EXPLORING GENDER INEQUALITIES IN MENTAL LOAD: A CROATIAN HOUSEHOLD STUDY ON MENTAL TASKS WITH THE LARGEST GENDER GAP

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Abstract—This study investigates gender inequalities in mental labor within Croatian households, examining the complex dynamics of cognitive and emotional labor associated with family responsibilities. Building upon established theoretical perspectives, namely the resource and power perspective and the gender role ideology model, which are typically used to explain gender inequalities in performing physical housework, this study explores their applicability to mental labor. Using data from 1,000 participants in heterosexual relationships in Croatia, this study focuses on mental tasks displaying significant gender gaps: notably related to cleaning, groceries (knowledge and planning), and social family life for women, while tasks related to car maintenance for men.

The results reveal that women do more mental labor and therefore experience a higher mental load, especially concerning daily tasks, due to the frequency and quantity of their responsibilities. Egalitarian upbringing, equal division of household chores in parents' households, and higher socioeconomic status contribute to women's reduced mental load. Men experience a lighter mental load for typically men's mental tasks when raised in egalitarian environments, have partners with superior socioeconomic status, and exhibit lower religiosity. Religiosity has no effect on the women's mental labor, but having children does. Unlike the women's model, having children has no effect on men's mental labor, but religiosity does. These gender-specific models explain 10% of the gender-based variation in typical women's task regrading mental labor and 15% in typical men's task. The research results indicate that the gender role ideology model is more useful in explaining the gender gap in mental load than the resource and power perspective, although neither of them is entirely suitable. We argue that the reason for this lies in the unique nature of mental labor in households, highlighting the need for new theoretical perspectives. Special attention is given to the critique of the resource and power perspective as it may not account for the complexities of power dynamics influenced by ideological, cultural, and gender factors within intimate relationships nor can it encompass emphasizing distinctive characteristics of mental labor compared to physical household labor. This research contributes important insights to the ongoing discourse on gender inequalities, urging a re-evaluation of existing paradigms to foster a more equitable division of mental labor within households.

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Index Terms—*Gender gap, Gender inequality, Household responsibilities, Mental labor.*

Introduction

Gendered household work encompasses various types of labor that individuals perform within a domestic setting. This work can be broadly categorized into three distinct types: physical, emotional, and cognitive. Physical household work involves repetitive tasks related to household and childcare responsibilities. This type of work has been extensively researched and documented in the context of gender roles and responsibilities within families. Emotional household work can refer to two different things. First, it can mean managing emotions [1], while second it can refer to feelings of care and responsibility for family members. This emotional labor is essential for maintaining familial relationships. Additionally, emotional work also encompasses the emotional impact of housework on individuals [2]. Cognitive household work encompasses activities such as anticipating needs, identifying options, making decisions, and monitoring progress related to family life. This type of work requires mental effort and is crucial for the smooth functioning of a household, that is, in household management [3]. Mental labor is a concept that emerges from the combination of emotional work as defined by [2]and cognitive labor associated with family life, defined by [3]. It involves the thinking, planning, scheduling, and organizing of family members, coupled with the emotional labor of caring for and feeling responsible for family members and can be defined as the combination of cognitive and emotional efforts in family-related tasks[2].

As a relatively new theoretical concept in social sciences, various terms are still used in the scientific literature to describe mental labor and related concepts. There is still no uniformly accepted definition of mental labor in the context of unpaid work [4]. The terminology includeshousehold management[5] - [7], management of household and childcare tasks [8]or just management[9], cognitive labor [3], invisible labor/work [6], mental labor/work[10]- [14], and mental load [2]. Researchers have explored these concepts from different angles, leading to a rich and diverse vocabulary to describe the multifaceted nature of gendered household work.

In our study, in accordance with [4]we argue for differentiating mental labor from mental (or cognitive) load in terms that mental load is not an inherent aspect of mental labor, but a consequence thereof (pp. 476).

