Who should bring home the bacon? How deterministic views of gender constrain spousal wage preferences

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ARTICLE INFO

ABSTRACT

Despite the rise of dual-income households in the United States and a narrowing of the nation's gender wage gap, we find that many men and women still prefer the husband to be the primary breadwinner. To help explain intra-marital wage preferences, we argue for a new construct, *gender determinism*, which captures the extent to which a person believes gender categories dictate individual characteristics. We show that deterministic views of gender increase both intra-marital wage gap preferences and work choices that may perpetuate the gender wage gap. Our results hold in both student and non-student samples, suggesting some endurance of these beliefs. We discuss how our findings contribute to extant research on implicit person theory and gender role theory, and the implications of our findings for gender wage equity.

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Introduction

Some argue that the era of the husband as breadwinner is dead (Salam, 2009). The latest U.S.[1] recession reduced male employment levels more than female employment levels ("Decline", 2011), and women now represent the majority in management, professional, and related positions (BLS, 2013a). Moreover, since 2009, wives have earned more than their husbands in almost one third of American dual-income households (BLS, 2013b), and childless women between the ages of 22 and 30 earned more than their male colleagues in many of the largest cities (Luscombe, 2010). These changes suggest that the traditional model of the U.S. family, in which the husband "brings home the bacon" and the wife "fries it up in a pan" is undergoing change.[2] Yet, does everyone embrace, accept, or even acknowledge this change? Societal shifts in behavior do not imply individual members similarly change their beliefs about gender-appropriate roles. Rather societal change can beget individual level heterogeneity in gender beliefs as well as an expanding gap between preferences and reality about what it means to be a man or a woman. Individual belief heterogeneity can have implications for marriage choices (mate selection), and in a related manner, individual occupational choices and career decisions.

In this research we explore (1) whether gender differences still exist regarding present and future views of who assumes the breadwinner role in people's families and (2) if the belief that gender dictates an individual's characteristics influences intra-marital wage preferences and occupational choices. Overall, we present a novel approach to considering how beliefs about gender impact personal preferences for, and choices to enable, being the breadwinner across males and females. We propose that studying individual variance in the malleability of gender as a social category (which we term *gender determinism*), as opposed to extant research studying adherence to gender roles based on content, offers clearer insights into how these beliefs in malleability propagate an overall stickiness in people's models of gender-appropriate behavior, despite societal-level changes.

There is a rich literature on social roles and U.S. gender roles in particular (e.g., Bem, 1981; Eagly, 1987; Judge & Livingston, 2008). For example, Americans are accustomed to men being the primary wage earners in their families (Eagly & Wood, 1999) and to women being the primary caretakers (Moen & Roehling, 2005). Given that men have historically occupied the breadwinner role, people have come to believe that men, rather than women, are better able to fill this role (Eagly & Steffen, 1984), and they implicitly associate men, rather than women, with wealth (Williams, Paluck, & Spencer-Rodgers, 2010). In principle, beliefs about gender roles and resul-

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[1] We discuss U.S. data throughout this manuscript.
[2] For the sake of parsimony, we focus on heterosexual marriages based on their longstanding history of legal and social acceptance.

tant expectations for behavior and preferences may change when people view men and women performing out-of-role activities (Eagly, Wood, & Diekman, 2000). We investigate the extent to which individual gender beliefs hinder or promote the ability of people to update their ideals about what is gender appropriate based on changes at the societal level. As society changes and more women contribute to if not support the household, will men and women change their expectations of who should fill the breadwinner role, and will their expectations depend on how they think about gender? In contrast to prior research on gender roles, which focuses on role content (specific duties for men and women), we measure gender role stability and the implication of this stability for understanding people's preferences and behaviors.

Changing wage trends in the United States offer an appealing context in which to study our questions. On the one hand, more women are becoming primary wage earners, and more men are engaging in caretaker activities (Dickler, 2012). On the other hand, a median wage gap across genders persists (Blau & Kahn, 2007; BLS, 2013b), and very few women reach the upper echelons of their organizations (Catalyst, 2012). These contrasting situations allow individual beliefs about gender to inhibit or promote acceptance of gender role changes. Drawing on implicit person theory (Dweck, Chiu, & Hong, 1995), we develop the construct of *gender determinism* (GD), defined as the strength of an individual's belief that gender is a foundational force dictating a person's characteristics. By characteristics, we refer not only to stable individual differences, or personality traits, but also to behaviors, abilities, attitudes, and values. People who hold more deterministic views of gender believe that differences between men and women manifest into distinct characteristics including scientifically documented average biological differences such as strength and height but also differences with equivocal scientific support such as personality style and ideal social roles. The higher someone's GD, the more he or she views gender as influencing how someone will or should behave, possibly making it harder for that person to accept or act upon evolving gender roles.

We study people's level of acceptance to changes in gender roles by looking at their preferences for wage distribution between a husband and wife. Intra-marital wage distribution *preferences* are less about time availability and individual abilities than they are an indication of beliefs about work and home roles and who is best suited for each domain. Given the aforementioned content of U.S. gender roles assigning men as breadwinners and women as caretakers, the higher someone's GD, the more that person should prefer the husband to out-earn the wife.

We proceed by first discussing the traditional wage roles of men and women and the implications for intra-marital wage preferences. We explain why gender roles may lag behind current events, which may in turn explain why, on average, men and women still prefer the husband to be the primary wage earner. We follow with our proposition and defense of *gender determinism* as a previously unstudied but important construct for understanding individual preferences in the wake of shifting gender roles. We also explain why GD is useful in predicting wage preferences, above and beyond extant measures of gender roles that focused primarily on role content. We then test our predictions in a series of four studies and conclude with the theoretical and practical implications of our results.

Traditional wage roles

Traditional U.S. gender roles dictate that men work outside the home to financially provide for their families (Judge & Livingston, 2008; Moen & Roehling, 2005) and that women work inside the home as caretakers for their families, including any children (Corrigall & Konrad, 2007; Moen & Roehling, 2005). Despite socie-

tal shifts, such as a greater percentage of women now participating in the workforce and many wives out-earning husbands (BLS, 2013b), we offer three reasons why gender roles may evolve slowly to absorb these changes. First, gender roles are socialized at an early age, such that children and young adults typically expect that men will work outside the home and that women will care for the home (Fulcher & Coyle, 2011). Gender roles are so deeply rooted in people's psyche that they may be resistant to change. Second, such early socialization means that many assumptions about gender are implicit. As noted, individuals automatically associate men with money and wealth, and estimate higher salaries for men than women (Williams et al., 2010). These subconscious connections between men and the earning role should be slower to evolve than those that are consciously articulated. Third, because gender roles are socially constructed (Eagly & Karau, 2002), they are tantamount to social norms. Collective constructions of normative behavior are slow to evolve because violation of injunctive norms usually invites social punishment rather than norm evolution (Cialdini & Trost, 1998).

