CONCLUSIONS

This study has a number of implications for both theory and research. First, we show that both parental attitudes and parental behaviours exert an independent socializing influence on children's

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<sup>10</sup> Even if our sample of parents (in couples) showed that mothers and fathers had similar levels of attitude-behaviour incongruence, this does not imply that we would expect comparably similar levels of attitude-behaviour incongruence among their sons and daughters as they follow their own pathways through adult life in terms of relationship and family formation.

preference formation. While this finding is hardly news for sociological research (see e.g. Cunningham 2001a; 2001b; Hitlin 2006) we have stressed the importance of conceptualizing behavioural and attitudinal sex-role transmission as two distinctive modes of cultural reproduction in the current societal context, which is characterized by sizeable incongruence between sex-role attitudes and behaviours. In this context, the question of what matters most, parental attitudes or parental behaviours, acquires special sociological relevance. Our study suggests that behaviours, particularly mothers' time as a housewife, could be more important than parental attitudes in the formation of adolescents' ASDL. This finding also has implications for cultural transmission models employed by economists. In light of our findings, the assumption of intentional transmission should be revised because children appear also to learn from unintentional gender displays.

Second, although most previous literature on the transmission of gender attitudes has disproportionately focused on mother-children transmission, our research shows that what fathers do as well as what they say also matter a great deal in the process of preference formation, particularly for boys. These findings highlight an obvious but often neglected point: fathers and sons matter in the cultural transmission of gender attitudes, with consequences not only for the division of labour within their families, but also for subsequent generations.

Third, we find that transmission channels are sex-specific: fathers' attitudes affect sons (regardless of mothers' attitudes) but only influence daughters if in line with mothers'; while mothers' attitudes affect daughters (regardless of fathers') but only influence sons if in line with fathers' attitudes. We also explored whether mothers' attitudes were a greater influence on sons in lone mother households. We found this not to be the case, but mothers' share of time as a housewife continued to be influential. The way in which the dynamics of paid and unpaid work, and their role in influencing children's attitude formation, play out in lone parent families deserves, however, further dedicated study.

Finally, we confirmed that attitudes formed in childhood, summarised using prospective measures that are not confounded by adaptation to partnership or labour market context, do persist into adult life and have measurable consequences for behaviours. We have thus shown how intergenerational transmission of spoken and enacted gender roles has the potential to impact gender relations in adults' lives and is likely to be part of the cause of persistent inequalities in paid and unpaid work. Following sons and daughters further into adulthood and identifying the

pathways for both the retention and adaptation of gender role attitudes will be a valuable future extension of these findings.

In sum, we have argued, as well as shown, that investigating intergenerational gender-role transmission in a world of increasingly incongruent gender roles requires addressing both active (saying) and passive (doing) forms of gender-role enactment. Considering these two paths as distinctive routes of cultural transmission sheds light on gender socialization research. Moreover, we have demonstrated the role of the intergenerational transmission of attitudes and thereby behaviour in contributing to the persistence of gendered inequalities in paid and unpaid work over time.

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## TABLES AND FIGURES

### Tables

Table 1. Descriptive statistics of estimation samples

	Mean / proportion	Min	Max	SD
<i>Variables measured in sons' and daughters' youth (aged 11-15): N=2859</i>				
Child ASDL	-0.75	-2	2	1.16
Boy	-0.46	-2	2	1.17
Girl	-1.06	-2	2	1.06
Parental traditional ASDL				
Both traditional	20.4			
Mother trad, father not	14.0			
Father trad, mother not	22.6			
Both non-traditional	43.0			
Average share of child's youth mother spent as 'housewife'	0.20	0	1	0.34
Mother in full-time work at time child's ASDL measured	0.28	0	1	0.45
Housework inequality (hours)	14.6	-30.5	75.0	12.3
<i>Parental ASDL / behaviour congruence*</i>				
Mothers' congruence of ASDL with full-time work				
Mother consistent traditional	29.6			
Mother consistent non-traditional	23.0			
Mother trad ASDL non-trad behaviour	5.4			
Mother non-trad ASDL trad behaviour	42.0			
Mothers' congruence of ASDL with % time housewife				
Mother consistent traditional	16.0			
Mother consistent non-traditional	51.8			
Mother trad ASDL non-trad behaviour	19.0			
Mother non-trad ASDL trad behaviour	13.2			
Mothers' congruence of ASDL with housework inequality				
Mother consistent traditional	18.5			
Mother consistent non-traditional	40.0			
Mother trad ASDL non-trad behaviour	16.5			
Mother non-trad ASDL trad behaviour	25.0			
Fathers' congruence of ASDL with mothers' ft work				
Father trad ASDL mother trad behaviour	35.1			
Father non-trad ASDL mother non-trad behaviour	20.3			
Father trad ASDL mother non-trad behaviour	8.0			
Father non-trad ASDL mother trad behaviour	36.6			
Fathers' congruence of ASDL with mothers' % time housewife				
Father trad ASDL mother trad behaviour	17.5			