Mental laborhas several specific characteristics that distinguish it from other forms of household work: invisibility, boundarylessness, endurance, and utilization of cognitive and emotional resources[2] (although calling it mental load). Mental labor is often invisible, making it challenging to recognize and quantify. Unlike physical labor, which is tangible and observable, mental labor operates in the realm of thoughts, emotions, and planning. Mental labor transcends physical boundaries, extending beyond specific time frames or locations. It is a continuous process that individuals engage in, blurring the lines between work and personal life. Mental labor is enduring, persisting over time. Unlike physical tasks that have defined completion points, mental labor is an ongoing responsibility that individuals bear continuously. Engaging in mental labor requires the utilization of cognitive and emotional resources. Individuals invest

their mental energy and emotional well-being in managing the needs and dynamics of family life. More recently, the results of the first systematic literaturereview on the cognitive dimension of unpaid work within the household and childcare[4]propose five constitutive elements of mental labor in the context of unpaid work: cognition, management, communal orientation, anticipation, and invisibility.

Due to its intangible and enduring nature, quantifying mental labor presents a significant challenge. Unlike physical tasks that can easier be measured objectively, mental labor operates in the realm of subjective experiences, making it complex to assess quantitatively. Additionally, theoretical explanations of gender differences in mental labor are not well integrated or methodologically considered in the existing scientific literature on this phenomenon[4]. Since understanding the nuances of gendered household work, particularly mental labor, is essential for addressing gender inequalities within families, we aim to explore and test potentially relevant theoretical explanations of gender inequalities in mental labor.We focus specifically on mental tasks with the largest performance difference between men and women.

Theoretical Explanations of the Causes of Gender Inequality in the Division of Household Work

Gender inequality in the division of household work has been a topic of extensive study, with various theoretical perspectives attempting to explain the underlying causes of this disparity. Two prominent theoretical frameworks are the resource and power perspective and the gender role ideology model [15].

1. Resource and Power Perspective

The resource and power perspective (or relative resources argument)posits that women possess fewer resources and less power within the family compared to men[16] - [18]. As a result, they are more likely to accept an unequal division of household work. Resources here can include employment status, financial assets, education, and social influence. Studies such as [19]have explored how this perspective manifests in the allocation of time spent doing physical household work, and showed that the explanatory power of resource factors increased over time, but still only less than a half of the gender gap in housework time can be explained by the gender differences in resources.

2. Gender Role Ideology Model

The gender role ideology model, proposed in[20], suggests that beliefs and attitudes about gender roles influence the division of household labor. According to this model, three types of marital ideologies shape the division of labor: "traditional", where women predominantly perform household tasks, "egalitarian", indicating equal sharing of responsibilities, and "transitional", representing a shift from traditional to egalitarian roles. Studies such as [21]demonstrate the power of gender social norms on housework showing that the respondents living in Census divisions characterized by less traditional gender ideologies report performing

less housework – whereoverall public views support gender equality, individuals are likely to perform less housework. They argue that housework remains a gendered occupation and thus a social problem related to the inequitable distribution of unpaid labor worth examining[21].

While originally applied to physical housework, we are questioning whether these theoretical explanations can be extended to mental labor in households, considering the invisible and cognitive nature of mental tasks and unique challenges due to its intangible and enduring nature.

Research Questions and Operationalization

In the pursuit of understanding the gender gap in mental labor activities, particularly among demographics experiencing the most significant disparities, this research delves into two fundamental questions. First, which mental tasks have the highest level of gender inequality? Second, can a combination of indicators derived from the resource and power perspective and the gender role ideology model, initially developed to explain physical housework, be applied to comprehend the mental labor gender gap?