Recent research evidence suggests that social roles are slower to change than actual behaviors. For example, despite changes in economic conditions that have given women the ability to support themselves financially, women still find the financial prospects of potential male mates to be a critical concern (Stone, Shackelford, & Buss, 2008), and they are less likely to marry men whom they may out-earn (Bertrand, Pan, & Kamenica, 2013). Men still consider the earning potential of prospective female mates to be of little importance, instead valuing other qualities, such as physical attractiveness (Lippa, 2007). Moreover, women who do work are still expected to shoulder the burden of household responsibilities (Coltrane, 2000) and to make sure their families are properly cared for (Corrigall & Konrad, 2007; Eagly & Karau, 2002; Moen & Roehling, 2005; Rosette & Tost, 2010). In fact, when women out-earn their partners, they often increase the amount of housework they perform (Bittman, England, Sayer, Folbre, & Matheson, 2003), possibly to show continued compliance to traditional social norms.

Thus, we predict that, on average, when people envision future family life, they prefer the husband to fulfill the breadwinner role and the wife the caretaker role. This implies that men must earn more than their spouse and that married women in the workforce may still prefer more than men for their spouse to earn more than they do.

Hypothesis 1. Women, more than men, will prefer their spouses to be the primary breadwinner.

Deterministic views of gender

Although social role theory in general and work on U.S. gender roles in particular can explain why, on average, women and men prefer an intra-marital wage discrepancy, this literature was not developed to predict individual-level variation in gender role attachment. Society may have "consensual beliefs" about gendered activities, yet we argue that individuals can differ in their connection to these beliefs, being more or less open to adaptations in social roles. Gender determinism, a relatively stable individual difference, measures the extent to which one believes that membership in a given gender category dictates characteristics of the individual, and these beliefs should explain individual tolerance for social role changes. Our theory of gender determinism draws upon implicit person theory to explain individual variation in beliefs of the extent to which individual attributes are malleable.

Implicit person theory explains that "entitivists" consider individual attributes to be fixed traits (e.g., "I can't solve this problem because I'm not smart"), whereas "incrementalists" think individual attributes are malleable (e.g., "I haven't developed my ability

to solve this problem") (Dweck et al., 1995). These beliefs influence people's causal reasoning and behaviors. For example, incremental theorists are more likely than entitivists to persist toward their goals in the face of opposition because they believe their efforts will improve performance (Hong, Chiu, Dweck, Lin, & Wan, 1999; Kray & Haselhuhn, 2007). We argue that individual variation in beliefs about the determinism of gender follows a similar pattern. Namely, someone with higher GD is more like an entity theorist in believing gender is an immutable quality that explains and predicts individual characteristics, while someone with lower GD is more like an incrementalist in believing gender is not consistently correlated with any particular characteristics.

The obvious difference between GD and implicit person theory is that gender is a social category rather than an individual attribute. Therefore, whereas incrementalists may believe an attribute such as their ability to solve problems is malleable, setting up behaviors (persistence) that do indeed improve performance, even those low in GD seem unlikely to think they can change their gender. Rather, they would be changing what the gender category itself signifies to them—namely, what it means to be male or female.

The most critical distinction between our construct of GD and many of the extant measures in the gender literature is that the latter generally focus on the *content* of gender roles rather than their strength and stability. For example, Glick and Fiske (1996) construct benevolent and hostile sexism scales that measure explicit normative statements about men and women (e.g., men should sacrifice for women, women are too easily offended), which have been shown to correlate with greater adherence to traditional gender roles (Chen, Fiske, & Lee, 2009). Judge and Livingston (2008) construct a similar traditional role orientation measure (e.g., a woman's place is in the home, employed women contribute to child delinquency) and find that for men, greater agreement correlates with higher workplace wages. Reasoning that women may be hesitant to explicitly endorse such seemingly antiquated roles, given the social desirability bias, we sought to develop an alternative measure of gender beliefs. The fact that extant research focused exclusively on gender role content, including items that many progressive women might find offensive, tempers our ability to explain variance in women's adherence to traditional gender roles (an obstacle in some prior research, including Judge & Livingston, 2008). As well, these content measures fail to address individual beliefs about the power of a social category to determine behavior. That is, if a respondent disagrees with the statement "a woman's place is in the home," is it because the respondent thinks that social categories generally do not determine behavior, or is it because the respondent disagrees that the given social category (gender) determines the stated behavior (staying at home)?

Thus, we argue for the importance of studying beliefs about the *determinism* of gender, reasoning that the more people consciously subscribe to the idea that gender dictates individual characteristics, the more likely they are to (perhaps even subconsciously) conform to and endorse traditional gender roles, and thus to prefer and enact traditional gender-appropriate behavior.

In the context of spousal wage preferences, this suggests that GD will exacerbate the preference for an intra-marital wage gap. As we argue above, men and women are expected to fill different wage roles in the family (Moen & Roehling, 2005), and individuals may still aspire to fill these differentiated roles. GD leads to beliefs that women are better suited for some roles and men to other roles. Individuals with stronger as compared to weaker beliefs in gender determinism may desire an intra-marital wage gap even more strongly, but these desires are in opposite directions for men and women. For women, the higher her GD, the more strongly she will prefer her spouse to be the primary wage earner. For men, the opposite will hold: the stronger his level of GD, the more he will want to be the primary wage earner.

Hypothesis 2. GD will moderate the effect of gender on wage preferences such that individuals with stronger GD beliefs will show a greater intra-marital gender wage gap preference than individuals with weaker GD beliefs.

Overview of studies

We investigated our predictions using a variety of surveys tested on student participants from different regions of the United States and non-students from across the United States. Study 1 develops and validates our GD scale. Study 2 employs a survey (with Parts A and B sampling students and non-students, respectively) to show that women, more than men, prefer their spouse to be the primary wage earner and that deterministic views of gender increase this preference. Study 3 employs a student survey to show that men, more than women, prefer to be the primary wage earner themselves and that gender determinism increases this preference. Study 4 tests the behavioral implications of GD on actual wages.

Study 1: Determinism of gender – Scale development

We test whether beliefs about the determinism of gender are distinct from prior scales measuring implicit person theory and content-based gender roles.

Method

Participants and procedure

We conducted a set of validation studies in the development of our GD measure. The first sample, which was used to conduct exploratory factor analysis, consisted of 191 undergraduate students (56.3% female) from a large, public, Southwestern university. The second sample, which was used to conduct confirmatory factor analysis, included 174 undergraduate students (48.3% female) from a large, private, Eastern university. Both samples participated as part of a larger battery of online experiments in a laboratory in exchange for course credit.

Measures

Our items focused on the ability of category membership to determine attitudes and behaviors without directly incorporating the content of gender roles or judgments about what men and women should do. We developed items by reviewing and incorporating elements from race-based essentialism (Williams & Eberhardt, 2008) and implicit person theory (Chiu, Hong, & Dweck, 1997).[3] Our four items are listed in the Appendix.

To assess the discriminant validity of our GD, we compared it to relevant existing measures: implicit person theory (8 items, α = .89) (Levy, Stroessner, & Dweck, 1998) and Traditional Role Orientation (5 items, α = .90) (Judge & Livingston, 2008), which measures agreement with traditional gender roles that women belong in the home and men at work. Items were measured on a 5-point scale ranging from 1 = "Strongly do not believe" to 5 = "Strongly believe" (except Traditional Role Orientation, which used a 7-point scale).

