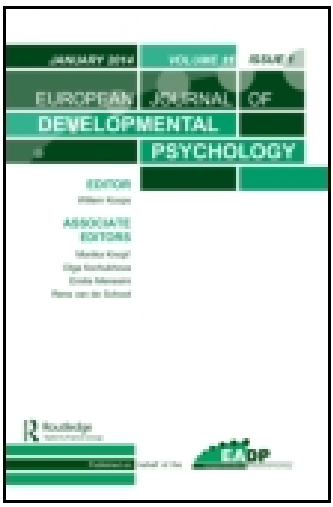

European Journal of Developmental Psychology

Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/pedp20

Gender-specific macro- and micro-level processes in the transmission of gender role orientation in adolescence: The role of fathers

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Published online: 24 Jan 2014.

To cite this article: Markus Hess, Angela Ittel & Aiden Sisler (2014) Gender-specific macro- and micro-level processes in the transmission of gender role orientation in adolescence: The role of fathers, European Journal of Developmental Psychology, 11:2, 211-226, DOI: 10.1080/17405629.2013.879055

To link to this article: http://dx.doi.org/10.1080/17405629.2013.879055

EUROPEAN JOURNAL OF DEVELOPMENTAL PSYCHOLOGY, 2014
Vol. 11, No. 2, 211–226, http://dx.doi.org/10.1080/17405629.2013.879055

Gender-specific macro- and micro-level processes in the transmission of gender role orientation in adolescence: The role of fathers

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Family represents a primary environment for the development and transmission of gender role orientation (GRO) in adolescence. Nonetheless, longitudinal approaches delineating the separate influences of fathers and mothers, including all possible same- and cross-sex parent–child dyads within one family are lacking. This article elucidates the process of adolescent gender role socialization in 244 German families (father, mother, son and daughter) utilizing a longitudinal design (two measurement points over 5 years). Direct transmission paths of GRO and gender-specific parenting (GSP) as a mediator were analysed focusing on fathers' contributions. In addition, the impact of parental workplace autonomy and socio-economic status on intra-familial socialization of GRO was examined. Results indicate that fathers and mothers play at least an equally important role in the transmission of gender role beliefs. A mediating effect of GSP was only evident when considering father–child dyads. Based on social cognitive and developmental systems approaches, the findings are discussed considering adolescents embedded within the family context.

Keywords: Gender role orientation; Transmission; Adolescence; Fathers; Socialization.

Understanding how an individual's gender role orientation (GRO) is formed within a family aids in shedding light on future social adjustment and development (Davis & Greenstein, 2009). In this study, we target GRO which reflects the level

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We want to explicitly thank the Deutsche Forschungsgemeinschaft (DFG) for supporting this project as well as our valued colleagues Hans Merkens, Poldi Kuhl, Tina Kretschmer and Susanne Bergann.

of agreement with cultural expectations concerning gender-related behaviour and the distribution of labour between the sexes (Galambos, 2004). Despite the growing influence by peers, teachers and the media (Martin, Wood, & Little, 1990), the family continues to be an important environment in the formation and transmission of GRO during adolescence (Carlson & Knoester, 2011).

Nevertheless, longitudinal studies illuminating the gender-specific influence of mothers and fathers on their adolescent offspring in a within-family design, thus appraising the family as a whole unit, are lacking. This article puts forth a differentiated model of GRO development by considering potential influencing factors based on two ecological levels of family socialization. As most studies have focused on maternal contributions, this study aims to elucidate paternal influence in the process of GRO formation (Davis & Wills, 2010).

Gender role transmission within families

Parents' attitudes and behaviours concerning gender are precursors in children's gender development (Ruble, Martin, & Berenbaum, 2006); GRO of parents and their offspring are often linked (e.g., Tenenbaum & Leaper, 2002). Relating a developmental systems approach highlighting the socio-environmental context and emphasizing the transactional nature of the person-environment interrelation to the transmission of GRO (Lerner, Rothbaum, Boulos, & Castellino, 2002) implies that adolescents' bring in their individual-level attributes to the transmission process and react differentially to parental behaviour (Scheithauer, Niebank, & Ittel, 2009). In addition, from a social cognitive and learning perspective, parental influence may be exerted through modelling processes (Bussey & Bandura, 1999) and direct parenting practices (McHale, Crouter, & Whiteman, 2003). In the present study, modelling processes are reflected by similarities in GRO between parents and their offspring (attitudinal parameter) and parenting practices through adolescents' gender-specific parenting (GSP) experiences (behavioural parameter).