To address the first research question, an extensive and comprehensive list of mental labor activities needs to be developed, aiming to encompass tasks related to both traditionally female and those associated with traditionally male physical household chores and childcare duties. This study relied on the combination of three existing measurement scales for various household mental labor activities, to which some additional activities were later incorporated based on a qualitative study [22]. The first scale named Divison of Labour Measure[8], consisted of foursubdimensions, two of which related to physical labor (Household Tasks with 14 items and Childcare Task with 11), while the remaining two, of interest in this paper, related to Household Management (11 items) and Childcare Management (10 items). The second study [6] developed a Household Management Items instrument consisting of three subdimensions of mental load: Responsible for Household Routines (4 items), Responsible for Child Adjustment (4 items), and Responsible for Household Finances (5 items). The third and the most extensive scale named Mental Labor in Relationships[13] developed a new instrument consisting of 50 items in five subdomains: Planning and Strategizing, Monitoring and Anticipating Needs, Knowing, Managerial Thinking, and Self-Regulating (since the last subdomain is conceptually not part of the definition of mental labor in this study, it was not included in our research).

To address the second research question, the study incorporates two foundational theoretical perspectives: the resource and power perspective and the gender role ideology model. These frameworks, originally designed to interpret physical housework dynamics, are adapted to explore their applicability in explaining the mental labor gender gap. The research aims to identify connections between indicators from these perspectives and mental labor activities, providing insights into the factors influencing the unequal distribution of cognitive and emotional labor within households.

To operationalize the resource and power perspective, this study employs several indicators, including the Gender Socioeconomic Inequalities in Intimate Relationships Index(GSEI)[23], the

educational background of respondents, and the education level of their partners. These indicators serve as proxies for resource availability and social power, allowing the examination of their impact on mental load disparities.

In operationalizing the gender role ideology model, the study utilizes indicators such as gender discrimination experienced during primary socialization, parental egalitarianism in the division of housework, as well as the religiosity levels of respondents and their partners. These indicators are employed to measure the influence of deeply embedded gender ideologies and beliefs about familial roles on the division of mental load tasks.

Methods

Procedure

The research methodology employed in this study involved a comprehensive quantitative survey conducted between November and December 2022 in Croatia. A total of 1000 participants were included, utilizing a combination of online surveys (70%) and Computer-Assisted Telephone Interviews (CATI survey, 30%).

Ethical committee of the Department of Sociology, Faculty of Humanities and Social Sciences, University of Zagreb gave positive opinion and approval for the conduction of the research (03-2022/2023).This study was conducted as part of the mixed-methods research project on mental labor in the household funded by the University of Zagreb, Croatia.

Participants

The sample consisted of individuals living in heterosexual relationships with partners, whether married or not, for a minimum duration of one year. To ensure the representativeness of the sample, careful monitoring was conducted based on key variables: age, gender, region, and settlement size, aiming for diverse and comprehensive representation across these criteria.

In terms of the sample description, 52.1% participants (N= 521) were women.The average age of participants was 53 years (SD = 13) for women and 48 years(SD = 13) for men.79% of the participants were married while the remaining 21% lived in cohabitating relationship. Joint childcare responsibilities with their partner had 78% of the participants. Among women, 6% had completed elementary school only, 56% had a high school education, and 38% had higher education qualifications.Among men, 1% had completed elementary school only, 52% had a high school education, and 47% had higher education qualifications.Regarding religious affiliation, 84% of women identified as Roman Catholic, 4% belonged to other religious affiliations and 12% identified as having no religious affiliation. Among men, 76% identified as Roman Catholic, 4% as other and 20% identified as having no religious affiliation.

Materials and Measures

We measured the *mental labor activity list*, consisting of 74 items, adapted from three survey scales[8][6][13], combined with some additional mental tasks based on our own qualitative pre-research [22]. For each item, the response scale included the following options: 0. Neither I nor

my partner do that; 1. Only me; 2. More me than partner; 3. Both me and partner; 4. More partner than me; 5. Only partner.

Gender Role Ideology Model Variables

The measure of *gender discrimination in primary socialization* utilized a one-item instrument[24]. Respondents assessed an extent to which the item "In my family, distinct rules existed for male and female members." applied to the family in which they were raised, using a 5-point ordinal scale ranging from 1 "Not at all" to 5 "Completely".