Results

We conducted factor analysis using the principal axis factor extraction method with direct oblimin rotation because we assumed the factors would be correlated (Conway & Huffcutt,

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[3] In sensitivity to space constraints, full details on item development available upon request.

2003). We extracted factors for eigenvalues greater than 1, which yielded a four-factor solution with those four factors explaining 70.50% of the variance. We expected a three-factor solution (one for each scale), but the implicit person theory items loaded onto two separate factors. Table 1 shows the items and loadings on each factor. Not only did our measure of GD factor distinctly from other related measures, but the items also showed reasonable internal reliability ($\alpha = 0.84$). The factor on which the GD items loaded correlated $-.22$ with the factor on which the Traditional Role Orientation items loaded. In addition, no GD items cross-loaded more than .10 with any other items included in the factor analysis, except item 1 of the scale ("A person's gender is something basic about them that determines how they will act"), cross loaded at $-.12$ with the first factor for implicit person theory and at .15 for the second factor for implicit person theory.

To further support the discriminant validity of our new scale, we conducted a confirmatory factor analysis using data from a second sample ($N = 174$, 48.3% female). In this CFA we included all items previously included for GD and Traditional Role Orientation but only included the original three items for the implicit person theory measure (Levy et al., 1998) to avoid the multi-dimensionality the eight-item scale showed in the initial exploratory factor analysis. The data fit a one-factor solution poorly ($\chi^2 = 556.12$, $df = 54$, SRMR = .21, CFI = .66, TLI = .63). A two-factor model with GD and Traditional Role Orientation on one factor and implicit person measures on a second factor showed improved fit, but was still below accepted indicators of good fit ($\chi^2 = 270.25$, $df = 53$, $\Delta\chi^2 = 285.87$, 1 df, $p < .01$, SRMR = .16, CFI = .85, TLI = .82). The data fit a three-factor model well, with the chi-square value decreasing significantly ($\chi^2 = 58.86$, $df = 51$; $\Delta\chi^2 = 211.39$, 2 df, $p < .01$) and other fit measures improving dramatically (SRMR = .05, CFI = .99, TLI = .96). Finally, a four-factor model with a mix of gender determinism and TRO items on the fourth factor did not improve the fit of the model and showed worse fit than the three-factor model ($\chi^2 = 143.43$; $\Delta\chi^2 = -84.57$, 3 df, $n.s.$, $df = 48$, SRMR = .11, CFI = .93, TLI = .91). These results suggest that our measure of GD is distinct from measures of Traditional Role Orientation and implicit person theory.

Discussion

Theoretically, we argued for the conceptual distinction of GD from extant measures of gender role content and implicit person theory. Empirically, the results from this study provide evidence for this distinction. We developed a measure of people's beliefs about the stability of gender (GD), which exploratory and confirmatory factor analyses showed differentiated from earlier measures of support for gender role content (Traditional Role Orientation) and beliefs about the malleability of people (implicit person theory). This new GD scale also showed reasonable internal reliability. Having developed and validated a measure of GD, the next study examines how GD relates to preferences for an intra-marital wage gap.

Study 2

Study 2 explores whether women have a greater preference than men for their spouses to be the primary wage earner and whether high GD exacerbates this preference. To hedge the possible critique that, given a fairly young sample of students, the relationships suggested by the data are only aspirations that may not hold throughout life (e.g., Eastwick & Finkel, 2008), we collected data from both a student and a national sample.

Method

Participants and procedure

Part A sampled undergraduate students ($N = 266$, average age = 21.08, 65.4% female) from a large, public, Southwestern university who answered survey questions as part of a larger survey through a computer interface in a laboratory setting in exchange for extra course credit.

Part B sampled online participants over age 18 residing in the United States ($N = 306$) from Amazon's Mechanical Turk website who were paid $0.50 for their participation. Mechanical Turk has been found to be a reliable, non-student source of data (Buhrmester, Kwang, & Gosling, 2011; Paolacci, Chandler, & Ipeirotis, 2010). The average age of the sample was 35.14 years;

Table 1
Study 1. Factor loadings of scales.

Items	Factors[a]			
	1	2	3	4
Gender Determinism[b] ($\alpha = .84$)				
A person's gender is something basic about them that determines how they will act			.69	
Gender basically determines an individual's behaviors			.85	
There is not much people can do to really change how they will act because of their gender			.64	
Gender basically determines an individual's attributes			.82	
Traditional Role Orientation ($\alpha = .90$)				
Woman's place in the home		.82		
Wife has no time for outside employment		.89		
Employed women contribute to child delinquency		.72		
Man as breadwinner		.81		
Women happier at home		.78		
Implicit Person Theory ($\alpha = .89$)				
Kind of person someone is can't be changed				.77
People can do things differently, but can't change				.85
Everyone is a certain kind of person, can't change				.68
Can't teach an old dog new tricks; people can't change their deepest attributes	.53			.27
Everyone can significantly change basic characteristics (R)	.74			
People can substantially change the kind of person they are (R)	.86			
No matter kind of person, can always change (R)	.84			
People can change even most basic qualities (R)	.68			

[a] Principal axis extraction with direct oblimin rotation. 70.50% of variance explained. Only loadings greater than .20 are shown in the table.
[b] Except for Gender Determinism, all items are abbreviated versions of those included in survey.

65.5% of the sample was female; 80% self-declared as White; and 41.1% was married. We analyzed these samples separately because of the high rate of marriage among the nationwide participants.

Independent variable

GD was measured using the scale developed in Study 1 (Part A: α = .74; Part B: α = .80).

Dependent variable

Intra-marital wage preferences were operationalized as "preference for spouse to earn more" (Part A: α = .78; Part B: α = .71) and was measured using the three items listed in the Appendix, which asked participants how strongly they hoped their spouse would out-earn them. Participants rated each statement using a seven-point scale ranging from 1 = "Strongly Agree" to 7 = "Strongly Disagree." For ease of interpretation, we reverse coded this measure so that a higher score represents greater agreement.

Control variables

We administered the same measure of Traditional Role Orientation as in Study 1 (Part A: α = .90; Part B: α = .88) to control for whether our measure of GD, which does not contain prescriptions of gender roles, better predicts desired adherence to traditional roles than this content-based measure. We controlled for childcare expectations because these expectations might be intertwined with participants' spousal wage preferences (e.g., if a woman wants to stay home with her kids then she may be more likely to want her spouse to be the primary breadwinner). Childcare expectations were measured by asking participants whether they expected to stay at home, or had stayed home, for more than six months to care for children. Finally, we included a three-item measure of preference to maximize one's own wages (Part A: α = .79; Part B: α = .63), listed in the Appendix. Participants responded on the same seven-point scale (7 = "Strongly Disagree"), but for ease of presentation, we recoded responses so that higher values indicate stronger agreement. Part B also included additional demographic measures of age, marital status, and race. Marital status was coded "1" for married participants and "0" for single participants. Because 80% of respondents were White, we created a dichotomous (White, non-White) variable for Race.

Results

Means, standard deviations, and correlations among variables are presented in Table 2 (Part A-student sample) and Table 3 (Part B-national sample). Being female positively correlates with a preference that one's spouse earns more and with childcare expectations, and negatively correlates with Traditional Role Orientation in both samples. Among both samples, GD correlates positively with Traditional Role Orientation (Part A: r = .31, $p < .01$; Part B: r = .33, $p < .01$) but is not correlated with being female.

