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Personality and the Dynamics of Marriage: A Structural Interpretation

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Abstract

This paper examines how personality shapes intra-household bargaining, marital stability, and the allocation of resources within marriages. We use rich data from the HILDA Survey that combines information on spouses' personalities, wages, time use, and marital histories. In the data, personality is strongly associated with labor-market productivity, marriage and divorce patterns, and the division of paid work and childcare within couples. To interpret these patterns, we estimate a life-cycle collective household model with limited commitment and endogenous marriage and divorce. Within this framework, personality affects: individual wage processes, the quality of marital matches, and preferences over home production. We use the estimated model to quantify the mechanisms through which personality generates heterogeneity in household behavior. The results show that personality matters not only through wage differences but also by altering spouses' outside options and the set of feasible allocations. Counterfactual simulations highlight how personality influences specialization patterns, the evolution of bargaining power over the life cycle, and the way welfare losses from adverse shocks are shared between spouses.

JEL Classification: D10, D13, D91, J12, J22, R20

Keywords : Marriage, Limited Commitment, Personality, Intra-household Bargaining

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1 Introduction

Families differ sharply in their marital stability and in the environments they provide within the household. Some couples remain stably married and invest heavily in shared time and resources; others experience separation or divorce and more unstable patterns of work and caregiving. These differences in family formation and within-household behavior are now recognized as important drivers of inequality in income, child outcomes, and adult well-being (Lundberg & Voena, 2023). Yet we still know relatively little about how persistent individual heterogeneity translates into systematic gaps in marital stability and intra-household allocations. Traditional household models attribute differences in couples' outcomes largely to observables such as education, earnings, or socioeconomic background (Browning, Chiappori, & Weiss, 2014). A growing body of evidence, however, shows that psychological traits may influence whom people marry, how much they earn, and how they allocate time between market work and family life (Dupuy & Galichon, 2014; Heckman, Galaty, & Tian, 2023).

This article studies how personality shapes marital stability and family decisions, and through which economic channels these effects operate. We do so using rich panel data on couples' personalities, labor-market outcomes, and time use with a life-cycle collective household framework with limited commitment, in which spouses can periodically reconsider whether to stay together or separate. This allows us to quantify how much of the observed heterogeneity in household behavior and marital outcomes can be traced back to personality. The framework further disentangles whether differences across couples mainly reflect personality-driven gaps in wage productivity, in preferences over childcare time, or in the quality of matches formed in the marriage market. We then use the model to show how personality drives intra-household bargaining power, the likelihood and implications of divorce, and the distribution of welfare between spouses.

We draw on the Household, Income and Labour Dynamics in Australia (HILDA) Survey, a rich, nationally representative panel that follows men and women over time. The panel tracks both couples and singles and collects information on labor supply, childcare time, marital history, intrahousehold decisions, and wages at the individual level. Crucially, the HILDA also measures the Big Five personality traits (Goldberg, 1992). Using clustering on this set of observed traits, we assign men and women to personality types already validated in the psychology literature (Block, 2014). The first personality type corresponds to individuals who score relatively high on all five traits, while the second type captures the opposite configuration. These types provide a compact way to bring personality into the model while preserving economically meaningful variation across individuals and marriages.

The first part of the paper documents three sets of reduced-form patterns. First, hourly wages differ across personality types by around 2—3%, on average, in line with recent evidence (Flinn, Todd, & Zhang, 2025). Second, predictable heterogeneity in how individuals allocate time between market work and childcare generates meaningful variation across personality types, on the order of 1—2 hours per week per spouse. Third, family-formation dynamics vary systematically with personality: marriage hazards differ between the two gender-specific types by roughly 20—40%, and divorce hazards for women differ by about 40% across types, consistent with prior results (Lundberg, 2012). Taken together, these patterns suggest that personality captures persistent heterogeneity that affects both the resources couples bring to marriage and the constraints they face once married.

We then build and estimate a dynamic household model to rationalize these patterns. The framework features endogenous marriage and divorce, collective decision-making with limited commitment, and joint home production through parental time. In every period, individuals decide how much time to allocate to market work and childcare, as well as their private consumption and savings. Each time period, singles meet potential partners and must decide whether to get married or remain single. Within marriages, there exists a renegotiation process in response to changes in outside options, which may trigger divorces. Personality enters the model through three channels that are tightly guided by the data: (i) the wage process, where personality types differ in level and volatility of life-cycle earnings; (ii) preferences for time investments in children, where personality affects how much utility spouses derive from home-produced output; and (iii) expected match quality, where personality combinations at the couple level shift the average surplus from being married. Under limited commitment, these primitives jointly determine the path of intra-household bargaining, the allocation of time and consumption, and the probability that participation constraints bind and trigger divorce (Mazzocco, 2007).

Using the Simulated Method of Moments (McFadden, 1989), we identify and estimate our household model that matches the key patterns in time use and marriage-market outcomes across personality types, and yields interpretable structural primitives. Personality differences are associated with higher wage paths, stronger preferences for children, and higher expected marital surplus in some marriages, but they also strengthen spouses' outside options, making marriages between partners with similar types more fragile. A structural decomposition shows that roughly 44% of the overall impact of personality on divorce, bargaining power, and time allocation operates through wage heterogeneity, 33% through match quality, and 22% through preferences for children. These results confirm that personality shapes outside options and, in turn, the scope for intra-household insurance and cooperation. We further adapt an Oaxaca–Blinder decomposition of the bargaining power to show how personality-driven differences in wages, match quality, and child preferences map into systematic differences in female bargaining power across marriage types.

Finally, we use the estimated model to study how the personality composition of a marriage affects its ability to absorb adverse shocks. We compare responses across household types when we introduce two shocks—a permanent decline in men's wages and a persistent deterioration in match quality—while keeping all other parameters constant. The counterfactuals reveal a central insight: personality fundamentally alters the scope for intra-household insurance by shaping both the level of marital surplus and the sensitivity of spouses' outside options. Personality combinations aligned with higher surplus and more flexible reallocations of time and consumption also tend to strengthen outside options, making participation constraints more likely to bind when conditions worsen. By contrast, personality combinations associated with lower surplus also weaken outside options, which can make relationships more resilient to shocks and allow more insurance within marriage. In welfare terms, wage shocks generate within-couple gaps in consumption-equivalent losses that can exceed 15 percentage points in favor of women, whereas match-quality shocks push welfare in the opposite direction, by up to 7 percentage points against women.

This article suggests that personality heterogeneity is a key determinant of how couples make decisions and how resilient their marriages are to shocks, and that it interacts with limited commitment in economically meaningful ways. By tracing the effects of personality through wages, preferences, and match quality, we show that it helps determine who acts as the effective insurer within the household and how the welfare costs of economic versus relational shocks are distributed between spouses.

Contributions to the Literature—The contributions of this paper are twofold. First, our paper contributes to the growing literature on the economics of personality traits, or non-cognitive skills more broadly, and their relevance to explain economic behavior (for recent revisions, see Borghans, Duckworth, Heckman, and Ter Weel (2008); Heckman, Jagelka, and Kautz (2021); Heckman et al. (2023)). Existing work has mostly focused on labor-market outcomes such as wages and earnings (Heckman, Stixrud, & Urzua, 2006; Mueller & Plug, 2006; Fletcher, 2013), occupational choices (Todd & Zhang, 2020), job search and wage bargaining (Flinn et al., 2025), or team production in the workplace (Deming, 2017). A smaller strand brings personality into family contexts, studying intrahousehold bargaining (Flinn, Todd, & Zhang, 2018; Fernández, 2025), sorting and partner preferences in marriage markets (Dupuy & Galichon, 2014; Lippmann & Surana, 2025), or the association between traits and marriage and divorce (Lundberg, 2012). The closest papers to ours are Flinn et al. (2018), who develop a static intra-household model with personality but abstract from endogenous marital dynamics over the life cycle, and Dupuy and Galichon (2014), who study sorting on personality in a matching framework without modeling joint decisions within marriage. By embedding personality into a dynamic collective model with limited commitment—where wages, match quality, and individual preferences jointly determine specialization, bargaining, and marital stability—we bridge these approaches and connect the personality literature to central questions in family economics and the distribution of welfare within households. In addition, we contribute new empirical evidence by documenting how individual differences in personality types are systematically related to time use and marriage-market outcomes, and how these individual gaps cumulate into systematic variation across couple types.