Father non-trad ASDL mother non-trad behaviour	45.2			
Father trad ASDL mother non-trad behaviour	25.6			
Father non-trad ASDL mother trad behaviour	11.7			
Fathers' congruence of ASDL with mothers' housework inequality				
Father trad ASDL mother trad behaviour	23.6			
Father non-trad ASDL mother non-trad behaviour	36.9			
Father trad ASDL mother non-trad behaviour	19.6			
Father non-trad ASDL mother trad behaviour	19.9			
<i>Highest parental qualification</i>				
University	20.3			
A' levels or equivalent (age 18)	35.1			
GCSEs or equivalent (age 16)	34.5			
Less or none	10.1			
Survey wave child's ASDL measured	12.8	5	18	4.2
Age of child when ASDL measured	13.7	11	16	1.3
Number of siblings	1.1	0	7	1.0
Whether sibling under 5 in household	0.07	0	1	0.25
Whether older siblings in household	0.12	0.33	0	1
<i>Variables measured in sons' and daughters' adulthood (aged &gt;21): N=630</i>				
<i>N=328 for daughters and N=302 for sons</i>				
Sons' and daughters' adult ASDL	-0.99	-2	2	1.03
Son	-0.87	-2	2	1.05
Daughter	-1.12	-2	2	0.99
Sons' / daughters' total adult housework hours	6.6	0	84	6.7
Age when adult ASDL measured	25.1	22	30	2.5
Daughters' ft labour market participation	0.58	0	1	0.49
<i>Correlation between sons' / daughters' childhood and adult ASDL:</i>				
<i>N=630</i>				
<i>Sons: N=302; Daughters: N=328</i>				
	Correlation coefficient			Sig
All sons and daughters	0.30			0.000
Sons' attitudes	0.33			0.000
Daughters' attitudes	0.33			0.000

Notes: Weighted statistics; unweighted counts. \* To construct these measures, attitudes are assigned traditional or non-traditional as in the main measures. Behaviours are considered traditional if: a) mother not in full-time work, b) mother spent more than mean time as a housewife, c) housework inequality between mother and father is more than the mean, and are deemed non-traditional otherwise.

Table 2. The influences of parental attitudes and behaviour on children's ASDL, standardized coefficients from OLS models (*t* statistics)