To test whether women, more than men, prefer their spouse to out-earn them (H1), we regressed preference for spouse to earn more on gender and GD. To test our prediction that the more women view gender as deterministic, the more they would want their spouse to be the primary wage earner (H2), we included the interaction of gender and GD after controlling for preference to maximize one's own wages, childcare preferences, and Traditional Role Orientation (Part B also included all demographic variables as controls); results are shown in Table 4 (Part A) and Table 5 (Part B). As shown in Model 2, both being female and GD are significantly and positively related to preferences that a spouse earn more than oneself: Part A (gender B = 1.15, SE = .18, $p < .01$, GD B = .23, SE = .10, $p < .05$); Part B (gender B = .69, SE = .15, $p < .01$, GD B = .32, SE = .08, $p < .01$). Traditional Role Orientation is not a significant predictor of intra-marital wage preferences in either sample, even without GD in the model. Finally, Model 3 in both Tables 4 and 5 report a significant interaction of being female by GD: Part A (B = .39, SE = .20, $p < .05$), Part B (B = .49, SE = .17, $p < .01$). Figs. 1 and 2 plot these interactions, respectively (Aiken

Table 2
Study 2A. Means, standard deviations, and correlations among variables for student sample.

Variable	Mean	SD	1	2	3	4	5
1. Female Gender	0.65	.48	–				
2. Preference to Maximize Own Wages	5.78	1.29	−.00	–			
3. Child care expectations	4.52	1.70	.44**	−.02	–		
4. Traditional Role Orientation	2.22	1.22	−.35**	.02	.03	–	
5. Gender Determinism	2.55	.74	−.09	−.04	.07	.31**	–
6. Preference that Spouse Earn More	4.15	1.32	.42**	.08	.31**	.00	.12*

Note: Correlations are within-subject correlations (N = 266). Gender was coded "0" for men and "1" for women.
* $p < .05$.
** $p < .01$.

Table 3
Study 2B. Means, standard deviations, and correlations among variables for national sample.

Variable	Mean	SD	1	2	3	4	5	6	7	8
1. Female Gender	.65	.48	–							
2. Age	35.14	11.82	.04	–						
3. Married	.41	.49	.09	.17**	–					
4. Race (Non-White)	.20	.40	−.07	−.23**	−.10	–				
5. Preference to Maximize Own Wages	5.84	1.08	.08	.03	.08	.05	–			
6. Childcare Responsibilities	4.45	1.94	.38**	.05	.09	.04	.01	–		
7. Traditional Role Orientation	2.42	1.23	−.15**	.02	.21**	−.09	.02	.13*	–	
8. Gender Determinism	2.47	.80	−.08	.08	.08	.07	−.05	.05	.33**	–
9. Preference that Spouse Earn More	4.14	1.19	.32**	.04	.03	−.10	.06	.28**	.09	.21**

Note: N = 304, except for Age, N = 303, and Race, N = 302. Gender was coded "0" for men and "1" for women; Married was coded "1" for yes and "0" for no; Race was coded "0" for white and "1" for non-white.
* $p < .05$.
** $p < .01$.

Table 4
Study 2A. Ordinary least squares regression for preference that spouse earn more: student sample.

Variables	Model 1 Spousal Wage		Model 2 Spousal Wage		Model 3 Spousal Wage	
	B	SE	B	SE	B	SE
Constant	2.57**	.43	1.66**	.46	2.34**	.58
Preference to Maximize Own Wages	.09	.06	.09	.06	.08	.06
Childcare Expectations	.24**	.05	.09	.05	.08	.05
Traditional Role Orientation	−.01	.06	.11	.07	.12	.07
Female Gender			1.15**	.18	.16	.53
Gender Determinism			.23*	.10	.00	.15
Female Gender × Determinism					.39*	.20
Adjusted R^2	.09		.22		.23	
ΔR^2			.13**		.01*	
F(df)	9.88** (3, 262)		15.70** (5, 260)		13.88** (6, 259)	
$\Delta F(df)$			22.05** (2, 260)		3.91* (1, 259)	

Notes: N = 265.
* $p < .05$.
** $p < .01$.

Table 5
Study 2B. Ordinary least squares regression for preference that spouse earn more: national sample.

Variables	Model 1		Model 2		Model 3	
	B	SE	B	SE	B	SE
Constant	3.03**	.45	2.24**	.46	3.12**	.55
Age	−.00	.01	−.00	.01	−.00	.01
Married	−.03	.14	−.09	.13	−.12	.13
Race – Non-White	−.32+	.17	−.32+	.16	−.27	.16
Preference to Maximize Own Wages	.07	.06	.06	.06	.05	.06
Childcare Responsibilities	.17**	.03	.10**	.04	.10**	.04
Traditional Role Orientation	.05	.06	.04	.06	.05	.06
Female Gender			.69**	.15	−.53	.45
Gender Determinism			.32**	.08	−.03	.15
Female Gender × Determinism					.49**	.17
Adjusted R^2	.07		.17		.19	
ΔR^2			.10**		.02**	
F(df)	4.97** (6, 294)		8.76** (8, 292)		8.87** (9, 291)	
$\Delta F(df)$			18.38** (2, 292)		8.02** (1, 291)	

Note: N = 300.
* $p < .05$.
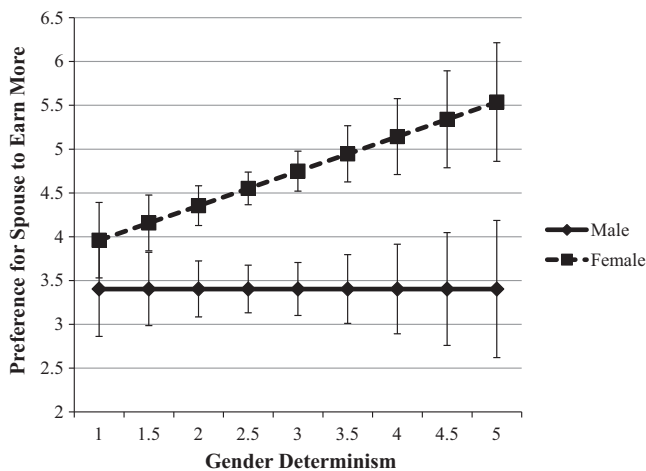+ $p < .1$.
** $p < .01$.

Fig. 1. Study 2A: Preference for spouse to earn more by gender and gender determinism (student sample). *Note:* Bars represent 95% confidence intervals.
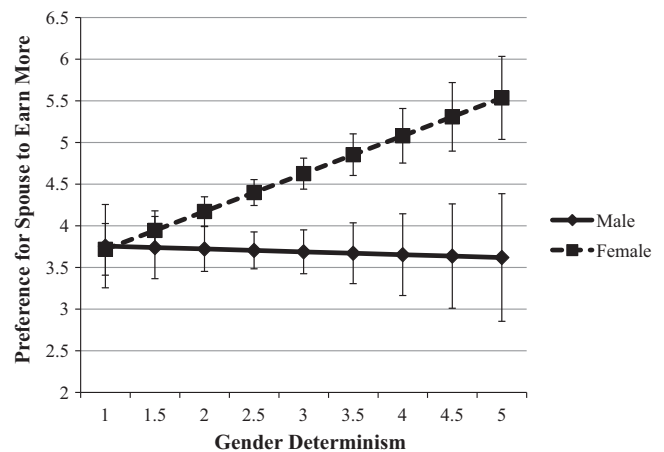

Fig. 2. Study 2B: Intra-marital wage preference by gender and gender determinism (national sample). *Note:* Bars represent 95% confidence intervals.