Second, we contribute to the dynamic household literature on intra-household decision-making under limited commitment (for recent revisions, see Chiappori and Mazzocco (2017); Theloudis, Velilla, Chiappori, Giménez-Nadal, and Molina (2025)). This work has examined the effects of divorce laws (Voena, 2015; Reynoso, 2018), insurance and risk-pooling (Ligon, Thomas, & Worrall, 2002), marriage and cohabitation choices (Blasutto & Kozlov, 2020; Blasutto, 2024), welfare reforms (Low, Meghir, Pistaferri, & Voena, 2023), housing demand (De Rock, Kovaleva, & Potoms, 2023), income taxation (Bronson, Haanwinckel, & Mazzocco, 2024), and children's skills formation (Verriest, 2024). We contribute to this literature by showing that personality shapes not only bargaining power but also the set of feasible allocations through its impact on outside options and marital surplus. Methodologically, our model builds on Low et al. (2023), with the main innovation being the incorporation of personality-driven heterogeneity into a collective dynamic framework. This extension treats psychological differences as a first-order driver of marital stability, the division of gains from marriage, and the transmission of policy changes within families—issues that are central to understanding inequality and the aggregate consequences of shocks in modern economies.

Outline of the Paper—The rest of the paper is organized as follows. Section 2 describes the sample and presents the motivating data facts linking personality to time-use decisions, wages, and marital stability. Section 3 introduces our structural framework of collective choices under limited commitment. Section 4 discusses the main identification arguments. Section 5 describes the estimation strategy and presents the baseline structural results. Section 6 quantifies the effects of personality. Section 7 simulates counterfactual scenarios to study the role of personality in shaping marriage dynamics, bargaining power, and welfare. Section 8 concludes.

2 Data

The empirical facts presented in this section, as well as the estimation of our structural model presented in forthcoming sections, will be based on information drawn from the Household Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Survey is a representative household-based panel administered by the Department of Social Services of the Australian Government. This ongoing annual panel began in 2000.

2.1 Sample and Summary Statistics

To study the interaction between personality and marriage, we consider an unbalanced panel of men and women from 2001 to 2019. Through its Person Questionnaires, the HILDA Survey gathers detailed information at the individual level about market wages, time use decisions (e.g., weekly hours in market work and childcare), marital history, and intrahousehold decision-making (e.g., who decides on making large household purchases). Crucially, the HILDA Survey also collects data about the Big Five personality traits of adult individuals living in a household. This personality questionnaire is implemented over five waves and was designed to summarize an individual's personality into five overarching dimensions: agreeableness, conscientiousness, emotional stability, openness to experience, and extraversion (Goldberg, 1992). As explained below, throughout the analyses, we work with personality types constructed based on the Big

Five traits.[1]

We restrict the sample to individuals who at the time were surveyed were between 18 and 65 years old; married, single, or divorced; part of a household with at least one partner or spouse participating in the labor market; and not living with any other adult other than the current partner. Our analysis focuses on the behavior of married couples with children, therefore, we exclude from the sample childless couples. The sample consists of 5265 men and 5194 women who are followed over time. The total number of observations (individuals across time) is 63939. From the total of observations, 52.12% correspond to married couples.

Table 1 provides summary statistics for the main variables. Overall, men in our sample are slightly older and have fewer children than women. Proportionally, women are less often married and more often divorced than men. As expected, men devote more hours to market work, fewer to childcare, and earn higher wages than women. In terms of personality traits, women score higher than men on conscientiousness, extraversion, and agreeableness. These figures are in line with studies using Australian data (Flinn et al., 2018).

2.2 Personality Types

Throughout the analyses, we work with personality types.[2] These types are computed using a clustering algorithm that is extensively explained in Appendix B. As shown in Table 2, we obtain two personality types that summarize opposite configurations of the

[1]Personality information is collected in waves 5, 9, 13, and 17. Following the literature, we impute their values in waves where personality is not observed by calculating the average of the observed individual values. This imputation is based on the fact that personality traits are relatively stable in adult ages (Cobb-Clark & Schurer, 2012, 2013; Elkins, Kassenboehmer, & Schurer, 2017; Todd & Zhang, 2020; Fitzenberger, Mena, Nimczik, & Sunde, 2022; Cobb-Clark, Kong, & Schildberg-Hörisch, 2023). These traits largely stabilize (both in population mean levels and in rank-order) by around age 30 (Heckman et al., 2021). Recently, also using a panel of Australian individuals from the HILDA Survey, Cobb-Clark, Lepinteur, and Menta (2025) suggest that personality traits are deeply rooted and persist over time, even under unstable circumstances. Figure 3, 4, and 5 in Appendix A present evidence that personality traits remain stable throughout adulthood in our sample. Not only do the average scores across genders remain relatively stable over waves (Figure 3), but also the distributions of within-person changes in raw trait scores over time are centered near zero (Figure 4). Also, the overall trajectories of these traits over time are remarkably similar across marital status, number of children, and type of employment (Figure 5).

[2]The typological approach to personality traits is widely used in psychology (Gerlach, Farb, Revelle, & Nunes Amaral, 2018) and economics (Todd & Zhang, 2020; Flinn et al., 2025). This approach provides valuable insights into individual differences across configurations of the Big Five traits. Computationally, this approach is also appealing as it significantly reduces the size of the state space in the structural estimation.

Table 1: Summary Statistics

	Men		Women	
	Mean	Std. dev.	Mean	Std. dev.
Age	38.94	11.88	37.31	11.53
Schooling	12.88	2.21	13.16	2.28
Number children	1.05	1.06	1.10	1.05
Married	0.55	0.49	0.48	0.49
Never married	0.34	0.47	0.35	0.47
Divorced	0.10	0.30	0.16	0.36
Weekly market work hours	40.70	11.92	29.40	12.40
Weekly childcare hours	6.69	9.92	14.44	21.29
Hourly real wage rate (AUD/hour)	30.49	15.48	26.79	12.80
Personality traits:				
Agreeableness	5.14	0.80	5.63	0.72
Conscientiousness	4.99	0.90	5.18	0.95
Openness	4.33	0.94	4.28	0.98
Extraversion	4.32	0.97	4.59	1.08
Emotional stability	5.11	0.92	5.10	0.97
Observations	32826		31113	

NOTE—Statistics are computed by pooling all HILDA waves from 2001 to 2019. Weekly market work hours correspond to weekly hours in paid employment. Weekly childcare hours correspond to weekly hours playing with children, helping them with personal care, tutoring and supervising them, or getting them to school and other activities. Wages are deflated using the consumer price index, with 2010 serving as the base year.

Big Five traits. The first type is associated with positive values in all five traits, whereas the opposite pattern holds with the second type. The smallest difference between types is observed in openness.[3]

Table 3 shows the distribution of personality types across gender and marriages. Looking at the gender distribution by personality type, type 1 is more common among women (62.6%) than men (45.2%), whereas type 2 predominates among men (54.7%) versus women (37.3%). In the marriage-type panel, same-type couples account for 53.7% of mates, slightly exceeding the 48.8% one would expect under random matching (i.e., $(0.62 \times 0.45) + (0.37 \times 0.54)$). Cross-type matches are notably asymmetric: type-2 women marry type-1 men 32.0% of the time, while type-1 women marry type-2 men only 14.3%.[4]

[3]Personality types with opposing patterns on the Big Five traits have been found elsewhere (Robins, John, Caspi, Moffitt, & Stouthamer-Loeber, 1996). In psychology, this pattern has been related to Block (2014)'s theory of ego functioning and resiliency; see related discussions in Asendorpf, Borkenau, Ostendorf, and Van Aken (2001), Specht, Luhmann, and Geiser (2014), and Gerlach et al. (2018).

[4]The matching patterns in our sample based on personality types are in line with recent evidence. A large-scale meta-analysis suggests that assortative mating in personality is present across studies but

Table 2: Personality Types

	Type 1	Type 2
Cluster centroids:		
Extraversion	0.24	-0.42
Openness to experience	0.02	-0.04
Agreeableness	0.35	-0.62
Conscientiousness	0.32	-0.58
Emotional stability	0.38	-0.67

NOTE—Personality types were constructed by K-means clustering with hierarchical centroids as starting values for the algorithm (Lattin, Carroll, & Green, 2003). Details about the clustering algorithm and validation of the clustering solution are provided in Appendix B; Figure 7 in that appendix illustrates differences between types across all traits.