The *egalitarianism of parents in the division of housework* was measured according [21]using the question, "During your childhood, who among your parents (or caretakers) undertook household chores?" with the following response options: 1. The mother (or another female person) performed the majority of household chores, 2. Both parents were equally involved in household chores, 3. The father (or another male person) performed the majority of household chores.

The *religiosity* of the respondents was assessed through religious self-identification, employing a measure derived from the international research project Aufbruch. This instrument utilized an ordinal scale with five degrees ranging from 1, signifying adherence to church teachings, to 5, denoting opposition to faith. Additionally, the scale incorporated distinctions within the category of those identified as "religious," specifically classifying them into "religiously orthodox" and "individually religious," along with categories for "religiously uncertain," "non-religious," and "opponents of faith"[25] - [27].

Resource and Power Perspective Variables

Gender socioeconomic inequalities in intimate relationship were assessed utilizing the GSEI Index [23]. This composite measure is derived from 5 constructed (using 7 manifest) variables, assigning scores that range from -5, indicating female superiority in socioeconomic status (SES) over her partner, through 0, signifying equal SES between partners, to +5, denoting male superiority in SES over his female partner.

The *education levels of the respondents and their partners* were measured on an ordinal scale with 9 degrees, ranging from 1 (no formal education) to 9 (specialization or PhD).

The control variable in the models pertained to shared childcare with the partner, and was measured on a binary level (yes/no).

Analytical Strategy

From the list of 74 mental labor tasks, in this paperwe identified those with the largest gender gap, where the difference in the proportion of men and women performing them (mostly or exclusively) exceeded 50%.

We created two indexes (which were then dependent variables in the models): Typical women's mental tasks with the most significant gender gap (16 items) and typicalmen's mental tasks with the most significant gender gap (three items). Subsequently, we conducted gender-

segregated multivariate linear regression models using the predictors from two competing theoretical frameworks and controlling for shared childcare, assuming that individuals with children will engage in more housework than those without children.[28] - [30].

All statistical analyses were conducted using IBM SPSS Statistics, version 27. Initially, a descriptive analysis of all variables of interest was conducted. Before implementing multivariate models, assumptions for their application were checked. Statistical testing was performed at a significance level of p<0.05.

Results

We present the main results in two sections: identification and description of mental tasks with the largest gender gap and gender-specific multivariate models explaining the gender gaps for typical women's and men's tasks.

Mental Tasks with the Largest Gender Gap

For each of the 74 measured mental tasks in the household, we analyzed the summed percentage of answers "1. Only me"and "2. More me than partner" separated by gender, and then calculated the difference representing the gender gap. 19 tasks had a gender gap exceeding 50%, including 16 typical women's tasks (mostly done by women) and three typical men's tasks (mostly done by men).

As presented in Table 1, typical women's mental tasks are those related to cleanliness, knowledge and planning related to household goods and food, but also organization of social family life.These tasks revolve around household management skills. This includes recognizing when bedding needs changing, understanding proper laundry care, identifying when cleaning is needed in various areas (kitchen, bathroom), monitoring cleaning supplies, planning cooking times, knowing kitchen item locations, organizing for family trips, reminding of important dates, planning meals with available ingredients, monitoring household item supplies, and overall awareness of necessary chores in the household.

On the other hand, typical men's mental household tasks, besides the fact that there are significantly fewer of them, are related only to one thing: car maintenance.This set of tasks involves automobile maintenance and awareness. It includes recognizing when the car requires oil and air, arranging repairs for the vehicle, and remembering essential tasks such as registration, servicing, or tire changes.