& West, 1991). Simple slope analyses (Dawson, 2014) show that as women's level of GD increases, their preference for their spouse to out-earn them also increases (Part A, $t(164) = 2.94$, $p < .01$; Part B, $t(183) = 4.86$, $p < .01$), but the simple slope tests for men is not significantly different from zero (Part A, $t(66) = 0$, *n.s.*; Part B, $t(93) = -0.2$, *n.s.*).

Discussion

In both the student and national sample, regressions including many control variables demonstrated that women, more than men, want their spouse to earn more than they do. Women with stronger deterministic beliefs about gender were even more likely to prefer their spouse to out-earn them. This effect persisted even after controlling for extant measures of traditional gender roles. The similarities between the student and national samples suggest that beliefs about gender determinism have long-term effects and are not constrained to ideals about mates but rather reflect preferences for actual spouses as well.

Even though Study 2 clearly shows a relationship between GD and preference for spouse to earn more for female respondents, we did not find complementary effects for males. One explanation is that our operationalization of intra-marital wage preferences (as preference for spouse to earn more) captures traditional roles from a woman's perspective. Gender norms for women suggest that their spouses should earn more, but gender norms for men do not clearly dictate that their spouse cannot earn more than them; the norm rather emphasizes that they be in a breadwinner role. To address this issue, in Study 3 we develop a second measure to capture traditional roles from a man's perspective by asking individuals whether they want to be the primary breadwinner. Though logically equivalent to our first operationalization of Hypothesis 1, these questions may not be semantically equivalent (see Mandel, 2013, for an overview of how logically equivalent questions can elicit different responses by being semantically unequivalent). Measuring breadwinner preference for oneself (rather than one's preference for a spouse) may activate a primal goal for male respondents and thus allow us to test men's preferences and further moderation of those preferences by GD.

Study 3

In this study, we measured wage preferences in two ways. We included the same three-item scale used in Study 2 to test whether individuals wanted their spouse to earn more than them, and we also included an additional scale to measure whether individuals wanted to earn more than their spouse. Thus, we are better able to capture whether women and men both ascribe to traditional roles for themselves.

Method

Participants and procedure

Undergraduate students ($N = 476$, average age = 22.2, 60.3% female) from a large, public Southwestern university answered survey questions as part of a larger (roughly one-hour) survey through a computer interface in a laboratory setting in exchange for course credit. Participants first responded to questions about GD, then did a battery of other tests, and later in the hour rated wage preferences (as a seemingly unrelated task).

Independent variables

We asked for participant gender and included our measure of GD from Study 1 ($\alpha = 0.78$).

Dependent variables

We measured a preference for one's spouse to earn more, as in Study 2 ($\alpha = 0.75$). We also included a new measure for a preference to out-earn one's spouse ($\alpha = 0.68$) using the three items listed in the Appendix.

Control variables

We collected the same control variables used Study 2 Part A, including a preference to maximize one's own wages ($\alpha = 0.64$) and Traditional Role Orientation ($\alpha = 0.90$), and an expanded three-item measure of childcare expectations ($\alpha = 0.86$).

Results

Descriptive statistics and correlations among study variables are reported in Table 6. We ran a series of linear regressions on: (1) preference for spouse to earn more and (2) preference to out-earn one's spouse. Model 2a of Table 7 shows that when controlling for a preference to maximize own wages, childcare expectations, and Traditional Role Orientation, both being female ($B = .63$, $SE = .09$, $p < .01$) and GD ($B = .11$, $SE = .05$, $p < .05$) significantly relate to the preference that a future spouse earns more. These effects are qualified by a significant interaction shown in Model 3a ($B = .30$, $SE = .09$, $p < .01$). Consistent with Study 2 and as displayed in Fig. 3, the higher a woman's GD, the more she prefers her spouse to out-earn her (simple slope test $t(278) = 3.45$, $p < .01$; for men the slope is not significantly different from zero, $t(182) = -1.16$, *n.s.*). Table 7, Model 2b, further shows that when controlling for preference to maximize own wages, childcare expectations, and Traditional Role Orientation, being female ($B = -.61$, $SE = .07$, $p < .01$) *negatively* relates to the preference that a participant, him- or herself, should earn more than his or her spouse. The negative beta weight for gender suggests that men, more than women, prefer to earn more than their spouse. This effect is also qualified by a significant interaction as shown in

Table 6
Study 3. Means, standard deviations, and correlations among variables.

Variable		Mean	SD	1	2	3	4	5	6
1.	Female Gender	.60	.49						
2.	Preference to Maximize Own Wages	4.02	.71	−.16**					
3.	Childcare expectations	2.98	1.09	.49**	−.18**				
4.	Traditional Role Orientation	1.95	.85	−.37**	.11*	.08			
5.	Gender Determinism	2.69	.81	−.13**	.06	.09*	.41**		
6.	Preference that Spouse Earn More	3.04	.87	.48**	−.08	.46**	−.07	.08	
7.	Preference to Out-Earn Spouse	3.02	.74	−.58**	.20**	−.46	.26**	.08	−.49**

Note: N = 476. Gender was coded "0" for men and "1" for women.
  * $p < .05$.
  ** $p < .01$.

Table 7
Study 3. Regression results for intra-marital wage preferences and preference to out-earn spouse.

Variable	Preference that spouse earn more						Preference to out-earn spouse					
	Model 1a		Model 2a		Model 3a		Model 1b		Model 2b		Model 3b	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Constant	2.03**	.25	1.58**	.25	2.12**	.29	3.13**	.20	3.41**	.20	3.16**	.23
Preference to Maximize Own Wages	.02	.05	.03	.05	.03	.05	.09*	.04	.08*	.04	.08*	.04
Childcare expectations	.38**	.03	.23**	.04	.20**	.04	−.32**	.03	−.18**	.03	−.17**	.03
Traditional Role Orientation	−.11	.04	−.00	.05	.01	.05	.25**	.03	.11**	.04	.10**	.04
Female Gender			.63**	.09	−.16	.24			−.61**	.07	−.24	.19
Gender Determinism			.11*	.05	−.08	.07			−.01	.04	.07	.06
Female Gender x Determinism					.30**	.09					−.14*	.07
Adjusted R^2	.22		.30		.32		.30		.39		.40	
ΔR^2			.08**		.02**				.09**		.01*	
F(df)	46.06** (3, 471)		41.86** (5, 469)		37.79** (6, 468)		68.67** (3, 471)		62.18** (5, 469)		52.82** (6, 468)	
ΔF(df)			27.73** (2, 469)		12.36** (1, 468)				36.79** (2, 469)		3.99** (1, 468)	