A traditional GRO reflects a gendered orientation towards the distribution of labour, whereby women do housework and provide childcare and men are responsible for providing economic resources. This labour distribution is considered more favourable for men since social reputation is tied to occupational status. Indeed, male privilege and dominance intrinsic to patriarchal systems continue to be reflected in more traditional gender role attitudes by males than by females (Burt & Scott, 2002; Zuo & Tang, 2000). On a societal level, these beliefs are challenged by gender mainstreaming and equality efforts in professional settings, and further reflected in mothers' labour force participation and the growing amount of time fathers devote to childcare (Bianchi & Milkie, 2010).

From a developmental systems perspective, it is tenable that daughters—seen as active agents of their development—will be especially prone to challenging traditional GRO and therefore hold the lowest level of traditional GRO, and sons

will exhibit the most traditional GRO in an attempt to maintain their status advantage (Sidanius & Pratto, 2001). In accordance with gender intensification theory, which holds that the tendency to adhere to traditional gender roles intensifies in adolescence (Priess, Lindberg, & Hide, 2009), we postulate that boys' traditional GRO will be more exaggerated than girls (e.g., Jackson & Tein, 1998).

Referring to assumptions proposed by the social cognitive theory of gender development (Bussey & Bandura, 1999) and the sex role model (Acock & Bengston, 1978), we hypothesize that parental GRO is reflected in parents' behaviour observed by their children. In addition, when both parents are present, children tend to use the same-sex parent as the focal model (Bussey & Bandura, 1999). Therefore, we speculate that same-sex intergenerational similarities in GRO are greater than cross-sex similarities.

Parents' differential treatment of boys and girls when rewarding behaviour assists in shaping children's gendered behaviour and attitudes (Mischel & Liebert, 1966). This gender-specific parenting (GSP) is believed to reflect parents' underpinning GRO. While egalitarian mothers tend to have less traditional gender-role stereotyped offspring (Myers & Booth, 2002), the relative impact of parental modeling, practices and gendered ideology is difficult to disentangle (Davis & Wills, 2010). Studies on GSP have found that parents more often foster independence in boys, whereas girls are raised to be dependent (Leaper & Friedman, 2007). Previous literature equivocates, however, on the degree to which gender differences operate in other parent–child interactions considering the whole family system (e.g., Lytton & Romney, 1991). Disparities were cited in the reinforcement of gender-typed activities but were absent in other realms. Moreover, fathers were instrumental in gender socialization with sons in particular, although, again, between-family findings could not account for interactive value transmission (Lytton & Romney, 1991).

One conceptual and methodological shortcoming in addressing intra-familial transmission of GRO regards the confounding of between and within effects. Only the comparison of fathers, mothers and offspring of different sexes simultaneously within one family allows for reliable gender-specific intra-familial analyses (McHale et al., 2003). In order to illuminate gender-specific processes in transmission and possible sex variances in GRO similarities, we incorporated different micro- (parenting style and GRO congruence) and macro-level (parental workplace) factors into our within family analysis.

Micro-level factors in GRO transmission

Ecological theory (Bronfenbrenner, 1979) privileges multiple interacting systems regarding influences on the nested individuals' attitudes and behaviour. Within the most proximal micro-system, an individual's daily life setting (home), roles, relationships and daily activities are deemed to be critical elements in gender development (Stevenson, 1991). A number of studies detected significant

correlations in the mother–daughter relationship concerning measures of attitudes regarding the role of females in society, GRO and over-arching gender role beliefs (e.g., Ex & Janssens, 1998). These findings were interpreted such that same sex homogeneity was particularly salient in the transmission of GRO between parents and children as predicted by social learning theory (Bussey & Bandura, 1999).