	1) Parent ASDL		2) Parent behaviour		3) Combined		4) +Parental Education	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
<i>Parent traditionalism (Ref.=both non-traditional)</i>								
Both traditional	0.191 <sup>***</sup>	0.170 <sup>***</sup>			0.134 <sup>***</sup>	0.097 <sup>**</sup>	0.114 <sup>***</sup>	0.072 <sup>*</sup>
	(6.45)	(5.23)			(4.24)	(2.76)	(3.63)	(2.14)
Mother trad, father non-trad	0.021	0.095 <sup>**</sup>			0.003	0.065 <sup>*</sup>	0.004	0.059 <sup>*</sup>
	(0.75)	(3.27)			(0.11)	(2.26)	(0.14)	(2.08)
Father trad, mother non-trad	0.092 <sup>**</sup>	0.089 <sup>**</sup>			0.072 <sup>*</sup>	0.054 <sup>+</sup>	0.059 <sup>*</sup>	0.043
	(3.09)	(3.11)			(2.39)	(1.84)	(1.98)	(1.47)
Mother in full-time work			-0.059 <sup>*</sup>	-0.046 <sup>+</sup>	-0.041	-0.031	-0.031	-0.033
			(-2.01)	(-1.67)	(-1.39)	(-1.13)	(-1.09)	(-1.24)
% period mother is housewife			0.142 <sup>***</sup>	0.197 <sup>***</sup>	0.125 <sup>***</sup>	0.175 <sup>***</sup>	0.102 <sup>**</sup>	0.141 <sup>***</sup>
			(4.51)	(5.57)	(3.88)	(4.85)	(3.15)	(4.04)
Housework inequality			0.087 <sup>**</sup>	0.044	0.070 <sup>*</sup>	0.032	0.075 <sup>*</sup>	0.026
			(2.71)	(1.11)	(2.21)	(0.78)	(2.37)	(0.72)
<i>Parental highest education (Ref.=none)</i>								
University							-0.244 <sup>***</sup>	-0.276 <sup>***</sup>
							(-5.47)	(-6.10)
A' levels (age 18)							-0.215 <sup>***</sup>	-0.206 <sup>***</sup>
							(-4.45)	(-3.87)
GCSE (age 16)							-0.223 <sup>***</sup>	-0.211 <sup>***</sup>
							(-4.72)	(-3.99)
Observations	1472	1387	1472	1387	1472	1387	1472	1387
Adjusted $R^2$	0.074	0.113	0.087	0.137	0.101	0.143	0.121	0.173

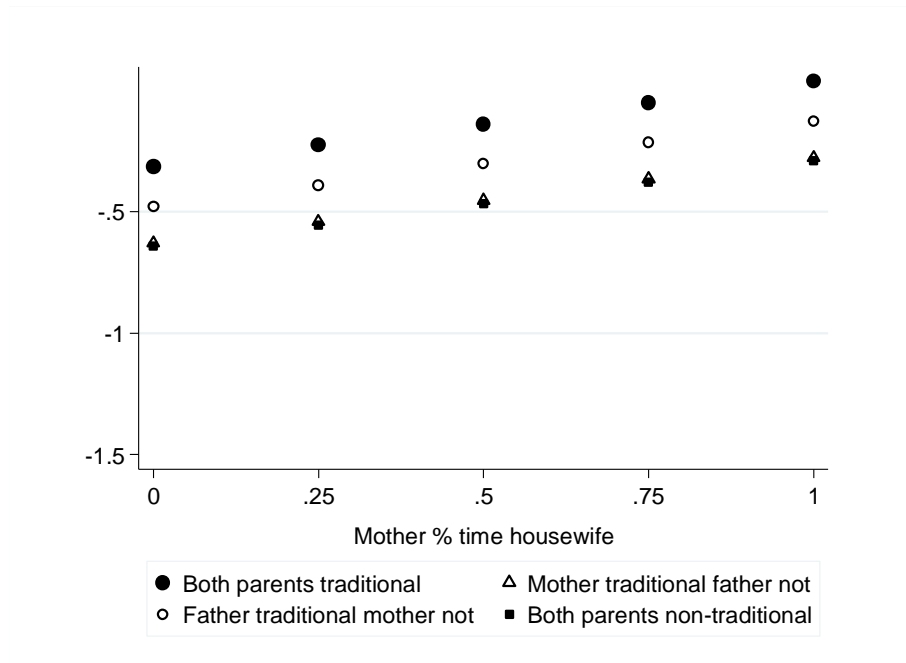
Notes: Standardized beta coefficients; *t* statistics in parentheses. Models also include survey wave, age (when ASDL measured) older and younger siblings and presence of a child under 5 in the household. Data are weighted using the cross-sectional weight for the wave at which the outcome was measured. <sup>+</sup>  $p < 0.10$ , <sup>\*</sup>  $p < 0.05$ , <sup>\*\*</sup>  $p < 0.01$ , <sup>\*\*\*</sup>  $p < 0.001$