Table 3: Sample Distribution of Personality Types

	Type 1	Type 2
Gender distribution:		
All men	45.28%	54.72%
All women	62.69%	37.31%
Single men	42.59%	57.41%
Single women	59.34%	40.66%
Marriage types:		
(f_1, m_1)	32.27%	
(f_1, m_2)	14.28%	
(f_2, m_1)	32.03%	
(f_2, m_2)	21.41%	

NOTE—This table reports the empirical distribution of the two estimated personality types in the sample. Type 1 and Type 2 correspond to the clusters obtained by K-means clustering. Shares for men and women include both singles and individuals in couples. "Single" refers to individuals not observed in a couple household. The bottom panel shows the distribution of couple types (f_i, m_j) formed by combining the female and male types.

is generally weak (Horwitz, Balbona, Paulich, & Keller, 2023). Dupuy and Galichon (2014) claims that personality could matter for marital preferences indirectly through their interactions with other attributes. Also, the sorting patterns indicate that type-2 women and type-1 men are disproportionately married, while type-1 women and type-2 men are disproportionately single. In some settings, if personality traits influence marriage and divorce differently for men and women, this may suggest that production specialization within marriage may be an important source of marital surplus (Lundberg, 2012).

2.3 Data Facts

In this subsection, we use reduced-form regressions and hazard models to examine whether personality types—at the individual and couple level—are relevant predictors of hourly wages, the allocation of time to market work and childcare, and marital stability. These data facts will directly inform the components of our subsequent structural household model.

Data Fact 1—*Personality type 1 is associated with higher hourly wages for both women and men.*

Table 4 reports OLS estimates where the dependent variable is log hourly wages, separately for women (columns 1–3) and men (columns 4–6). The key regressor is an indicator for being classified as personality type 1 (type 2 is the reference). Moving from column (1) to (3) for women, and from (4) to (6) for men, we add controls for education, age, marital status, number of children, occupation, region, and year fixed effects. The estimates show that personality type 1 is associated with higher wages for both genders, and that this association remains statistically significant and economically meaningful even after introducing the full set of controls. Across all specifications, type-1 individuals earn significantly higher wages. With the full set of controls (columns 3 and 6), the implied wage premium of type 1 relative to type 2 is around 2–3% for both women and men. These magnitudes are consistent with existing evidence on labor-market returns to personality traits.[5]

Data Fact 2—*Type-1 individuals spend more hours in market work and childcare, and these individual differences translate into systematic gaps across marriage personality types.*

Table 5 shows that personality is systematically related to weekly hours worked in the market and hours devoted to childcare. At the individual level, type-1 adults both work more and invest more time in children than type-2 adults. Conditional on education, age, family composition, occupation, wages, and region-year fixed effects (columns 3 and 6), type-1 women work about half an hour more per week in the market and almost one additional hour in childcare; type-1 men work roughly 0.4 extra market hours and 0.7 extra childcare hours per week. These associations are statistically significant even after

[5]For instance, Flinn et al. (2025) suggest that higher level of emotional stability or openness to experience are associated to 1—4% higher hourly wages. In their model, differences in men—women personality trait levels explain a significant portion of the gender wage gap, as previously documented by Blau and Kahn (2017).

Table 4: Association Between Personality and Hourly Wages by Gender—Individual Types

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:		*Log women's hourly wage*			*Log men's hourly wage*	
$\mathbb{1}${personality type 1}	0.087***	0.029***	0.021***	0.072***	0.033***	0.022**
	(0.011)	(0.009)	(0.008)	(0.013)	(0.011)	(0.010)
Education	–	✓	✓	–	✓	✓
Age	–	✓	✓	–	✓	✓
Marital status	–	–	✓	–	–	✓
Number of children	–	–	✓	–	–	✓
Occupational dummies	–	–	✓	–	–	✓
Region FE	–	–	✓	–	–	✓
Year FE	–	–	✓	–	–	✓
Mean wage (AUD/hr)		26.79			30.49	
Observations		24976			28251	

NOTE—This table reports OLS estimates of the association between being classified as personality type 1 (base category: personality type 2) and log hourly wages for women and men. Each column adds additional controls as indicated. Standard errors are clustered at the individual level. The mean hourly wage for women and men is shown for reference. All estimates use the working-age sample with non-missing wage, personality, and covariates information.

conditioning on a rich set of covariates. At the couple level, Table 6 shows that these individual patterns aggregate into clear differences across marriage types. Relative to the benchmark where both spouses are type 1, couples in which both are type 2 devote less time to both market work and childcare: type-2 wives spend about half an hour less per week in market work and 1.3 fewer hours in childcare, while type-2 husbands work roughly 1 hour less in the market and 1 hour less in childcare. Mixed-type couples sit in between. In marriages where only the wife is type 2, (f_2, m_1), women do about 2 fewer hours of childcare per week, whereas in marriages where only the husband is type 2, (f_1, m_2), men allocate around 0.9 fewer hours to market work and 0.7 fewer hours to childcare. These effects are robust to the inclusion of a rich set of covariates.[6]

[6] These results are consistent with evidence showing that personality traits may shape labor supply decisions—for example, emotional stability, openness, and conscientiousness are associated with hours worked and job-spell duration (Todd & Zhang, 2020; Flinn et al., 2025)—and with studies showing that spouses' traits help determine intrahousehold time allocation (Flinn et al., 2018; Fernández, 2025). Our results also relate to psychology work documenting that agreeableness, emotional stability, and openness predict greater parental childcare involvement (Prinzie, Stams, Deković, Reijntjes, & Belsky, 2009; Prinzie, de Haan, & Belsky, 2019). More broadly, our findings relates to studies focusing on the scope for specialization within marriage (Becker, 2009; Browning et al., 2014). Even as women's labor-force participation and educational attainment have risen and fertility has declined, persistent specialization patterns remain

Table 5: Association Between Personality and Time Use Decisions by Gender— Individual Types

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	*Women's weekly market hours*			*Men's weekly market hours*		
$\mathbb{1}$\{personality type 1\}	1.308***	0.525*	0.519*	0.950***	0.687***	0.423*
	(0.316)	(0.314)	(0.292)	(0.290)	(0.264)	(0.258)
Dependent variable:	*Women's weekly childcare hours*			*Men's weekly childcare hours*		
$\mathbb{1}$\{personality type 1\}	1.726***	1.245***	0.895***	0.836***	0.843***	0.710***
	(0.462)	(0.412)	(0.338)	(0.265)	(0.242)	(0.204)
Education	–	✓	✓	–	✓	✓
Age	–	✓	✓	–	✓	✓
Marital status	–	–	✓	–	–	✓
Number of children	–	–	✓	–	–	✓
Occupational dummies	–	–	✓	–	–	✓
Wage rate	–	–	✓	–	–	✓
Region FE	–	–	✓	–	–	✓
Year FE	–	–	✓	–	–	✓
Mean market work (weekly hours)		29.40			40.70	
Mean childcare (weekly hours)		14.44			6.69	
Observations		23646			27282	

NOTE—This table reports OLS estimates of the association between personality type and weekly hours spent in market work and childcare. The main regressor is an indicator for being classified as personality type 1 (base category: personality type 2). The first panel uses weekly market hours as the dependent variable, while the second panel uses weekly childcare hours. Each column sequentially adds the controls listed in the table. Standard errors are clustered at the individual level. Mean hours for each activity and gender are shown for reference.

Data Fact 3—*Type-1 individuals are more likely to marry and, once married, couples involving at least one type-1 partner are generally less stable.*

Table 7 reports hazards of marriage from estimated Cox duration models, showing that personality is systematically related to how often people marry.[7] Across all specifications, type-1 singles have a higher hazard of entering marriage than type-2 singles. With the full set of controls (columns 3 and 6), type-1 women are about 37% more likely to marry in a given period than type-2 women (hazard ratio 1.37), and type-1 men are about 17% more likely than type-2 men (hazard ratio 1.17). These gaps remain sizeable

(Gayle & Shephard, 2019; Lafortune & Low, 2023; Lafortune, Salisbury, & Siow, 2024), yet most of this work abstracts from how spouses' personality traits may shape both their capacity and their inclination to specialize.