A more complex picture emerges when appraising the few studies which included parent–child dyads other than mother–daughter pairs. Thornton, Alwin, and Camburn (1983) found similar associations of GRO between mothers and children of both sexes over time. Other cross-sectional studies have found significant correlations in all possible dyads even detecting a stronger father–child than mother–child GRO link (Kulik, 2002; O'Bryan, Fishbein, & Ritchey, 2004). Burt and Scott (2002) further concluded that same-sex associations of GRO are generally not stronger than cross-sex associations. A meta-analysis conducted by Fishbein (2002) highlighted the significant role of mothers and the important—albeit often neglected—contribution of fathers in inter-generational transmission.

Targeting a unique sample through the use of an apposite whole family design, the present research addresses two questions at the micro-level concerning the role of GSP. First, we investigate whether sons and daughters experience differential parenting within a family system and, additionally, if GSP mediates the direct relation between parent and offspring GRO concordance rates considering select macro-level variables.

Macro-level factors in GRO transmission

Macro-level factors reflect processes that stem from extra-familial contexts, such as workplace conditions and social economic status (Bianchi & Milkie, 2010). With regard to power-control theory developed by Hagan, Simpson, and Gillis (1987), we hypothesize that working conditions, namely the degree of parental workplace autonomy (WPA), rather than occupation itself contribute to the interfamilial transmission of GRO. In families where fathers hold autonomous and dominant positions at the workplace, traditional gender roles and GSP will be maintained, whereas in families where mothers experience autonomous workplace conditions traditional GRO will likely be challenged (Cleveland, Stockdale, Murphy, & Gutek, 2000).

Earlier studies offer evidence that higher levels of parental education and income correspond to more egalitarian attitudes regarding gender role attitudes (e.g., Kulik, 2002). We therefore expected that high familial socio-economic status (SES) [combining educational level and family income, Mueller and Parcel (1981)] corresponds with low overall adherence to traditional GRO.

It is worth bearing in mind that the directionality of socio-contextual factors and the individual-level factor of gender ideology is as of yet inconclusive; those

individuals with egalitarian GRO may be more likely to occupy positions in egalitarian environments which may then interact in a mutually supportive process. Evidence pointing in this direction was provided by Sidanius and Pratto (2001) with the related construct of social dominance orientation. We do not speculate at length regarding the directionality of GRO and occupational choice gleaned from longitudinal analyses as it is outside the scope of this report, although we do acknowledge its future importance.

Figure 1 provides a graphical summary of the hypotheses of the present study. On the macro-level, it is expected that high SES is associated with more egalitarian parental GRO. It is assumed that fathers' high WPA corresponds with more traditional GRO particularly when mothers' WPA is low. Mothers' high WPA is believed to correspond with more egalitarian GRO independent of fathers' degree of WPA. On the micro-level, GSP is expected to mediate the relation between parental and offspring GRO. Moreover, parental GRO is proposed to be transmitted to adolescent children in a direct manner, with same-sex transmission paths expected to be stronger than cross-sex paths.

METHOD

Sample

Data stem from a longitudinal questionnaire study conducted in Berlin, Germany with two measurement points (1999, 2004). Only families consisting of a father, a

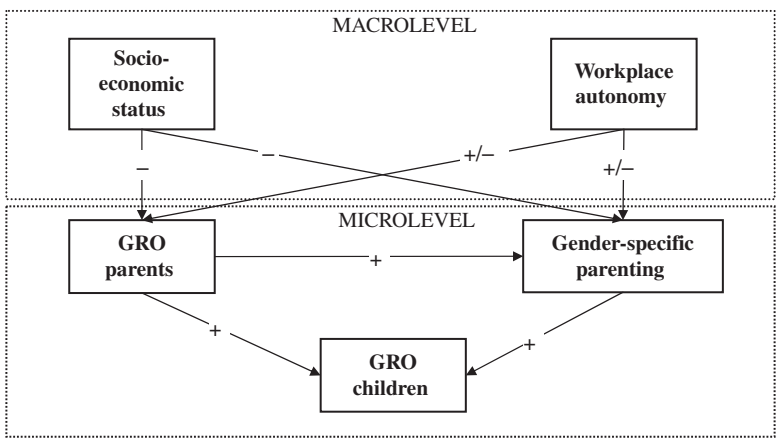

Figure 1. Research model describing potential influences on the parent–child transmission of traditional GRO. *Notes:* A plus sign indicates an enhancing influence and a minus sign a reducing effect. The combined plus and minus signs divided by a slash reflect gender-specific assumptions concerning the influence of workplace authority (minus signs hold for mothers and plus signs hold for fathers). GRO, traditional gender role orientation.