Table 3. Sons' and daughters' attitudes as children and adults and their association with adult attitudes and behaviours at age 22-30, estimates from regressions on adult ASDL and behaviours

<b>Panel A: Sons</b>						
	(1)	(2)	(3)	(4)		
	Adult ASDL	Adult housework	Adult housework	Adult housework		
Child ASDL	0.329*** (6.08)		-0.139* (-2.44)	-0.129* (-2.12)		
Adult ASDL		-0.075 (-1.30)		-0.032 (-0.53)		
Observations	302	302	302	302		
Adjusted $R^2$	0.117	0.004	0.018	0.016		
<b>Panel B: Daughters</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
	Adult ASDL	Adult housework	Adult housework	Adult housework	Adult FT work	Adult FT work
Child ASDL	0.216*** (3.96)		0.166** (3.00)	0.122* (2.19)	-0.137* (-2.46)	-0.104 <sup>+</sup> (-1.85)
Adult ASDL		0.229*** (4.26)		0.203*** (3.71)		-0.149** (-2.67)
Observations	328	328	328	328	328	328
Adjusted $R^2$	0.042	0.052	0.026	0.063	0.013	0.031

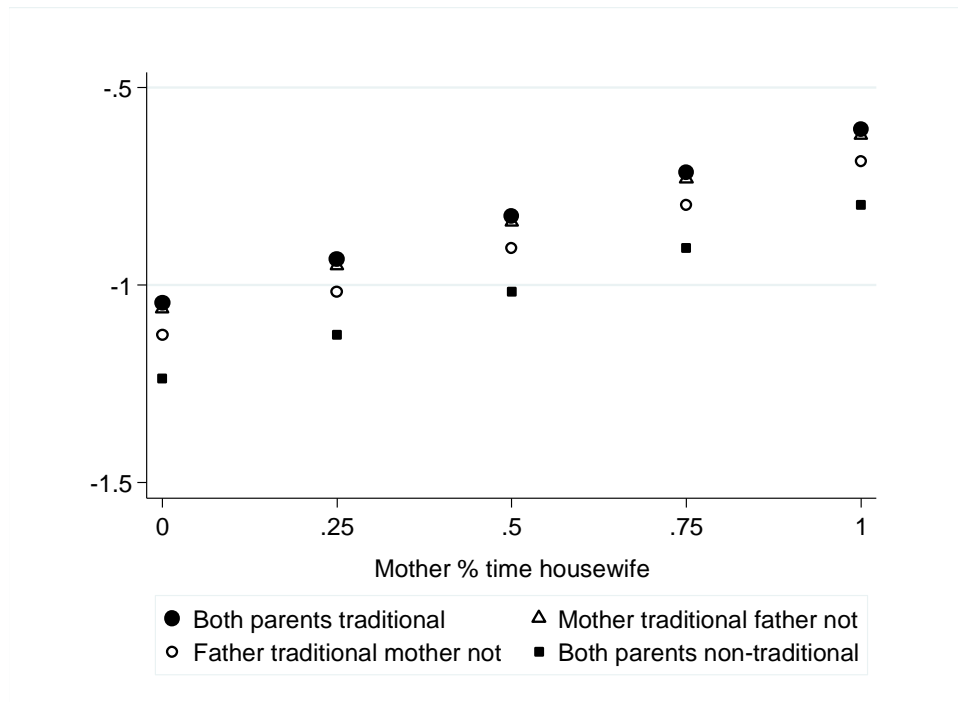
Notes: Standardized beta coefficients;  $t$  statistics in parentheses, <sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$   
 All models control for respondent's age at the time the outcome was measured. All models weighted using the cross-sectional weights for the wave at which the outcome was measured.

**FIGURES**



**Figure 1: Relationship between parental ASDL and sons' ASDL at different values of % time mother spent as a housewife, estimates from OLS regression model**

Notes: child ASDL measured on a scale from -2 (non-traditional) to +2 (traditional)



**Figure 2: Relationship between parental ASDL and daughters' ASDL at different values of % time mother spent as a housewife, estimates from OLS regression model**

Notes: child ASDL measured on a scale from -2 (non-traditional) to +2 (traditional)