Note: N = 476. Gender was coded "0" for men and "1" for women.
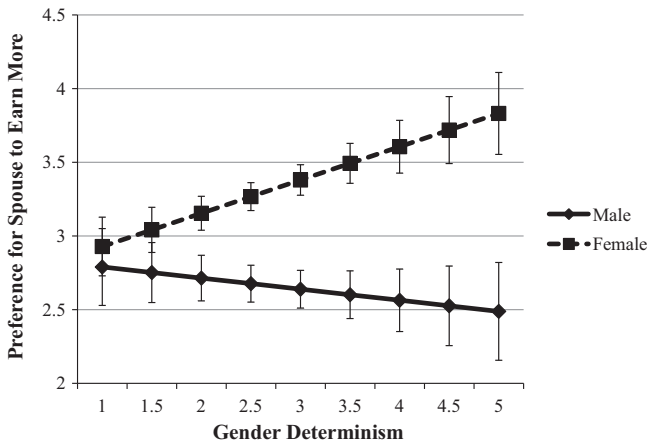* $p < .05$.
** $p < .01$.

Fig. 3. Study 3: Preference for spouse to earn more by gender and gender determinism. *Note:* Bars represent 95% confidence intervals.
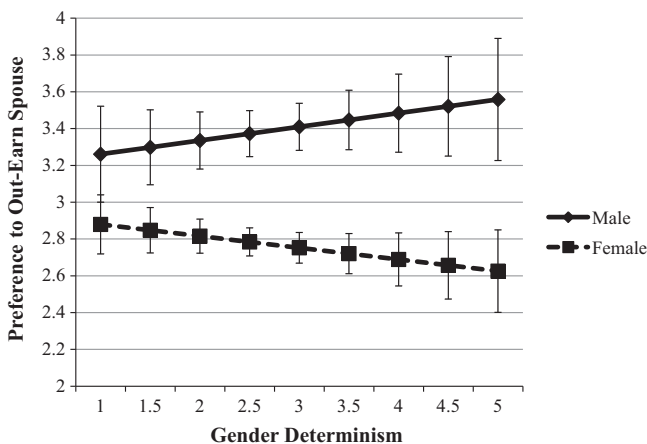

Fig. 4. Study 3: Preference to out-earn spouse by gender and gender determinism. *Note:* Bars represent 95% confidence intervals.

Model 3b ($B = −.14$, $SE = .07$, $p < .05$). Fig. 4 plots the interaction and illustrates that the difference between men's and women's preference to out-earn their spouse increases as GD increases. Sim-

ple slope tests indicate that these slopes are not significantly different from zero (Women, $t(278) = −1.42$, $p = .16$; Men, $t(182) = 1.34$, $p = .18$) but do differ in direction; thus, taken together, the interaction is significant.

Discussion

These results are consistent with our findings in Study 2 and offer support for Hypotheses 1 and 2. Women were more likely than men to want their future spouse to be the primary wage earner, and this preference was exacerbated by high GD. Men were more likely than women to want to earn more than their future spouse; at higher levels of GD, men and women differed even more on this preference. Together, these results show that deterministic views of gender increase adherence to, and promotion of, traditional gender roles and an intra-martial wage gap. Interestingly, the frame of the wage gap question affects the results. For women, deterministic views reinforced their dominant perspective (to more highly endorse their spouse as the primary wage earner). Further, when asking whether an individual wants to out-earn their spouse (which is more typical for men), we see that men and women move in opposite directions as their GD increases. Study 4 now moves beyond espoused preferences to study actual work choices and their effect on real wages and maintenance of an intra-marital wage gap.

Study 4

Study 4 explores whether women with higher GD earn less than women with lower GD. We also examine work status to identify employment choices that could affect people's wages. Specifically, we asked whether respondents were employed full vs. part time and whether they worked at home or outside the home. Working part-time allows women more time for family role behaviors. Perhaps less obviously, working from home can also help people balance work and family demands (for example, being on hand if a child comes home sick from school or interspersing work with domestic duties). We theorize that for women who do work for pay, those higher in GD might also have a greater preference to work from home (than those lower in GD) because being based at home brings one closer to the traditional female gender role. Like working part time, working from home may also be associated with a wage reduction (controlling for other factors, such as full vs.

Table 8
Study 4. Means, Standard Deviations, and Correlations among Variables.

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Female Gender	0.50	0.50												
2. Age	32.63	12.43	.15*											
3. Race (Non-White)	0.25	0.43	−.04	−.14										
4. Sexual Orientation	0.09	0.29	.08	.01	−.04									
5. Single	0.49	0.50	−.22**	−.53**	.14	−.11								
6. Preference to Maximize Own Wages	4.57	.67	.04	−.02	.13	.03	−.00							
7. Childcare Responsibilities/Exp	2.50	1.43	.40**	.16*	.06	−.04	−.29**	.07						
8. Traditional Role Orientation	2.28	1.31	−.19*	.04	.01	−.05	−.12	−.12	.15*					
9. Gender Determinism	2.39	0.92	−.13	.03	.08	−.11	.01	−.08	−.00	.49**				
10. Work Full Time	0.42	0.50	−.17*	.06	−.04	−.05	−.09	.07	−.07	−.06	.07			
11. Work From Home	0.19	0.39	.08	.14	.01	−.06	−.07	−.01	.14	.14	.06	−.06		
12. Individual Income	28775.14	26946.94	−.41**	.16	−.05	−.07	−	.05	−.25*	−.17	−.22	.62**	−.21	
13. Wage Gap at Home	−9142.92	37898.16	−.55**	.05	−.03	.00	−	.00	−.41**	−.04	−.12	.45**	−.19	.66**

Note: N = 175 for items 1–8 and N = 72 for items 11 and 12. Gender was coded "0" for men and "1" for women; Race was coded "0" for white and "1" for non-white; Sexual Orientation was coded "0" for heterosexual and "1" for homosexual/other; Single was coded "1" for yes and "0" for no.

  * $p < .05$.
  ** $p < .01$.

part time employment). We hypothesize that GD will moderate the effect of gender on work choices such that stronger GD beliefs will be associated with work choices that widen the intra-marital wage gap relative to women with weaker GD beliefs.

Method

Participants and procedure

The sample consisted of online participants over age 18 residing in the United States ($N = 175$) from Amazon's Mechanical Turk website who were paid $0.50 for their participation. The average age of the sample was 32.63 years; 50.3% of the sample was female; 75.4% self-declared as White; 42.1% worked full-time; and 42.2% were married or in a committed relationship. Participants first responded to questions assessing their level of GD and then completed some filter materials prior to the administration of all other survey items.

Measures
Independent variable. We used gender and the same measure of GD validated in Study 1 ($\alpha = .88$) as our independent variables.

Dependent variables. We collected measures related to respondents' jobs, including whether they work full vs. part time and out of the home vs. in the home. For those who were married or in a committed relationship, we asked for their own wages and their partner's wages.