mother[1] and an adolescent son and daughter qualified to participate in order to examine the distinct dyadic gender combinations. At the first measurement point, 504 complete family tetrads were included. Five years later, 244 families were recruited (48.4%). The high dropout rate is likely due to the long time span between measurements (5 years), low direct participant contact due to the postal survey design, and only families who provided full data for all four members were considered for the final sample. Therefore, we consider the drop out as missing at random (Rubin, 1976). Data were only available for the longitudinal sample, so comparison between those who remained in the sample and those who dropped out after time 1 was not possible. The present sample has a mean age of 14.12 years [standard deviation (SD) = 2.40] for sons and 14.37 years (SD = 2.14) for daughters at the first measurement point. Age of parents was not measured in the survey, and 12 children (4.5%) lived with at least one step-parent. As the number of step-parents is rather low in the sample, no further analyses including this variable were conducted. SES was rather homogenous. Parents were generally highly educated with an average of 11.4 years of education for mothers and 11.52 years for fathers; few parents completed less than 10 years of school (2.6% of mothers and 5.8% of fathers). Most fathers (92.0%) and mothers (77.9%) were employed, and 69.3% of the families had no additional children other than the son and the daughter who participated in the study. The remaining families had three to five children with three children for 21.9% of families, four children for 4.2% and five children for 3.1% of families.

Procedure

Data were gathered from 58 schools in Berlin, Germany. A preliminary screening was conducted to select grade 7–10 adolescents who fulfilled the participatory requirements (i.e., living with both parents and with one opposite-sex adolescent sibling in the same household). Following active parental consent for participation in the study of the selected adolescents, trained researchers administered the standardised questionnaire to the children. Parents and siblings were asked to send their questionnaire in a pre-stamped envelope. For the secondary data collection, families were once again contacted through the participating adolescent at school or—when participants had left the school—via mail. A lottery for minor incentives was held among the participants.

[1]In order to be allowed to participate, the father and mother had to live with the participating adolescents but were not required to be a biological parent.

Measures

Dependent/moderator variables

Traditional GRO. We used four items from a German version of a scale (Krampen, 1983) concerning traditional gender-typed expectations of labour participation and power division. All four family members indicated the extent to which they agreed with statements, such as "Women should enter traditionally masculine professions like brick layer or pilot more often" on a scale from 1 ("strong disagreement") to 5 ("strong agreement"). High mean scores on this scale designate strong agreement to traditional gender roles. Parents' GRO at the first time point and children's GRO at the second time point were included in the analysis. Cronbach's α for this scale indicated sufficient internal consistency for the purpose of the present study ($\alpha_{\text{mothers}} = .67$; $\alpha_{\text{fathers}} = .74$; $\alpha_{\text{sons}} = .81$; $\alpha_{\text{daughters}} = .61$).

Independent variables

Microlevel. GSP. At the second time point, a 4-item subscale measuring GSP was included (Hoffman & Kloska, 1995). Items were modified such that children answered questions about their mother's and father's parenting separately. Sample items include "For my mother/father it was more important to raise a son to be strong and independent than to raise a daughter (to be strong and independent)" and "My mother/father saw nothing wrong with giving a boy a doll to play with". Agreement with the statements was measured on a five-point Likert scale. Due to high correlations of ratings provided by one adolescent ($r_{\text{son}} = .91$ and $r_{\text{daughter}} = .85$, respectively), ratings were summarized into one index of parental GSP per adolescent. Despite Cronbach's α ranged from .53 to .61, we opted to include these scales due to the study's broad operationalization of GSP; GSP represents a heterogeneous construct which often goes along with relatively low reliability ratings (Streiner, 2003).

Macrolevel. WPA. Both parents' WPA was assessed through six questions based on Hagan, Boehnke, and Merkens (2004). Sample items included, "Do you give advice to other co-workers?" or "Do you carry out instructions from other co-workers?" in a dichotomous answer format (1 = "no"; 2 = "yes"). After necessary re-coding, a mean sum score was then calculated with high scores indicating high levels of WPA. For the present paper, parental ratings of time 1 are included in the analysis.