[7] Refer to Appendix C for a detour on Cox models

Table 6: Association Between Personality and Time Use Decisions by Gender—Marriage Types

	(1)	(2)	(3)	(4)
Dependent variable:	*Women's weekly market hours*	*Women's weekly childcare hours*	*Men's weekly market hours*	*Men's weekly childcare hours*
(f_2, m_1)	-0.469	-1.967***	-0.258	0.093
	(0.535)	(0.688)	(0.372)	(0.372)
(f_1, m_2)	0.242	-0.419	-0.863***	-0.719**
	(0.424)	(0.539)	(0.286)	(0.290)
(f_2, m_2)	-0.501	-1.250**	-1.013***	-1.021***
	(0.488)	(0.633)	(0.331)	(0.0.312)
Full set of controls	✓	✓	✓	✓
Mean weekly hours	29.40	14.44	40.70	6.69
Observations	19574		28251	

NOTE— The table reports OLS estimates of the association between marriage personality types and weekly hours in market work and childcare for women and men. Each coefficient corresponds to a couple-type indicator (f_i, m_j), where f_i and m_j denote the woman's and man's personality types. The omitted category is (f_1, m_1), so all effects are relative to couples in which both partners are type 1. Standard errors are clustered at the individual level. Mean weekly hours for each activity are reported for reference. The full set of controls corresponds to the independent variables specified in columns (3) and (6) of Table 5.

after conditioning on education, age, fertility, occupation, wages, and region–year fixed effects. Table 8 turns to the hazard risk of divorce, showing that personality matters asymmetrically by gender. Type-1 married women face a significantly higher divorce hazard than type-2 women across all specifications; with full controls (column 3), their hazard risk of separation is roughly 40% higher. For men, in contrast, the hazard ratios for type-1 are close to one and never statistically different from zero. Finally, Table 9 summarizes divorce hazards at the couple level. The omitted group is (f_2, m_2) couples, who are therefore the most stable benchmark. Relative to them, (f_1, m_1) couples and (f_2, m_1) couples have divorce hazards roughly 70—80% higher.[8]

[8] Our findings complement those of (Lundberg, 2012) and Dupuy and Galichon (2014) who claim that personality matters for marital surplus and the likelihood of divorce. Our results are also in line with psychology researchers suggesting that personality traits may drive marriage decisions, relationship quality, and marital dissolution (Barry, 1970; Robins, Caspi, & Moffitt, 2000; Back & Vazire, 2015).

Table 7: Estimated Marriage Cox Proportional Hazard Rates—Individual Types

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	*Single women's hazard of marriage*			*Single men's hazard of marriage*		
$\mathbb{1}$\{personality type 1\}	1.367***	1.647***	1.373***	1.327***	1.396***	1.167*
	(0.181)	(0.141)	(0.118)	(0.106)	(0.112)	(0.093)
Education	–	✓	✓	–	✓	✓
Age	–	✓	✓	–	✓	✓
Number of children	–	–	✓	–	–	✓
Occupational dummies	–	–	✓	–	–	✓
Wage rate	–	–	✓	–	–	✓
Region FE	–	–	✓	–	–	✓
Year FE	–	–	✓	–	–	✓
Observations (singleness spells)	3747	3747	3413	3555	3555	3132

NOTE— The table reports hazard ratios from Cox proportional hazard models estimating the association between personality type and the transition into marriage for single women and single men. The main regressor is an indicator for being personality type 1 (base category: personality type 2). A hazard ratio above one indicates a higher probability of entering marriage relative to type 2 individuals. Each specification adds the controls listed in the table. Standard errors are reported in parentheses. The sample consists of married individuals observed in ongoing singleness spells.

3 Model

In the previous section, we showed that personality is associated with wage gaps, distinct patterns of specialization in market work and childcare, and systematic differences in marriage and divorce hazards across individual and couple types. To rationalize these facts, we now introduce a structural life-cycle model in which marriage and divorce arise endogenously from households' dynamic decisions. In this framework, personality affects behavior only through three economic primitives: wage processes, preferences for children, and expected match quality. This structure lets us interpret the empirical differences across personality types as the outcome of heterogeneity in preferences, match quality, and the incentives for specialization and cooperation within marriage.

3.1 Overview and Primitives

Setting—Our framework integrates endogenous household formation and collective household choices under a limited commitment setting. The gender of an individual is

Table 8: Estimated Divorce Cox Proportional Hazard Rates—Individual Types

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	*Married women's hazard of divorce*			*Married men's hazard of divorce*		
$\mathbb{1}$ {personality type 1}	1.220*	1.395***	1.396**	1.044	1.135	1.041
	(0.133)	(0.153)	(0.206)	(0.106)	(0.118)	(0.119)
Education	–	✓	✓	–	✓	✓
Age	–	✓	✓	–	✓	✓
Number of children	–	–	✓	–	–	✓
Occupational dummies	–	–	✓	–	–	✓
Wage rate	–	–	✓	–	–	✓
Region FE	–	–	✓	–	–	✓
Year FE	–	–	✓	–	–	✓
Observations (marriage spells)	4979	4924	3339	4979	4922	3981

NOTE— This table reports hazard ratios from Cox proportional hazard models estimating the association between personality type and the risk of divorce for married women and married men. The main regressor is an indicator for being personality type 1 (base category: personality type 2). A hazard ratio above one indicates a higher probability of divorce relative to type 2 individuals. Each specification adds the controls listed in the table. Standard errors are reported in parentheses. The sample consists of married individuals observed in ongoing marriage spells.

Table 9: Estimated Divorce Cox Proportional Hazard Rates—Marriage Types

	(1)
Dependent variable:	*Married couple's hazard of divorce*
(f_1, m_1)	1.732**
	(0.386)
(f_1, m_2)	1.275
	(0.353)
(f_2, m_1)	1.772***
	(0.364)
Observations	2671

NOTE— This table reports hazard ratios from a Cox proportional hazard model estimating the association between couple personality types and the risk of divorce. Each coefficient corresponds to a couple-type indicator (f_i, m_j), where f_i and m_j denote the woman's and man's personality types. The omitted category is (f_2, m_2), so all hazard ratios are relative to couples in which both partners are type 2. A hazard ratio above one indicates a higher probability of divorce relative to this baseline. Standard errors are reported in parentheses. The sample consists of married couples observed in ongoing marriage spells.

indexed by $i \in \{m, f\}$. Time (t) is discrete. The model begins with married and single individuals at age 20 who work until age 55 and live until age 75. Men and women are endowed with an exogenous and stable personality defined by $\pi_{i,j}$ with $j \in \{1, 2\}$ indexing the two possible individual types. If a household is formed, its personality type is defined by π_J with $J \in \{1, \ldots, 4\}$ indexing the four possible marriage types. In every period, single agents have a certain probability of meeting a potential partner and must decide whether to get married or remain single. If a marriage occurs, we assume that couples act cooperatively, subject to limited commitment. This constraint implies a renegotiation process in response to changes in outside options. Married individuals can choose each period whether to divorce or not. Divorce occurs when participation constraints cannot be met, and household assets are divided based on individual negotiation. In every period, single and married individuals decide how much time to allocate to market labor and childcare, as well as their private consumption and savings. Figure 7 in Appendix D provides an overview and the timing structure of the model.

Constraints—In each period, individuals spend their available time on private leisure ($l_{i,t}$), market work ($n_{i,t}$), and childcare time ($h_{i,t}$):

$$T_{i,t} = l_{i,t} + n_{i,t} + h_{i,t}, \tag{1}$$

where $T_{i,t}$ are the total hours available to an individual, net of sleep time and personal care hours.

One hour of market work by individual i is associated with a wage defined as a standard Mincer equation with an additional personality component:

$$w_{i,t} = f_{i,t}(\mathbf{x}_{i,t}, \pi_{i,j}) + z_{i,t}, \tag{2}$$

where $\mathbf{x}_{i,t}$ is a vector of Mincerian characteristics, and $z_{i,t}$ are permanent wage shocks experienced by individuals. Over time, these innovations evolve as a random walk:

$$z_{i,t} = z_{i,t-1} + \zeta_{i,t}(\pi_{i,j}) \quad \text{with} \quad z_{i,1} = \zeta_{i,1}(\pi_{i,j}) \quad \text{and} \quad \zeta_{i,t}(\pi_{i,j}) \overset{\text{i.i.d.}}{\sim} N(0, \sigma^2_{\zeta^\pi}), \tag{3}$$

where $\zeta_{i,t}(\pi_{i,j})$ is an independent white noise process, representing productivity shocks. The wage process described by equations (2) and (3) captures the notion that household monetary resources may be partially explained by labor market returns to personality, as highlighted in the previous section.[9]

[9] Extended Mincer equations controlling for personality have been used elsewhere (Flinn et al., 2018;

Individuals accumulate assets over time ($A_{i,t}$) with an exogenous rate of return (r). In each period, couples can decide to divorce or not (D_t). If a married couple decides to divorce, the current household's assets (A_t^H) are split proportionally to the spouses' relative incomes. The total income of households is allocated to a Hicksian composite good used for household private consumption ($c_{i,t}$) with a price normalized to one. This gives rise to the following household budget constraints for singles and married households:

$$\begin{aligned} A_{i,t} + c_{i,t} &= (1+r)A_{i,t-1} + w_{i,t}n_{i,t} && \text{(singles)}, \\ A_t^H + c_{f,t} + c_{m,t} &= (1+r)A_{t-1}^H + w_{f,t}n_{f,t} + w_{m,t}n_{m,t} && \text{(couples)}. \end{aligned} \tag{4}$$