Control variables. Controls included demographic information coded into dichotomous variables for gender (0 = male, 1 = female), race (0 = white, 1 = nonwhite), sexual orientation (0 = heterosexual, 1 = homosexual), relationship status (0 = not single, 1 = single), and a continuous measure of age. We also collected Traditional Role Orientation and childcare preferences, as in Study 2, and a one-item measure of preference to maximize one's own wages ("I want to make as much money as I can at work").

Results

Means, standard deviations, and correlations among variables are presented in Table 8. Consistent with our prior studies, there is not a significant relationship between gender and GD scores ($r = -.13$, *n.s.*). Being female negatively correlates with working full time ($r = -.17$, $p < .05$). For those who are married or in committed relationships, being female negatively relates to one's own income

($r = -.41$, $p < .001$) and correlates with a wider pay gap in favor of one's spouse ($r = -.55$, $p < .001$).

To understand the association of GD to actual wages, especially as they are distributed within the household, we began by assessing the effects of gender and GD on job choice by running individual binary logistic regression analyses with gender, GD, and the interaction of gender and GD predicting the likelihood to work full time and likelihood to work from home and including all control variables. A significant negative main effect of being female predicts likelihood to work full time ($B = -.83$, $SE = .36$, Wald = 5.16, $p < .05$), but no significant interaction between gender and GD. For working from home, there are no main effects of gender or GD, but there is a significant interaction effect ($B = 1.03$, $SE = 0.47$, Wald = 4.69, $p < .05$). Following Dawson's procedure (2014) for plotting two-way logistic interactions, Fig. 5 plots these effects and indicates that for women, stronger deterministic views of gender is associated with an increased likelihood of working from home. Complementarily, men with stronger deterministic views of gender are less likely to work from home.

We then asked whether this job choice of high GD women (to work from home) is consequential to their earnings and the relative wage gap in their household. Using linear regression analyses including all controls, among married and committed couples, there is a significant negative effect on wages for working from home ($B = -12845.17$, $SE = 6113.95$, $p < .05$) (controlling for both gender and GD). Using working from home as a mediator elicits an indirect effect of GD on one's own wages due to the increased likelihood of high GD women working from home that approaches traditional levels of significance (Sobel $z = 1.53$, $p = .06$).
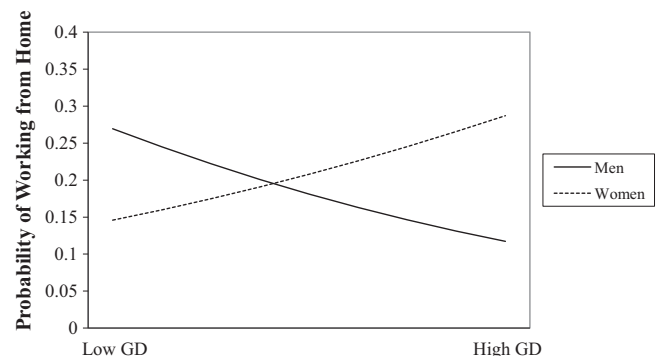

Fig. 5. Study 4: Binary logistic regression results predicting probability to work from home from gender determinism for men and women.

Discussion

GD not only influences women's preferences for spousal wage distributions (Studies 2 & 3) but also their employment choices and real wages (Study 4). Namely, the higher a woman's GD, the more likely she was to work from home and the less she was likely to earn. Interestingly, there were no effects of GD for full-time vs. part-time work. We suspect this may be because the employment choice to work only part time may not be financially viable for many families in our sample. Therefore, the intra-marital wage gap preferences that were clearly evident for high GD women in Studies 2 and 3 manifested in a more nuanced employment choice in Study 4—whether or not to work from home, which had negative consequences on wages.

General discussion

Although objective indicators, such as real wages and workforce participation, show women closing the gender gap at the societal level, our data suggests that at the individual level certain people may be slower to accept and/or seek these changes than others. In particular, we find that the more deterministic a person's beliefs about the power of gender are, the stronger that person's preference for traditional wage distributions between spouses, in which the husband is the primary wage earner. In Study 1, we validated a scale to measure this new construct and demonstrated it as conceptually and empirically distinct from related constructs and current measures of gender role content. We then showed in Study 2 that among both students and non-students, women were more likely than men to want their spouse (or future spouse) to out-earn themselves, a preference enhanced for women as their GD increased. Study 3 complemented these results by showing that the differences between males' and females' desire to out-earn their spouse (a preferential wage gap) increased as their GD increased. Study 4 showed how GD translated into real work choices that affected wages, such that high GD women were more likely to work from home than low GD women, a job choice that resulted in reduced wages. These findings suggest that gender determinism correlates with how women make choices that can reinforce traditional gender norms of which spouse is the caretaker and which is the primary breadwinner, as well as the traditional intra-marital wage gap.

Theoretical contributions

One contribution of our research is the introduction of *gender determinism* as a construct of interest in the study of gender, gender roles, and gendered behavior. This construct was motivated by a desire to look beyond the existing measures of gender role content to assess the underlying view that gender either dictates individual differences or does not. We believe this construct may be more useful in measuring contemporary gender attitudes, particularly among women. Correlations between gender and our measure of GD were generally small (from $r = -.08$ to $r = -.13$) and not significant (Study 3 being the exception). In contrast, gender was always found to correlate negatively and significantly with the measure for Traditional Role Orientation (from $r = -.15$ to $r = -.35$). Thus, GD may be a cleaner measure of people's beliefs about gender since it is not confounded with respondent sex. In addition, we found that GD predicted people's preferences for intra-marital wage distributions above and beyond content-based measures of gender roles.

Grounded on implicit person theory (Dweck et al., 1995), we argued that beliefs about the extent to which a social category determines an individual's characteristics influence one's own adherence to, and promotion of, behaviors associated with this category. Just as entity beliefs about *individual* abilities can create self-fulfilling prophecies that limit a person's performance (Hong et al., 1999), we show that deterministic beliefs about the *gender category* may be associated with self-fulfilling prophecies that limit the ability of some women to see themselves as a primary breadwinner.

Our research also contributes to the burgeoning body of literature on gender essentialism. General theories of essentialism look at individual beliefs regarding the stability of any social category (Haslam, Bastian, Bain, & Kashima, 2006) and whether these categories are seen as stable because of an inherent biological (Keller, 2005) or social background basis (Rangel & Keller, 2011). We make no assertions as to the source of someone's beliefs about the determinism of gender, whether it results from biological bases, socialization (such as gender roles of parents), or even divine religious beliefs. Yet, we do suspect that individuals with stronger GD beliefs likely view social categories as having a fundamental, "natural essence" that makes them inalterable (Gelman, 2003; Haslam et al., 2006). Gender as a social category (distinct from biological sex) has been studied as gender-based essentialism (Morton, Postmes, Haslam, & Hornsey, 2009). GD is a logical consequence of gender-based essentialism, but these two constructs are conceptually distinct. Gender-based essentialism measures individuals' beliefs about how gender as a social category comes to exist and how it is used to explain the behaviors of others. In contrast, gender determinism measures how beliefs about gender as a social category constrain one's own behavior, effectively resulting in a tendency to self-stereotype rather than stereotype others.