SES. Familial SES was measured at time 1 by averaging standardized mothers' and fathers' ratings of educational level (in years) and family income per month (in Euros).

TABLE 1
Study descriptives

	Male participants		*Female participants*		
Variable	*M*	*SD*	*M*	*SD*	*t*
Microlevel					
GRO-C (1–5)	2.08	0.88	1.40	0.49	11.87***
GRO-P (1–5)	1.70	0.75	1.47	0.57	4.58***
GSP (1–5)	1.74	0.30	1.51	0.58	4.80***
Macrolevel					
WPA (0–1)	0.51	0.30	0.38	0.26	5.41***
SES (1–7)	4.59	1.27	4.59	1.27	–

Notes: SES, socio-economic status; GSP, gender-specific parenting; GRO, traditional gender role orientation; WPA, workplace autonomy; C, child; P, parent. ***$p < .001$.

RESULTS

Table 1 provides an overview of relevant descriptive statistics. Male participants (sons and fathers) display higher traditional GRO than their female counterparts. In addition, sons perceive more gender-specific child rearing by their parents than daughters. Fathers indicated higher WPA than mothers.

Bivariate correlations between all study variables were conducted (Table 2) and missing data were replaced with maximum-likelihood estimations. GROs of all family members were positively correlated. In addition, no significant differences concerning the bivariate correlations between the generations or

TABLE 2
Bivariate correlations of the study variables (correlations of the measurement models, maximum-likelihood estimation, $N = 244$)

	01.	*02.*	*03.*	*04.*	*05.*	*06.*	*07.*	*08.*
Microlevel								
01. GRO-S (2)	–							
02. GRO-D (2)	.41***	–						
03. GRO-F (1)	.54***	.36***	–					
04. GRO-M (1)	.34***	.44***	.41***	–				
05. GSP-S (2)	.75***	.04 ns	.32***	.13 ns	–			
06. GSP-D (2)	.26**	.41***	.38***	.13 ns	.38***	–		
Macrolevel								
07. WPA-F (1)	.06 ns	−.04 ns	.05 ns	.16^{+}	.10 ns	.00 ns	–	
08. WPA-M (1)	.00 ns	−.01 ns	.03 ns	.02 ns	−.05 ns	.00 ns	.21**	–
09. SES (1)	−.25**	−.21*	−.16*	−.27**	−.44***	−.26**	.23**	.23**

Notes: GRO, traditional gender role orientation; GSP, gender-specific parenting; FSC, family sense of coherence; SES, socio-economic status; WPA, workplace autonomy; M, mother; F, father; S, son; D, daughter; timepoint in parentheses; ns, not significant. $^{+}p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$.

between the sexes were found (applying Fisher's *z*-values). In examination of the relation between GROs of parents and the ratings of GSP as experienced by the adolescents, results illustrate that only fathers' GRO was associated with GSP practices for both sons and daughters ($r_{son} = .32$, $p < .001$ and $r_{daughter} = .38$, $p < 001$). For mothers, no significant correlation was detected ($r_{son} = .13$, ns and $r_{daughter} = .13$, ns). We attend to this unexpected finding in the "Discussion" section. Additional variables not depicted in Table 2, such as age of the adolescents and total number of siblings in the family, did not correlate significantly with intra-familiar GRO or parenting practices, therefore they were not considered in further analyses.

No significant relationships between the WPA of mothers and fathers or the micro-level variables were identified. The link between SES, representing another macro-level factor, and the micro-level factors of GRO and GSP confirmed initial expectations. Members of families with a high SES showed more egalitarian GRO and less GSP than members of families with lower SES status.

To test the associations between macro-level and micro-level factors in the transmission of GRO within families on a multivariate level, we conducted several structural equation models (SEM) using AMOS 5. Before running the overall structural models, we separately tested the goodness of fit for the measurement models of GRO and GSP. These analyses revealed sufficient fitting indices for all measurement models with root mean square error of approximation (RMSEA) between .00 and .08 and comparative fit index (CFI) between 1.00 and .97 (Bentler, 1990).