Preferences—The allocation and size of the household income depend on the preferences of individuals. These preferences are represented by a time-invariant and instantaneous utility function that is separable in each of its components. We assume that preferences take the form of a Constant Relative Risk Aversion utility function.[10]

In each period, single individuals derive utility from the consumption of private goods ($c_{i,t}$), the production of children ($Q_{i,t}$), and leisure time ($l_{i,t}$):

$$u_{i,t}(c_{i,t}, l_{i,t}, Q_{i,t}) = \frac{(c_{i,t})^{1-\gamma_c}}{1-\gamma_c} + \frac{(l_{i,t})^{1-\gamma_{i,l}}}{1-\gamma_{i,l}} + \tau_i \, Q_{i,t}, \tag{5}$$

with $\gamma_c \geq 0$ and $\gamma_{i,l} \geq 0$ the coefficients of relative aversion for private consumption and leisure time, respectively. Each individual has a utility with a common risk-aversion over consumption but gender-specific risk-aversion over leisure.

Preferences for couples include an additional component related to the utility of being married relative to being single (i.e., match quality). The utility function of a married individual is given by:

$$u_{i,t}(c_{i,t}, l_{i,t}, Q_t^H, \theta_t^H) = \frac{(c_{i,t})^{1-\gamma_c}}{1-\gamma_c} + \frac{(l_{i,t})^{1-\gamma_{i,l}}}{1-\gamma_{i,l}} + \tau_{i,t}(\pi_{i,J}) \, Q_t^H + \theta_t^H(\pi_J), \tag{6}$$

Todd & Zhang, 2020). The variance of the permanent income shock depends on both gender and personality. For simplicity, as in Low et al. (2023), we assume that the innovations in the income process are independent between married men and married women.

[10] In settings with dynamic collective decisions and intertemporal negotiation between partners, similar assumptions on preferences have been used elsewhere (Voena, 2015; Blasutto & Kozlov, 2020).

where $\theta_t^H(\pi_J) \stackrel{\text{i.i.d.}}{\sim} N(\mu_\theta(\pi_J), \sigma_\theta^2)$ corresponds to the taste for marriage of a household with personality type π_J^H. We allow personality to systematically shift the expected gains from marriage, consistent with the empirical patterns documented previously.[11]

The coefficient $\tau_{i,t}(\pi_{i,J})$ captures the gender-specific individual taste for home-produced child output within a couple, and is allowed to vary over time with the number of young children in the household. Specifically, we let:

$$\tau_{i,t}(\pi_{i,J}) = \bar{\tau}_{i,t}(\pi_{i,J}) \times \text{YoungKids}_t^H, \tag{7}$$

where YoungKids_t^H denotes the average number of children aged five or younger in the household at time t.[12]

The curvature parameters governing aversion to private consumption and leisure are the same as in the single household case.[13]

Child Production—In every period, marriages produce children with a technology of production defined by a Constant Elasticity of Substitution (CES) function that takes as input parental childcare time:

$$Q_t^H = \left[\psi h_{m,t}^\rho \; + \; (1-\psi) h_{f,t}^\rho\right]^{\frac{1}{\rho}}, \tag{8}$$

where $\psi \in (0,1)$ is the share or efficiency parameter representing each spouse's marginal productivity, and $\rho \leq 1$ is the elasticity of substitution between spouses' time inputs. We assume that the value of $Q_{i,t}$ for singles and divorced individuals can be potentially different from zero, i.e., $Q_{i,t} = h_{i,t}$, as we observe in the sample a fraction of one-parent

[11]Mainly for tractability, and in line with earlier work, our functional form separates material and non-material utility components (Browning et al., 2014); the same additive structure appears in (Eckstein, Keane, & Lifshitz, 2019; Blasutto, 2024). For alternative specifications and match-quality identification, see Brien, Lillard, and Stern (2006); Goussé, Jacquemet, and Robin (2017); Browning, Cherchye, Demuynck, De Rock, and Vermeulen (2024); Ciscato (2024). See Jagelka (2024) for an extended analysis on the mapping between personality and economic preferences.

[12]This formulation captures the fact that the marginal value of home-produced childcare is highest when young children are present, and that personality differences may amplify or dampen this valuation across couples, as suggested by our data.

[13]By assuming that personality enters preferences only after marriage, we focus our estimation on the margins where personality is most relevant: sorting, intra-household allocations, and renegotiation or match dissolution. This assumption keeps the model empirically tractable while highlighting personality-driven complementarities in marriage observed in the data.

individuals having children.[14,15]

3.2 Dynamic Problem of Households

Household Problem of Singles—If an individual enters period t as a single, and decides to remain in that state, she solves a single-agent problem choosing private consumption, labor supply, childcare time, and savings. In period $(t+1)$, the agent meets a potential partner of the opposite sex with probability λ_{t+1}, and she can decide whether to enter a marriage or remain single, with the potential partner having to agree on this as well. If the two individuals decide to start a relationship, the variable M_{t+1} will take the value 1 in the case of marriage and 0 otherwise. Below, we detail how meeting probabilities (λ) and decisions to marry (M) occur.

The choice set of singles is thus defined by $\mathbf{a}^S_{i,t} = (c_{i,t}, n_{i,t}, h_{i,t}, A_{i,t}, M_t)'$. The state space for singles is then defined by $\mathbf{\Omega}^S_{i,t} = (A_{i,t-1}, w_{i,t}, \pi_{i,j})'$. The value of singlehood for individual i at period t is determined by:

$$\begin{aligned} V^S_{i,t}(\mathbf{\Omega}^S_{i,t}) \; = \; \max_{\mathbf{a}^S_{i,t}} \Bigg\{ & u_{i,t}(c_{i,t}, l_{i,t}, Q_{i,t}) \; + \; \beta \mathbb{E}_{|\mathcal{I}^S} \Bigg\{ (1-\lambda_{t+1}) \left[V^S_{i,t+1}(\mathbf{\Omega}^S_{i,t+1}) \right] \\ & + \lambda_{t+1} \left[M_{t+1} \left[V^M_{i,t+1}(\mathbf{\Omega}^H_{t+1}) \right] \; + \; (1-M_{t+1}) \left[V^S_{i,t+1}(\mathbf{\Omega}^S_{i,t+1}) \right] \right] \Bigg\} \Bigg\} \end{aligned} \tag{9}$$

subject to

$$A_{i,t} \; + \; c_{i,t} \; = \; (1+r)A_{i,t-1} \; + \; w_{i,t} n_{i,t},$$

with β as the discount factor (which is the same for singles and couples), $\mathbb{E}_{|\mathcal{I}^S}$ denoting

[14] For instance, one-parent families with dependent children in Australia, as a proportion of all families, have typically represented around 10.5% since 2001 (Australian Bureau of Statistics, 2024).

[15] Some remarks about our child-production process are in order. We define Q as child production, but the setting is general enough to account for other definitions in the child-development literature, such as child quality (Del Boca, Flinn, & Wiswall, 2014). Moreover, the technology of household production is inherently static. For simplicity, we abstract from any possible dynamics in child production studied elsewhere, such as dynamic complementarities between a child's skills and investments (Heckman & Mosso, 2014; Cunha, Nielsen, & Williams, 2021). Moreover, the study of how parental personality could dynamically shape child development is beyond the scope of this paper. Since our focus is on potential complementarities in joint production, we adopt a straightforward CES production function with parental time inputs. Although simple, this form still allows us to accommodate a range of relationships between time inputs. Finally, if households allocate time to children ($h_{i,t} > 0$), the produced output is scaled by the taste parameter associated with children.

the conditional expectation operator with respect to the period t's information set of singles ($\mathcal{I}^S$), and $\mathbf{\Omega}_{t+1}^H$ the state space of marriages (which is defined below).

Household Problem of Married Couples—If two individuals of the opposite gender enter period t as a married couple and decide to stay married, they make Pareto-efficient decisions under limited commitment.[16] If individual participation constraints bind, partners divorce (i.e, $D_t = 1$). As agents live in a unilateral divorce regime, it is enough that one of the spouses wants to separate from their partner for the couple to divorce. The process that defines the decision to divorce (D) is described below.