Another contribution of this research is the finding that, regardless of individual variation in GD, adherence to traditional intra-marital wage divisions is surprisingly manifest. On average, both men and women, across a variety of ages and income levels, preferred the husband to out-earn his wife, regardless of their level of GD. Thus, while sociological metrics may be shifting (e.g., with women working more and earning relatively more), socially constructed views of gender may not be as quick to update. We offered three reasons why this might be: early socialization, subconscious associations, and the power of collectively held beliefs. Future research might test the relative strength of these explanations.

Practical implications

One practical importance of GD is that these beliefs are associated with women's wage preferences and work choices, which subsequently impact real wages. Our results suggest that the gender gap in wages might be due in part to individual beliefs held by men and women that they may not consciously recognize are influencing their actions. Williams and Eberhardt (2008) suggested that a similar subconscious belief system surrounded race, whereby people holding more essentialist beliefs of race were more likely to endorse stereotypes and less likely to think that anything could be done about discrimination.

Beliefs about GD may also be associated with the advancement of women into upper-level management. Hoobler, Wayne, and Lemmon (2009) recently found that managers were less likely to believe women were promotable when they perceived greater family-work conflict for female as compared to male subordinates. It is possible that bosses with more deterministic views of gender might be even more likely to perceive these conflicts (whether they exist or not). Deterministic views might also influence perceptions of competence. Given that businesswomen are perceived to be more competent than other women (Fiske, Cuddy, Glick, & Xu, 2002), people high on GD might automatically perceive women to be generally less competent in business (but more competent

in home roles) than men, perhaps limiting the advancement of women within organizations. Future research would benefit from exploring these possibilities.

Limitations and directions for future research

Limitations in our current research open opportunities for future research in this area. An important limitation to acknowledge is our exclusive focus on U.S. gender norms for heterosexual couples. For the sake of parsimony, we chose to develop and validate our new construct of gender determinism in a single national culture. However, one might imagine that the more "masculine" the culture, meaning the more tightly defined gender roles are (Hofstede, 1980), the higher that culture's members might rank on GD and the more strongly GD might interact with gender in determining people's intra-marital wage preferences. Similarly, adopting our measures to same-sex couples could shed light on basic question of gender and identity, such as whether or not gender is as fixed a social category in these couples.

For coherence, we tested only one facet of gender roles—the intra-marital wage gap that is associated with men being the primary breadwinner and women the primary caretaker. Future research should explore the impact of GD on other workplace activities. For example, during the fall 2013 U.S. budget crisis negotiations, some suggested that the record number of women in Congress helped create an eventual deal because women are allegedly more cooperative negotiators than men (Weisman & Steinhauer, 2013). Future research could examine how a person's GD correlates to his or her beliefs about whether women are suited to some types of workplace tasks than men and vice versa—and how this might affect the job assignments of both men and women.

Our measures of intra-martial wage preferences showed some impact of framing. When intra-marital wage preferences were framed as preferences for one's spouse to earn more, women showed a distinct preference, which was exacerbated by GD. However, when framed as a preference to out-earn one's spouse, men showed a distinct preference, and the gap between men and women's preferences increased with increasing GD. Semantically, of course, these questions should be equivalent. It may be that when the question was framed as a preference for the spouse to earn more, this idea was too incongruous for men, and their GD levels didn't affect their responses as a result. Thus, GD may be a better predictor of preferences and behaviors when it is increasing the role that each gender, on average, prefers. Future research could explore the robustness of this gender asymmetry in terms of how the question's frame elicits stated preferences.

In this paper we theorize GD to be a relatively stable individual difference that can be measured as a trait-like characteristic and that predicts ascription to traditional gender divisions of labor above and beyond existing content-based measures of gender roles. However, we acknowledge the power of strong situations (Mischel, 1977) and believe that certain contexts may prime more deterministic views of gender, at least in the short run. Like other trait-based individual differences (conscientiousness, agreeableness), GD, we believe, can also be situationally induced. Just as situations (such as high accountability) can prime people to be more conscientious, situations may also prime behavior that reflects high or low GD beliefs. As noted, social role theory allows that exposure to men doing female activities and women doing male activities could loosen people's adherence to traditional gender-based roles (Eagly et al., 2000). Future research should explore the ability to manipulate GD beliefs using situational primes. As an example, it's possible that exposure to gender-inconsistent models (women as breadwinners and men as domestic caretakers) may prime behavior consistent with low GD and thus attenuate intra-martial gender wage preferences.

Although we operationalized adherence to traditional gender roles using measures of mate preference (specifically, desire to be the primary breadwinner or to have a spouse who is the primary breadwinner), we did not explore dyadic fit in gender determinism or the intra-marital wage preferences of married or committed couples. We believe it would be fruitful for future research to study couples whose GD beliefs do not complement each other. Pierce, Dahl, and Nielsen (2013) found that mental and sexual health problems (e.g., ED, depression, insomnia) develop more in marriages when women who were out-earned by their mates prior to marriage began to out-earn their spouses. Similarly, Bertrand et al. (2013) find that when the wife earns more, a couple is more likely to de-couple (divorce) than when the husband does. Although these studies did not directly measure wage preferences or any antecedent gender beliefs, their data suggests consequences when a misfit develops. There may be spillover effects into workplace satisfaction as well. For example, we could envision that a husband with weaker GD beliefs than his wife might feel undue pressure to fulfill a breadwinner role that he is not personally motivated to achieve, resulting not only in marital strife but also in job stress.

Conclusion

Despite changes in actual behaviors, wherein women in the U.S. are increasingly adopting the breadwinner role, we find a great deal of heterogeneity in individual beliefs about the malleability of gender and subsequent adherence to and promotion of traditional gender roles. We find that strong beliefs in the determinism of gender, in other words, that gender is immutable, have important implications for individual wage preferences and in women's work choices. The higher a person's GD, the more he or she adheres to, and acts in ways to promote, traditional social roles. We also found that, on average, people (regardless of gender, age, and race), preferred the traditional model of the male breadwinner. The continuing gender wage gap at the societal level may both reflect and re-enforce an individual's deterministic views of gender and intra-marital wage preferences.

Appendix

Preferences for Spouse to Earn More Scale

(1) It would bother me if my spouse (or future spouse) always makes less money than I do.
(2) I expect that my spouse (or future spouse) will eventually make more money than I do.
(3) I hope that my spouse (or future spouse) will eventually make more money than I do.

Preference to Out-Earn Spouse

(1) I hope to be the primary wage earner of my family.
(2) It would bother me if I always made less than my spouse.
(3) I want to make more than my spouse.

Gender Determinism

(1) A person's gender is something basic about them that determines how they will act.
(2) Gender basically determines an individual's behaviors.
(3) There is not much people can do to really change how they will act because of their gender.

(4) Gender basically determines an individual's attributes.

Preference to Maximize Own Wages Scale

(1) It is perfectly okay for me to make more money at work than my colleagues.
(2) I want to make as much money as I can at work.
(3) It would bother me if I found out that my colleagues made more money than I did for the same job at the same level.

Child Care Expectations (Study 3 only items included in italics)

(1) My ideal vision would be that I stay at home to care for my children for the first few years of their lives.
(2) I hope to be in the home to be the primary caretaker of my children.
(3) I plan to stay home to care for our children for more than 6 months.

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