In the initial SEM, similarity between parental GRO at time 1 and their children's GRO at time 2 was examined. As seen in Figure 2, results revealed a strong same-sex connection for father–son and mother–daughter dyad. Moreover, data revealed a significant relation between fathers' and daughters' GRO, whereas the other cross-sex path between mothers and sons was not significant. However, further comparison between a model of cross-sex paths

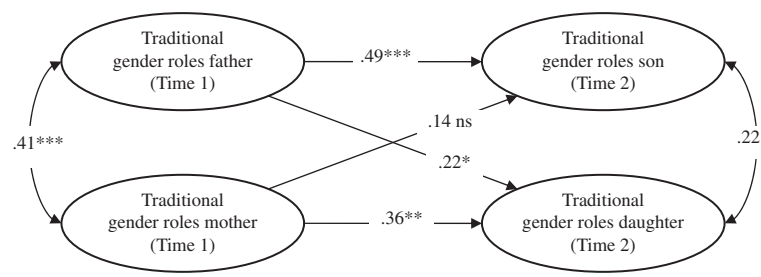

Figure 2. Parent–child transmission across a 4-year period ($\chi^2[98] = 119.77$; CFI = .98; RMSEA = .03; standardized coefficients, maximum-likelihood-estimation; ns, not significant. $*p < .05$; $**p < .01$, $***p < .001$).

TABLE 3
Results of model comparisons testing for mediation of the parent–child link in GROs through GSP

Model	$\chi^2(df)$	X^2/df	*CFI*	*RMSEA*	$\Delta\chi^2(df)$
Full mediation model	327.55(239)	1.37	.929	.039	
No mediation model	421.18(245)	1.72	.859	.054	93.623(6)***
Only mother mediation	350.29(241)	1.45	.913	.043	22.735(2)***
Only father mediation	327.56(241)	1.36	.931	.038	.001(2) ns

Notes: *ns*, not significant. ***$p < .001$.

which were constrained to be equal and a model with no restrictions revealed no significant difference ($\chi_\Delta[1] = .41$, $p = .52$). That is, although the significance levels between the cross-sex paths differed, they do not differ substantially.

To test the mediating role of GSP, we compared different nested models with a full model, i.e., initially a model with no parameter restrictions was constructed after which several parameters within this model were restricted based on theoretical assumptions. These restricted models are termed "nested" because they are all based on the unrestricted model. In a second step, we compared χ^2 statistics of these nested models with the unrestricted model (e.g., Frazier, Tix, & Barron, 2004). The present study compared four models. In the full mediation model, none of the model parameters are restricted. In the no-mediation model, we set the paths between the GRO of parents and adolescents and the GSP variable to a value of zero, assuming that there is no effect. This was done for mothers and fathers separately and for both parents simultaneously. If there are no significant differences between the models or if the models that include the forced restrictions reveal a better fit than the unrestricted model, it can be assumed that there is no mediation effect of GSP (see Table 3).

Of the four models, the one with the best fit restricted both paths from mothers' GRO to the ratings of the GSP to a value of zero, and the same paths for the father were left unrestricted ($\chi^2[241] = 327.55$; CFI = .931; RMSEA = .038). The GRO of mothers did not influence the degree of GSP, whereas a strong link between fathers' GRO and their GSP was detected.

The final mediation model with standardized path coefficients is shown below (see Figure 3). The direct paths between paternal and adolescent GRO are reduced compared to the previous model without mediating variables (father–son from $\beta = .49$ to $\beta = .25$ and father–daughter from $\beta = .22$ to $\beta = .09$). The father–son path remained significant, which might suggest a partial mediation effect of GSP on the transmission of GROs. Second, only paternal GRO had an influence on the rating of the GSP of boys and girls ($\beta_{\text{father/son}} = .36$ and $\beta_{\text{father/daughter}} = .38$). Furthermore, the ratings of GSP were related to the GRO of adolescent boys and girls, yet this influence was stronger for boys than for girls ($\beta_{\text{son}} = .64$ and $\beta_{\text{daughter}} = .33$). Additional Sobel-tests (Baron & Kenny, 1986)