Table 1. **Mental tasks with the largest gender gap - description**

Typical women's tasks	*Women 1+2*	*Men 1+2*	*Gap W-M*
Noticing when the bedding needs to be changed	**84,1%**	9,2%	74,9%
Knowing how to properly wash and care for clothes (e.g., which pieces of clothing can be washed together)	**81,8%**	8,1%	73,6%
Noticing when something is dirty and needs to be washed (e.g., curtains, windows, toilet)	**80,6%**	12,3%	68,3%
Knowing how to properly clean the kitchen (e.g., inside the oven, stove, sink, floor)	**79,3%**	11,1%	68,2%
Noticing that detergent or other cleaning agents are running out	**82,7%**	14,6%	68,1%
Knowing how to clean the bathroom effectively (e.g., cleaning limescale and soap stains, the inside of the toilet, sink, bathtub)	**77,4%**	11,7%	65,7%
Noticing that the bathroom needs cleaning	**79,3%**	15,7%	63,6%
Planning when to start cooking	**77,2%**	16,7%	60,5%
Knowing where certain things/objects are located in the kitchen	**71,8%**	11,5%	60,3%
Planning what to pack for a family trip	**69,9%**	10,2%	59,6%
Reminding family members of the birthdays of close friends and relatives	**69,7%**	12,3%	57,4%

	Women 1+2	Men 1+2	Gap M-W
Deciding what to cook with ingredients that are already in the house, i.e., already purchased	**72,6%**	16,7%	55,9%
Noticing when some of the food and household items are running out	**73,7%**	18,4%	55,3%
Reminding the household members about important upcoming events	**69,3%**	14,0%	55,3%
Writing grocery shopping lists	**72,2%**	17,5%	54,6%
Knowing all the household chores that need to be done	**64,7%**	13,8%	50,9%
Typical men's tasks	*Women 1+2*	*Men 1+2*	*Gap M-W*
Noticing that the car needs oil and air	12,3%	**70,1%**	57,9%
Arranging car repairs	12,7%	**67,8%**	55,2%
Remember that someone needs to register or service the car or change its tires	16,5%	**67,4%**	50,9%

Gender-Specific Multivariate Models Explaining the Gender Gaps in Mental Load

Gender-specific multivariate models were developed to determine the factors contributing to gender gaps in mental load. In the model for women (Table 2), conducted on a subset of 503 women, 10% of the variance in the dependent variable was explained. A higher score on the dependent variable indicated that men engaged more in these typical women's mental tasks, while women work less.

The model shows that women without children (β = -0.134; p = 0.002) experience reduced mental load. Two out of four indicators of gender role ideology model were statistically significant. Women who had an egalitarian upbringing, characterized by no distinct rules for girls and boys during their childhood (β = 0.128; p = 0.003), exhibited lower engagement in typical women's mental tasks.Similarly,women raised in families with an egalitarian division of household chores between parents (β = 0.219; p < 0.001) also reported lower mental load. One out of three indicators of resource and power perspective was statistically significant. Women

with a better relative socioeconomic status in comparison to their partners (GSEI index) (β = -0.108; p = 0.033) exhibited lower engagement in typical women's mental tasks.

Notably, religiosity of women and their partners, as well as the level of education of women and their partners, were not statistically significant predictors for typical women's mental tasks.

Table 2. Effect of gender role ideology model, and resource and power perspective indicators on the **women's mental tasks** with the most significant gender gap

Independent variables - Women	Unstd. coeff. (b)	Std. error	Std. coeff. (beta)	p-value
Control - Shared childcare	-3.526	1.155	-0.134	0.002
Gender role ideology model				
Gender discrimination in primary socialization	0.953	0.323	0.128	0.003
Egalitarianism of parents in the division of housework	4.981	0.993	0.219	<0.001
Religiosity	0.252	0.518	0.026	0.627
Religiosity - partner	-0.275	0.474	-0.031	0.562
Resource and power perspective				
GSEI Index	-0.609	0.284	-0.108	0.033
Education	0.099	0.355	0.016	0.781
Education - partner	0.533	0.339	0.084	0.117
Model				
Constant	32.561	3.072		<0.001
R^2 =	0.103			
F-ratio =	7.072	p < 0.001		
SEE =	9.526			
N =	503			

Modeling typical men's mental tasks (Table 3), conducted on a subset of 453 men, explained 15% of the variance in the dependent variable. A higher score on the dependent variable indicated that women engaged more in these typical men's mental tasks, while men work less of

them.