The state space for married individuals is given by:

$$\mathbf{\Omega}_t^H = (A_{t-1}^H, w_{f,t}, w_{m,t}, \pi_{f,j}, \pi_{m,j}, \theta_t^H, \mu_{i,t-1})', \tag{10}$$

where $\mu_{i,t-1}$ is the (normalized) bargaining power for one of the spouses. Note that within-period bargaining weights enter the state space because spouses' participation constraints can make the household solution differ from the Pareto optimal allocation. The choice set of marriages is defined by $\mathbf{a}_t^M = (c_{f,t}, c_{m,t}, n_{f,t}, n_{m,t}, h_{f,t}, h_{m,t}, A_t^H, D_t)'$. The problem jointly solved by a marriage at period t is given by:

$$V_t^H(\mathbf{\Omega}_t^H) = \max_{\mathbf{a}_t^M} \Bigg\{ (1 - D_t)\Big\{ \mu_{f,t} u_{f,t}(c_{f,t}, l_{f,t}, Q_t^H, \theta_t^H) + \mu_{m,t} u_{m,t}(c_{m,t}, l_{m,t}, Q_t^H, \theta_t^H)$$
$$+ \beta \mathbb{E}_{|\mathcal{I}_t^H} \left[V_{t+1}^H(\mathbf{\Omega}_{t+1}^H) \right] \Big\} + D_t \Big\{ u_{i,t}(c_{i,t}, l_{i,t}, Q_{i,t}) + \beta \mathbb{E}_{|\mathcal{I}_t^S} \left[V_{i,t+1}^S(\mathbf{\Omega}_{i,t+1}^S) \right] \Big\} \Bigg\}$$

subject to

$$\begin{aligned} A_{t+1}^H + c_{f,t} + c_{m,t} &= (1 + r)A_t^H + n_{f,t} w_{f,t} + n_{m,t} w_{m,t} && \text{(if } D_t = 0\text{)}, \\ A_{i,t+1} + c_{i,t} &= (1 + r)A_{i,t} + n_{i,t} w_{i,t} && \text{(if } D_t = 1\text{)}, \end{aligned} \tag{11}$$

and individual participation constraints that are defined below. Given a sequence of

[16] For contributions on the limited commitment theory refer to Pavoni, Sleet, and Messner (2018); Marcet and Marimon (2019). Limited commitment models applied within dynamic collective household models include Mazzocco (2007); Voena (2015); Shephard (2019); Blasutto and Kozlov (2020); De Rock et al. (2023); Blasutto (2024). See Chiappori and Mazzocco (2017); Theloudis et al. (2025) for comprehensive reviews.

optimal choices:

$$\forall \boldsymbol{\Omega}_t^H \quad \left\{ c_{f,t}^*, c_{f,t}^*, n_{f,t}^*, n_{m,t}^*, h_{f,t}^*, h_{m,t}^* A_t^{*H}, D_t^* \right\}_{t=1}^{T}, \tag{12}$$

each partner $i \in \{m, f\}$ values the marriage in the following form:

$$V_{i,t}^H(\boldsymbol{\Omega}_t^H) = u_{i,t}(c_{i,t}^*, l_{i,t}^*, Q_{i,t}^{H*}, \theta_t^H) + \beta \mathbb{E}_{|\mathcal{I}_t^H} \left[V_{i,t+1}^H(\boldsymbol{\Omega}_{t+1}^H) \right]. \tag{13}$$

From the last period T, the continuation value for each partner is computed recursively:

$$V_{i,T}(\boldsymbol{\Omega}_t^H) = u_{i,T}(c_{i,T}^*, l_{i,T}^*, Q_{i,T}^{H*}, \theta_T^H), \tag{14}$$

and for the remaining $t < T$ periods:

$$V_{i,t}(\boldsymbol{\Omega}_t^H) = u_{i,t}(c_{i,t}^*, l_{i,t}^*, Q_{i,t}^{H*}, \theta_t^H) + \beta \mathbb{E}_{|\mathcal{I}_t^H} \left[(1 - D_{t+1}^*) V_{i,t+1}^H(\boldsymbol{\Omega}_{t+1}^H) + D_{t+1}^* V_{i,t+1}^S(\boldsymbol{\Omega}_{t+1}^S) \right]. \tag{15}$$

3.3 Marriage Market and Limited Commitment

Meetings—In each period, with a probability of λ_t, single individuals meet a potential partner with akin wealth level (i.e., assets and labor income).[17] Moreover, as is typically the case, the number of single individuals decreases as people get older. Therefore, we allow the meeting probability to decline as time evolves:

$$\lambda_t = \min \left\{ \max \left\{ \lambda_0 + \lambda_1(\text{Age} - 1) + \lambda_2(\text{Age} - 1)^2, 0 \right\}, 1 \right\}. \tag{16}$$

Once the meeting happens, individuals decide to marry or to stay single. As is further described below, whether a meeting between a single man and a single woman results in marriage depends on a feasible allocation that satisfies both spouses' participation constraints.

Marriage and Divorce Decisions—After a meeting in the marriage market occurs, potential spouses need to decide on getting married or not $\left(M_t \in [0, 1]\right)$. The decision to

[17] We model sorting on wealth as a proxy of education since modeling endogenous educational choices is out of the scope of this paper.

marry is given by:

$$M_t = 1 \quad \forall \quad \left\{ \mu_{m,t} : \; V^H_{m,t}(\mathbf{\Omega}^H_t) \; \geq \; V^S_{m,t}(\mathbf{\Omega}^S_t); \quad V^H_{f,t}(\mathbf{\Omega}^H_t) \; \geq \; V^S_{f,t}(\mathbf{\Omega}^S_t) \right\}, \tag{17}$$

and $M_t = 0$ otherwise. The bargaining weights are normalized as $\mu_{m,t} + \mu_{f,t} = 1$. Hence, two individuals would opt for marriage if the set of Pareto weights (μ_m) is non-empty.

A couple will decide to remain together if for both spouses the utility of being together is larger or equal to the utility of divorce:

$$D_t = 0 \quad \forall \quad \begin{cases} u_{f,t}(c_{f,t}, l_{f,t}, Q^H_t, \theta^H_t) \;\; + \; \beta \mathbb{E}_{|\mathcal{I}^H_t} \left[V^H_{f,t+1}(\mathbf{\Omega}^H_{t+1}) \right] \; \geq \; V^S_{f,t}(\mathbf{\Omega}^S_t), \\ u_{m,t}(c_{m,t}, l_{m,t}, Q^H_t, \theta^H_T) \; + \; \beta \mathbb{E}_{|\mathcal{I}^H_t} \left[V^H_{m,t+1}(\mathbf{\Omega}^H_{t+1}) \right] \; \geq \; V^S_{m,t}(\mathbf{\Omega}^S_t), \end{cases} \tag{18}$$

and $D_t = 1$ otherwise. If a couple decides to divorce, current assets are split proportionally to the spouses' relative incomes.

Bargaining Weights—Under limited commitment, the Pareto weights that are implemented when choices are made in period t may differ from the Pareto weights of the following period. In other words, a couple solves an optimization problem subject to participation constraints (18) that determines whether it is optimal for a married couple to divorce, remain married and maintain the current allocation of resources, or renegotiate by changing the Pareto weights. More precisely, the dynamics of Pareto weights are given by :

$$\mu_{i,t+1} \; = \mu_{i,t} \; + \; \upsilon_{i,t}, \tag{19}$$

where $\upsilon_{i,t}$ corresponds to the Lagrange multiplier associated with each spouse's sequential participation constraint in problem (11). Moreover, we have that:

$$\mu_{m,1} = \mu_0 \quad \text{and} \quad \mu_{f,1} = (1 - \mu_0), \tag{20}$$

where $\mu_{m,0}$ is the *initial* Pareto weight. This process ensures that the next period's participation constraint is always satisfied in marriage (i.e., whenever $D_t = 0$).[18]

[18] For an explanation about how forward-looking constraints can be summarized by the recursive form of Lagrange multipliers, see Marcet and Marimon (2019).