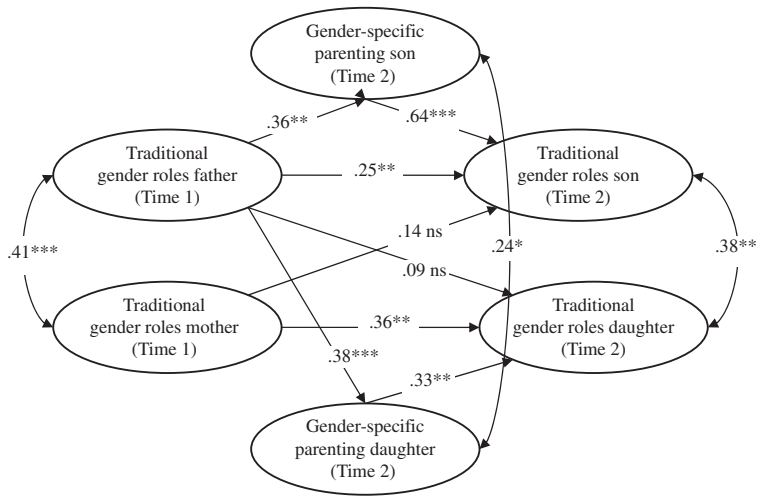

Figure 3. The mediating role of GSP in explaining parent–child transmission ($\chi^2[241] = 327.55$; CFI = .931; RMSEA = .038; standardized coefficients, maximum-likelihood-estimation; *ns*, not significant. $*p < .05$; $**p < .01$, $***p < .001$).

to check for significant mediation of GSP on GRO transmission in the different parent–child combinations (father/son, father/daughter, mother/son and mother/daughter) confirmed a mediation effect for both father–child dyads ($z_{\text{father/son}} = 2.70$, $p < .01$ and $z_{\text{father/daughter}} = 2.48$, $p < .05$) but not for the mother–child dyads ($z_{\text{mother/son}} = 1.24$, $p = .21$ and $z_{\text{mother/daughter}} = 1.40$, $p = .16$).

In a final step, the macro-level variables (i.e., WPA and SES) were incorporated into the model. There were no significant relationships between parental WPA and any of the micro-level variables from the bivariate analyses; WPA was only related to the SES of the families. In addition, due to the results of the preliminary SEM, the paths from mother GRO to the child ratings of GSP were eliminated (see Figure 4). Higher SES corresponded with lower traditional GRO and with lower levels of GSP.

DISCUSSION

Based on the within-family design, the first aim of the present study was to clarify gender differences in parent–child transmission of GRO. As expected from social cognitive theory, our results revealed that same-sex GRO similarities were stronger than cross-sex similarities. Nevertheless, adolescents and girls in particular seem to identify to some degree with their cross-sex parent's gender role beliefs. This confirms previous findings emphasizing the role of fathers in the intra-familiar transmission of gender stereotypes (O'Bryan et al., 2004). Another viable explanation privileging the transactional nature of family systems

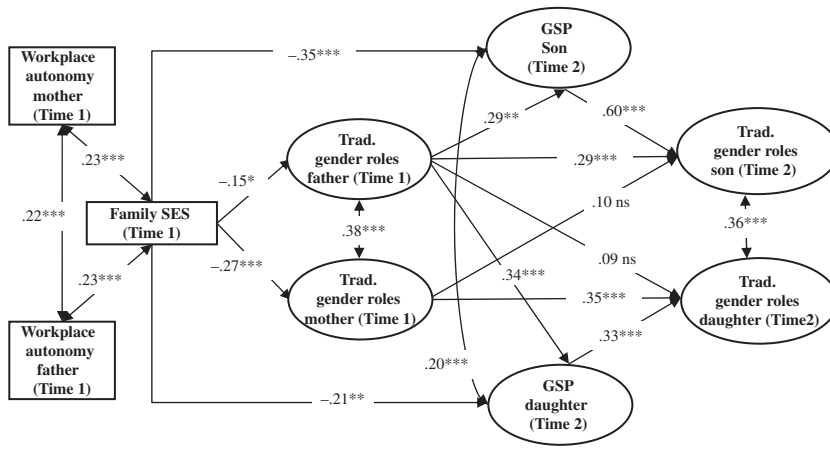

Figure 4. The role of macro-level factors (WPA and SES) on the micro-level processes of parent–child transmission of GRO ($\chi^2[309] = 411.9$, RMSEA = .04, CFI = .93; standardized coefficients, maximum-likelihood-estimation. $^{+}p < .10$, $*p < .05$; $**p < .01$, $***p < .001$).

contends that fathers with daughters become more egalitarian over time (Shafer & Malhotra, 2011). Moreover, egalitarian fathers may increasingly influence ideology construction through participation in child rearing, and especially value daughters. Additionally, we found that sons held more traditional GRO than any other family member, corroborating our expectation drawing on gender intensification theory (Priess et al., 2009). That is, within the realm of changing societal norms concerning gendered distribution of labour, boys may hold onto traditional orientations in order to secure their status advantage, whereas daughters challenge traditional gender roles (Scott, Dex, & Joshi, 2008).