The model shows that having children does not have an effect on performing typical men's mental tasks. Three out of four indicators of gender role ideology model were statistically significant. Men who had an egalitarian upbringing, characterized by no distinct rules for girls and boys during their upbringing (β = 0.153; p = 0.001) exhibited lower engagement in typical men's mental tasks. Similarly, men raised in families with an egalitarian division of household chores between parents (β = 0.229; p < 0.001) also reported lower mental load. Additionally, less religious men experienced reduced mental load for traditional mental tasks (β = -0.174; p = 0.004). One out of three indicators of resource and power perspective was statistically significant. Men whose partners had a superior relative socioeconomic relationship (GSEI index) (β = -0.236; p < 0.001) exhibited lower engagement in typical men's mental tasks.

Notably, religiosity of men's partners, as well as the level of education of men and their partners, were not statistically significant predictors for typical men's mental tasks.

Table 3. Effect of gender role ideology model, and resource and power perspective indicators on the **men's mental tasks** with the most significant gender gap

Independent variables - Men	Unstd. coeff. (b)	Std. error	Std. coeff. (beta)	p-value
Control - Shared childcare	-0.057	0.294	-0.009	0.845
Gender role ideology model				
Gender discrimination in primary socialization	0.360	0.104	0.153	0.001
Egalitarianism of parents in the division of housework	1.376	0.267	0.229	< 0.001
Religiosity	-0.434	0.151	-0.174	0.004
Religiosity - partner	0.170	0.157	0.065	0.279
Resource and power perspective				
GSEI Index	-0.386	0.086	-0.236	0.000
Education	0.176	0.104	0.096	0.089
Education -	-0.027	0.103	-	0.795

partner		0.015	
Model			
Constant	5.896	0.873	$<$).001
$R^2 =$	0.146		
F-ratio =	9.479	p < 0.001	
SEE =	2.719		
N =	453		

Discussion

The study aimed to understand why there are differences in mental tasks between men and women, emphasizing tasks characterized by pronounced gender imbalances. By exploring this phenomenon, we aim to shed light on the underlying causes and dynamics driving the disparities in the distribution of mental labor tasks.

Results unveil significant gender disparities in both the types of mental tasks and the factors influencing these imbalances. Based on two research questions, our analysis was organized into two sections: the identification and description of mental tasks with the largest gender gap, and gender-specific multivariate models illuminating the contributing factors.

Our identification and description of mental tasks with the largest gender gap align with the gender role ideology model. This model posits that beliefs and attitudes about gender roles influence the division of household labor. The findings resonate with the traditional gender ideologies inherent in certain mental tasks. The descriptive investigation of 74 distinct mental tasks revealed a striking gender gap in 19 tasks, with a gap exceeding 50% for 16 typical women's tasks and three typical men's tasks. These gender discrepancies are particularly pronounced in tasks associated with cleanliness, knowledge and planning related to household goods and food, and the organization of social family life. Notably, typical women's mental tasks encompass a spectrum of household management skills, including recognizing the need for bedding changes, understanding proper laundry care, and planning cooking times. In contrast, the mental tasks associated with men predominantly revolve around car maintenance. They are muchfewer in number, whichhighlights a substantial gender asymmetry in the number of responsibilities. These typical men's mental tasks also echo the traditional masculine domain associated with the gender role ideology model. The gender gap in mental labor here reflects a historical adherence to traditional roles where men are assigned responsibilities linked to mechanical and technical domains [20].The quantity of mental tasks and the need for their continuity also make a difference in assumed consequences of mental labor among our participants. We believe that it is possible to infer on the presence of mental load in the case of women, whereas for men, whose mental tasks are fewer, less time-consuming, and less demanding, we lack evidence supporting the presence of mental load.

Our gender-specific multivariate models aimed to unravel the factors contributing to the

observed gender gaps in mental load. Their interpretation draws on both the resource and power perspective and the gender role ideology model. Having children, being a controlled variable in both models, is associated with a reduction in the involvement of men and an increase in the involvement of women in typical women's mental tasks however; it does not have an impact on performing typical men's mental tasks.This finding can be explained by the fact that the types of tasks predominantly performed by women tend to increase in families with children. This is due to an increased need for cleanliness maintaining, food preparation, monitoring important events, etc. Meanwhile, the demand for tasks related to car maintenance remains the same regardless of having children.