The second objective was to depict factors influencing the role of mothers and fathers simultaneously in the transference of gender roles. We found strong similarities in ratings of children concerning the degree of GSP of both parents, yet sons perceive parenting as more gender-specific than daughters. The data depicted a mediating effect of GSP on GRO transmission only in father–child dyads. In the father–son dyad, the direct paths between parental and adolescent GRO remained significant indicating an association of intergenerational GRO transmission above and beyond the influence of GSP; fathers may actively rear their offspring according to their own GRO.

Our results further indicate that maternal GRO, in contrast to paternal GRO, is independent of adolescent ratings of GSP. We propose two mechanisms: first, we speculate that the degree to which the GRO (as a rating of normative aspects of gender roles in society) is internalized into the gendered concept of the self and functions as a guideline for behaviour may vary across gender. That is, fathers may feel more responsible than mothers in the communication of their values

(egalitarian or traditional) to their children (O'Bryan et al., 2004). Additional exploratory analysis of the present data revealed that ratings of GRO by fathers were more strongly related to their gender identity (Wilson & Liu, 2003) than ratings provided by mothers. However, these preliminary results require further examination.

A second explication for the missing link between mothers' GRO and their GSP may hinge on mothers' low GSP ratings. Fathers also rated fairly low but nonetheless reared their children in a more gender-specific manner than mothers. It should be noted that GSP SDs were equal for mothers and fathers, eliminating inequality of variance as a potential confound. Mothers likely model an egalitarian GRO within the present sample through their employment such that GSP is not as salient in GRO transmission. In addition, longitudinal studies have found that mothers who contribute to the total family income become more egalitarian (Zuo & Tang, 2000).

SEM revealed that sons are more susceptible to the incorporation of GSP practices into their gender role beliefs than daughters. When viewed from the varied privileges and power distributions that gender-specific socialization instils in sons and daughters, the traditional gendered power division and accompanying GRO benefit males and may then be more readily assimilated by boys. Thus, sons might agree with GSP and to fit these parenting experiences into their individual set of roles, norms and values. In sum, the results of our micro-level analyses highlight the role of the father in the intra-familial transmission of gender roles in adolescence and point to the critical need to consider male family members in questions of gender-specific socialization.

Concerning the influence of macro-level factors in the transmission of gender-roles within families, WPA was not associated with the degree of adherence to a traditional GRO. This result may be due in part to the fact that there was relatively little variance in WPA and SES. Nevertheless we found that higher SES corresponded with more egalitarian GRO. It would be valuable to separate the different aspects of SES in further study to assess which component (education or income) has a stronger influence on GRO.

The present research bears some limitations. Ratings of GSP were assessed only at the last measurement point, so the analysis of the influence of GSP on adolescent GRO remained cross-sectional. To address the issue of social desirability inherent in using attitudinal measures, forthcoming studies should include behaviour-oriented measures, e.g., gender-specific day-to-day activities (McHale, Crouter, & Tucker, 1999). Notably our sample is fairly homogenous, and thus the majority of the variables possessed relatively low levels of variance. On the micro-level, family structure factors such as step-parent status, family climate or parent–child relationship quality should be considered as should differentiated aspects of workplace structure and work–life balance beyond WPA (e.g., time spent with children and at work, separation of parental income or profession gender-typed characteristics).

That notwithstanding, this research offers insights into the processes of GRO transmission beyond the mere similarity in attitudes between parents and children. The results stress the importance of considering the critical role of fathers and gender-specific transmission processes in studies on gender socialization in adolescence. Future inquiry would do well to explore additional variables and their interrelationships to advance understanding of the ideological connections between parents and their daughters and sons in interconnected family systems.

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