Controlling for childcare, the model forwomenrevealed that only 10% of the variance in the dependent variable could be explained.Both theoretically posited models play a role in explaining mental load, although the gender role ideology model has proven somewhat more successful in this regard with two predictors (compared to one from the resource and power perspective), and with stronger effect sizes (although none of the effects is strong). Egalitarian upbringing, an egalitarian division of household chores between parents and a better relative socioeconomic statusthan partners' were associated with reduced mental load for women. Intriguingly, religiosity did not influence women's mental labor, setting it apart from the model for men.

The directions of the established relationships within the subsample of women align with the theoretical propositions of both theoretical explanations. Specifically, according to the gender role ideology model, it was expected that a gender egalitarian upbringing, or the absence of gender-based discrimination against children in the family, as well as growing up in a family with a gender egalitarian model, i.e., parents who equally shared household chores, would lead to a more equal distribution of mental load between partners, even in the case of traditional women's tasks.Despite theoretical expectations, religiosity (of either women or their partners) did not prove to be a statistically significant predictor of performing typicalwomen'smental tasks in the household.The theoretical perspective of resource and power expected an association with the relative socioeconomic status of women compared to their partners, as well as the level of education of women and their partners. Only one out of three indicators of the resource and power perspective was statistically significant, and it was the weakest significant predictor in the model. Women with a better relative socioeconomic status compared to their partners exhibited lower engagement in typical women's mental tasks, while the levels of education of women and their partners were not statistically significant predictors for typical women's mental tasks.

Formen, the model explained a somewhat greater amount of variance than for women, but still not much (15%). Men with an egalitarian upbringing, that is,a background in families with an egalitarian division of household chores between parents,reported lower involvement in typical men's mental tasks. Less religious men also experienced reduced mental involvement in traditional male tasks. Men whose partners have superior socioeconomic statusreported lower involvement in typical men's mental tasks.

The directions of the established relationships within the subsample of men align with the

theoretical propositions of gender role ideology model. It was expected that a gender egalitarian upbringing (the absence of gender-based discrimination against children in the family), as well as growing up in a family where parents equally shared household chores, would lead to a more equal distribution of mental labor between partners, even in the case of traditional men's tasks. These men, by virtue of their upbringing and relational dynamics, seem to resist traditional gender norms associated with men's mental tasks. Also, the finding that less religious men engage less intraditionally male mental tasksaligns with the previous findings that Christian religious beliefs can serve to perpetuate unequal patriarchal structures and expectations resulting in an unequal gendered distribution of mental labor[14].

Although the model for typical men's mental tasks has an even greater number of predictors from the gender role ideology model than the model for women, the strongest predictor is from the resource and power perspective: the relative socioeconomic status of the partner.

The finding that men with a lower relative socioeconomic status (SES) in comparison to their wives exhibited lower engagement in typical men's mental tasks is at first sight contrary to the theoretical expectations of the power and resource perspective. According to this theory, men with less power in a relationship should be expected to perform more mental labor, not less.However, in this study, we did not analyze mental labor in general; instead, selected aspects of traditionally male mental labor related to car maintenance were examined. Thus, the lower involvement of men with less power than their partners in traditionally male household tasks, likely also implies their greater engagement in the remaining, traditionally female household tasks. However, this assumption needs further exploration and support with data.This only demonstrates how it is not advisable to use the resource and power theory to explain gender gap in mental load in households without considering certain specificities of mental labor. Additionally, the null effect of education on the gender gap in typical male and typical female mental labor emphasizes that educational attainment, for both respondents and their partners, does not contribute to the observed disparities. This finding also underscores the nuanced nature of gendered mental labor, influenced by factors beyond traditional indicators of socio-economic status and educational background.

Our findings confirm the main ideas of the power and resource perspective only on the subsample of women but are completely opposite on the subsample of men. We even dare to draw a distant conclusion that this theoretical perspective is tailored to favor gender inequality to the benefit of men and to the disadvantage of women. When applied to the gender-reversed direction of influence, it loses its explanatory power. This is in line with some existing criticismsof the power and resource perspective[31], which argue that the decisionist conception of power in the resource theory approach has limitations, as it overlooks the importance of ideological and cultural factors, particularly gender, in shaping power dynamics in marriages. One study [31]highlighted the significance of male authority in marital negotiations among heterosexual couples, which is not adequately addressed by the resource theory approach. It explains how the resource theory approach to the balance of power in marriages tends to overlook the importance of ideological and cultural factors, i.e. gender, in reinforcing or

counteracting the effects of differences in financial power and resources or of economic equality between spouses. We argue that the resource and power perspective tends to focus on explicit conflicts over the division of labor and overlooks hidden aspects of power that shape negotiations between spouses. The main limitations of the resource theory approach include its neglect of ideological and cultural factors, hidden aspects of power, male authority, and the role of gender in power dynamics within marriages.

Study limitations

There are several limitations to this study. First, in this paper, we focused only on specific aspects of mental work where gender differences are most prominent. Thus, our focus was on typical male and typical female mental work in households. There are numerous other tasks within the realm of mental work, some of which are also gender imbalanced but to a lesser extent than our criterion (50% difference), while others are relatively gender-equitable. A similar analysis of two theoretical orientations in this study, encompassing other tasks where mental work is more equitably distributed, could provide different insights into potential predictors of their gender distribution.

Second, the diversity of mental tasks included in this study may result in different perceptions and weights assigned to individual tasks. Some mental tasks may be more challenging to precisely define and measure compared to others.

Third, our study is based on self-report measurements by our respondents. Data collected through self-reported measurements, such as surveys, may be subject to subjective interpretations, social desirability and recall biases of respondents[32]. Reliance on self-reported data can impact result accuracy.

Forth, although this study identifies associations between certain factors and mental tasks with the largest gender gap, causal relationships cannot be inferred. Other factors not included in this analysis probablyalso play an important role in shaping differences and gender inequality in mental labor.

Implications for Future Research and Policy

The integration of theoretical frameworks into our discussion emphasizes the need for a comprehensive understanding of the multifaceted nature of gender disparities in mental labor. Future research should consider deeper analysesof the specific mechanisms through which resource and power dynamics, as well as gender ideologies, influence the allocation of mental tasks. Additionally, the adaptation of these theoretical frameworks to the realm of mental labor opens avenues for exploring the complex interplay between invisible cognitive and emotional tasks and socio-cultural expectations from men and women.

Policy implications drawn from these results and theoretical considerations include interventions aimed at challenging traditional gender roles, promoting egalitarian values in upbringing, and supporting the equitable distribution of both physical and mental labor within households. Acknowledging the impact of religious beliefs and upbringing on mental labor suggests that interventions should be tailored to the socio-cultural context to effectively address gender disparities.

Conclusion

The findings of this study highlight the complex interplay of upbringing, socioeconomic factors, and personal beliefs in shaping gender inequalities in mental load. The persistent gendered inequalities in performing mental tasks in the household emphasize the societal problem of the inequitable distribution of unpaid labor, and highlights the significance of examining these dynamics within the context of gender roles.

Typical women's mental tasks, which revolve around cleanliness, household goods, food-related knowledge, and the organization of social family life, reflect the enduring influence of traditional gender norms. The substantial gender gap observed in mental tasks provesthe existence of deeply ingrained societal norms and expectations surrounding domestic responsibilities.

The disproportionate burden on women in tasks related to household management implies a need for a reevaluation of societal expectations and a more equitable distribution of mental labor. This emphasizes the importance of addressing and challenging traditional gender roles to achieve a fairer distribution of responsibilities within the household.Policy implications may include targeted efforts to challenge traditional gender roles, promote egalitarian values in upbringing, and support the equitable distribution of mental labor within households.

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