The initial bargaining weight (μ_0) is obtained by solving the following Nash bargaining problem with the value of singlehood as threat points:[19]

$$\mu_{m,0} = \arg\max_{\mu} \left\{ \left[V^H_{m,t}(\boldsymbol{\Omega}^H_t; \mu_m) - V^S_{m,t}(\boldsymbol{\Omega}^S_t) \right] \right. \\ \left. \times \left[(V^H_{f,t}(\boldsymbol{\Omega}^H_t; (1-\mu_m)) - V^S_{f,t}(\boldsymbol{\Omega}^S_t) \right] \right\}. \tag{21}$$

4 Identification

In this section, we discuss how the primitive parameters of the model can be identified using our rich HILDA panel data on wages, labor supply, childcare time, and personality types. Given the model (nonlinear) complexity, we focus on some key identification aspects and provide basic intuition. The structural parameters are identified from a set of intraperiod optimality and cost-minimization conditions. In Appendix E, we derive a more detailed set of identifying conditions, and show that by taking appropriate ratios between endogenous choices, our parametric structure would allow us to identify all of the model primitives.

We make the standard assumption that domestic production is carried out efficiently given exogenous individual wages (Chiang & Wainwright, 2005). Under this assumption, the household chooses the combination of mother's and father's childcare hours that produces a given level of Q^H_t at minimum cost, so the marginal rate of technical substitution between their time must equal the wage ratio. With the CES form, this implies a log-linear relationship between the ratio of childcare hours and the ratio of wages, with the slope of that relationship identifying the elasticity of substitution in childcare time (ρ). We further show that the husband's productivity in childcare time, ψ_m, is defined as the share of total effective (already accounting for substitution), cost-adjusted childcare input that comes from the husband. From this, we yield a moment condition in observed wages and childcare time.

We show that the moment conditions identifying preference parameters, come from solving the intra-period problem for a married couple. The continuation value can be potentially ignored, because every intra-period first-order condition is identical to what

[19] Our definitions of the marriage market process, including meetings of potential partners and decisions on marriage and divorce, follows much of the family economics literature using limited commitment models (Voena, 2015; Low et al., 2023; Blasutto, 2024; Blasutto & Kozlov, 2020).

one would write in a single-period household model, conditional on the given Pareto weight configuration at that period (Marcet & Marimon, 2019). Intuitively, individual taste for childcare ($\tau_{i,t}$) equates the marginal utility value of an extra hour of childcare to the marginal utility value of the forgone consumption from working an extra hour at wage. Higher $\tau_{i,t}$ means the model must rationalize a relatively high childcare input $h_{i,t}$ despite the same wage and consumption profile. In practice, individual consumption is not observed, so identification instead relies on *relative* FOCs and cross-personality variation. Identification of the gender-specific risk aversion for leisure ($\gamma_{i,l}$), relies on the fact that the same $\gamma_{i,l}$ must rationalize the joint pattern of $(l_{i,t}, w_{i,t})$ across ages and personality types, given the model's consumption-sharing rule and other primitives.

The match quality process (θ_t^H) enters additively and as i.i.d. across time and couples. Given the other model primitives, we can compute for each couple type the minimal match quality that makes both spouses' participation constraints just bind. We can get a system of moments conditions for $\{\mu_\theta(\pi_J), \sigma_\theta\}$, that comes from equating the predicted probability of marriage (at the minimal match quality) with the actual marriage take up across marriage types.

While we consider the wage process as exogenous, consistent estimation is not possible because of the endogenous labor-market participation. Wage information is available for many waves, but observations are absent whenever an individual (non-randomly) reports zero hours. We therefore use an otherwise standard two-step selection correction when estimating wages (Heckman, 1979), as explained below.

5 Estimation

The estimation follows a three-step process. First, we fix a subset of the model parameters. Second, we estimate several model parameters directly from the HILDA data without employing the structural model. Finally, we estimate the remaining parameters using the Simulated Method of Moments (SMM) (Pakes and Pollard (1989); McFadden (1989)). The subsequent subsections provide a more detailed explanation of each step in the estimation process.

5.1 Step 1—Pre-Set Parameters

Table 10 details more about the pre-set parameters and values. We assume that men and women begin their lives at age 25. Partnerships are formed between individuals of the same age. All agents retire at 65 and the lifecycle ends at age 80. Following the literature, the discount factor (β) is set to 0.98. The coefficient of relative aversion for consumption (γ_c) is fixed to 1.50. We assume that individuals at the age of 25 begin the model with zero assets ($A_{i,0} = 0$). The annual interest rate (r) is set to 2%. Parameters associated to the process of meeting a partner are fixed to {0.692, -0.033, 0.001 }, which represent the evolution of the meeting probability over time found in the literature. The weekly work domain is set symmetrically across genders. Each individual has a fixed time budget, normalized to one. For both partners, labor supply choices are limited to working full-time (50 hours), part-time (20 or 35 hours), or not working at all. Additionally, we apply a symmetric grid for both genders regarding childcare time.

Table 10: Pre-Set Parameters and Values

Parameter	Value	Source
Annual discount factor (β)	0.98	Attanasio, Low, and Sánchez-Marcos (2008)
Risk aversion in consumption (γ_c)	1.50	Attanasio et al. (2008)
Meetings probability by age ($\lambda_0, \lambda_1, \lambda_2$)	$\{0.692, -0.033, 0.001\}$	Low et al. (2023)
Interest rate (r)	0.02	–
Weekly work hours domain	$\{50, 35, 20, 0\}$	HILDA
Weekly non-paid work domain	$\{50, 35, 20, 0\}$	HILDA

NOTE—This table shows parameter values that are exogenously set in the estimation procedure.

5.2 Step 2—Wage Process

We estimate the spouses' wage processes using time series data on real hourly wage rates, and exploiting a set of moment conditions derived from our functional specifications for these processes. We account for the endogeneity due to selection in the labor market of both males and females, estimating a two-step Heckman procedure (Heckman, 1979).

We estimate individual-level log (normalized) wage offers as a function of gender-specific personality types ($\pi_{i,j}$), with type-subscripts omitted to avoid notational clutter:

$$\ln(w)^{\pi}_{i,t} = \alpha^{\pi}_0 + \alpha^{\pi}_1 \text{Age}_{i,t} + \alpha^{\pi}_1 \text{Age}^2_{i,t} + \alpha^{\pi}_2 \text{Educ}_{i,t} + \alpha^{\pi}_3 m_{i,t} + \omega^{\pi}_t + \nu^{\pi}_i + \varepsilon^{\pi}_{i,t}, \tag{22}$$

where, besides controlling for an individual's education and age profile, we add marital status (m), survey year fixed effects (ω), state fixed effects (ν), and:

$$\begin{aligned} \varepsilon^{\pi}_{i,t} &= z^{\pi}_{i,t} + \xi^{\pi}_{i,t}, \\ &= z^{\pi}_{i,t-1} + \zeta^{\pi}_{i,t} + \xi^{\pi}_{i,t}, \end{aligned} \tag{23}$$

with z as the permanent component of the income process, ζ permanent income shocks, and ξ denoting measurement error. The estimates of parameters α^{π}_0, α^{π}_1, and α^{π}_2 are used to construct the trends in labor market productivity. All coefficients, as noted, vary by personality and gender.

Let $W^{\pi}_{i,t} \in \{0, 1\}$ represent the decision of an individual to participate in the labor market. Hence, wages are only observed when:

$$W^{\pi}_{i,t} = 1 \Leftrightarrow \mathbf{z}'_{i,t}\boldsymbol{\varphi}^{\pi} + \delta^{\pi}_1 k_{i,t} + \kappa^{\pi}_{i,t} > 0, \tag{24}$$

where $\mathbf{z}$ are all the regressors of the offer wage equation (22), k is the number of children the individual has (that is excluded from wages), and κ_t are unobserved shocks. First, through a Probit model, we estimate the probability of labor market participation using the additional variation provided by the number of children inside the household:

$$\mathbb{P}(W^{\pi}_{i,t} = 1) = \mathbb{P}(\kappa^{\pi}_{i,t} > \Upsilon^{\pi}_{i,t}), \tag{25}$$

with $\Upsilon^{\pi}_{i,t} = -\mathbf{z}'_{i,t}\boldsymbol{\varphi}^{\pi} - \delta^{\pi}_1 k_{i,t}$. Next, we estimate the wage offer equation for those who work, controlling for the inverse of the Mills ratio of the fitted values from equation (22). Following Low et al. (2023), we estimate the variance of the permanent income component of the log income, $\sigma^2_{\zeta^{\pi}}$, using the residuals from the second step ($\hat{\varepsilon}^{\pi}_{i,t}$) and solving the following system of moment conditions:

$$\begin{aligned}
\mathbb{E}\left[\Delta\hat{\varepsilon}^{\pi}_{i,t} \mid W^{\pi}_{i,t}=1, W^{\pi}_{i,t-1}=1\right] &= \sigma^2_{\kappa^\pi}\frac{\phi(\Upsilon^{\pi}_{i,t})}{1-\Phi(\Upsilon^{\pi}_{i,t})}, \\
\mathbb{E}\left[(\Delta\hat{\varepsilon}^{\pi}_{i,t})^2 \mid W^{\pi}_{i,t}=1, W^{\pi}_{i,t-1}=1\right] &= 2\sigma^2_{\zeta^\pi}+\sigma^2_{\kappa^\pi}\frac{\phi(\Upsilon^{\pi}_{i,t})}{1-\Phi(\Upsilon^{\pi}_{i,t})}\Upsilon^{\pi}_{i,t}+2\sigma^2_{\xi^\pi}, \\
\mathbb{E}\left[\Delta\hat{\varepsilon}^{\pi}_{i,t}\Delta\hat{\varepsilon}^{\pi}_{i,t-2} \mid W^{\pi}_{i,t}=1, W^{\pi}_{i,t-1}=1, W^{\pi}_{i,t-2}=1\right] &= -\sigma^2_{\xi^\pi},
\end{aligned} \tag{26}$$

where $\Delta\hat{\varepsilon}^{\pi}_{i,t}=\hat{\varepsilon}^{\pi}_{i,t}-\hat{\varepsilon}^{\pi}_{i,t-1}$, and $\phi(\cdot)$ and $\Phi(\cdot)$ are, respectively, the density and distribution function of a standardized normal distribution, that where used to compute the Mills ratio. As mentioned, we assume zero covariance in the shocks between spouses.

The results are shown in Table 11. Overall, we observe an inverted U-shaped in the returns to experience across gender and personality types. Men also experience higher wages than women, with similar levels of income volatility. Returns to experience differ across personality types. For both men and women, the level of wages is higher in type-1 individuals than in type-2. Although type-2 women enjoy higher returns to experience, their lifetime earnings may still fall short because type-1 women start from a higher wage level and face less income volatility than type-2 women.[20] As noted below, these personality-dependent wage profiles feed into larger feasible consumption-leisure-childcare choices, higher outside options in marriage, and thus bargaining and divorce patterns.

[20] Overall, the magnitudes and direction of our estimated gender-specific wage process are in line with those estimated by Voena (2015); Low et al. (2023); Blasutto (2024). Our personality-dependent wage estimates are also consistent with the literature. For instance, an increment in the level of openness to experience, conscientiousness, or agreeableness could generate the largest increases in lifecycle earnings (Todd & Zhang, 2020). Also, higher levels of conscientiousness and emotional stability are associated with higher wage level and more stable employment, possibly due to higher job offer arrivals, better labor market bargaining power, and lower job exit rates (Flinn et al., 2025). Refer to Table 2 for a description of personality types 1 and 2.

Table 11: Estimates of the Wage Process

	Parameter	Personality Type 1	Personality Type 2
Women's return to experience (constant)	$\alpha_0^{\pi_f}$	1.926	1.351
Women's return to experience (age)	$\alpha_1^{\pi_f}$	0.035	0.066
Women's return to experience (age^2)	$\alpha_2^{\pi_f}$	-0.0004	-0.0008
Variance of women's income shock	$\sigma^2_{\zeta^{\pi_f}}$	0.047	0.066
Men's return to experience (constant)	$\alpha_0^{\pi_m}$	2.705	2.072
Men's return to experience (age)	$\alpha_1^{\pi_m}$	0.045	0.045
Men's return to experience (age^2)	$\alpha_2^{\pi_m}$	-0.0004	-0.0004
Variance of men's income shock	$\sigma^2_{\zeta^{\pi_m}}$	0.049	0.043

NOTE—Bootstrapped income process parameters estimated by non-linear least squares using HILDA data of men and women between 25 and 55 years old. Number of replications: 1000. Refer to Table 2 for a description of personality types 1 and 2.

5.3 Step 3—Structural Estimation

Structural Parameters and Estimation— Through the SMM, we estimate the remaining 17 unknown parameters associated with preferences, match quality, and child production:

1. $\bar{\tau}_{i,t}(\pi_{i,J})$: the taste for child production by gender-specific personality types
2. $\mu_\theta(\pi_J))$: the expected level of the match quality shock by personality type of the couple.
3. σ^2_θ: the variance of the match quality.
4. $\gamma_{i,l}$: the curvature parameter for leisure by gender and marital status
5. ρ: the elasticity of substitution for child production time inputs
6. ψ: the marriage efficiency in child production for men

Empirical moments, denoted by the vector $\widehat{\mathbf{m}}$, are computed using the HILDA sample, which includes data from 2001 to 2019 (see Section 2 for a description of the sample). We denote the vector of the parameters of the structural model by $\boldsymbol{\Theta}$. For a given $\boldsymbol{\Theta}$, we solve the structural model by backward recursion, simulate data for 20000 hypothetical individuals, and compute the vector of simulated moments, $\mathbf{m}(\boldsymbol{\Theta})$. We use the inverse of the variance-covariance matrix of the empirical moments computed using the bootstrap method as a weighting matrix ($\mathbf{W}$). The estimation problem is defined by:

$$\min_{\boldsymbol{\Theta}} \left\{ \left[\mathbf{m}(\boldsymbol{\Theta}) - \widehat{\mathbf{m}}\right]' \mathbf{W} \left[\mathbf{m}(\boldsymbol{\Theta}) - \widehat{\mathbf{m}}\right] \right\}. \tag{27}$$

In total, we have 22 moments used to identify 17 parameters. In the following subsections, we present the structural estimates and sample fit.

Preferences Estimates—Panel (A) of Table 12 reports the structural parameters governing leisure and the taste for child production. The estimated leisure curvature parameters, $\gamma_{f,l} = 2.79$ for women and $\gamma_{m,l} = 2.34$ for men, imply relatively low willingness to trade off leisure hours for both spouses. The taste parameter for child output, $\bar{\tau}(\pi_{i,J})$, shows that, holding the partner's type fixed, type-1 men and women value child production more than type-2 men and women. Within a given couple type, women's preferences for children are on average stronger than men's, consistent with evidence that mothers place more weight on child outcomes than fathers in dynamic collective settings.[21] Across couple combinations, (f_1, m_1) marriages have the highest average taste for children for both spouses, (f_2, m_2) the lowest, with mixed-type couples lying in between.

Match Quality Estimates—Panel (B) summarizes the parameters of the match-quality process. The estimated variance, $\sigma_\theta = 0.63$, captures idiosyncratic fluctuations in marital surplus over time, and is restricted to be common across couple types, in line with previous work on marital surplus shocks.[22] The mean $\mu_\theta(\pi_J)$ varies systematically with personality composition: couples involving at least one type-1 partner enjoy higher average match quality than the all–type-2 benchmark. Interestingly, (f_2, m_2) couples have the lowest average match quality but also the weakest outside options, so their participation constraints rarely bind. In the model, this combination produces low surplus but high stability, consistent with the data.

[21] Verriest (2024), for example, estimates lower paternal than maternal weight on child development in a dynamic collective model.

[22] See, for instance, Brien et al. (2006) and Blasutto and Kozlov (2020).

Production Estimates—Panel (C) of Table 12 reports the estimates for the marginal productivity of childcare time and substitution of hours. One extra hour of childcare by the woman raises joint child-production output by almost twice as much as an extra hour by a man ($\psi_m = 0.36$; $(1 - \psi_m) = 0.64$).[23]. The estimated value of ρ implies an elasticity of substitution of 2.5, which means that men's and women's childcare time is highly substitutable.

5.4 Model Fit

The calibrated model reproduces key patterns in childcare, labor supply, and marriage-market outcomes across personality types.

Childcare and Household Production—Table 13 shows that the model matches well the targeted cross-sectional distribution of childcare hours by gender, age group, and couple personality type. For married women, simulated childcare time closely tracks the data across all four couple types and both age ranges, including the higher childcare intensity of younger mothers and the systematic premium for type-1 women in couples (f_1, m_1) relative to type-2 women in couples (f_2, m_2). For married men, the model slightly overpredicts childcare at younger ages, but it captures the ranking across couple types and the decline in paternal childcare between ages 25—34 and 35—49. These moments show that the estimated "couple-type premium" in preferences for children and in productivity translates into realistic differences in childcare hours.

Women's Labor Supply by Couple Type—Figure 1 compares women's non-targeted market hours, separately for ages 25—34 and 35—49 and across the marriage personality types. The model reproduces the fact that women in (f_1, m_1) couples work the longest hours and that women in (f_2, m_2) couples work the least, with mixed couples in between. It also matches the overall decline in women's market hours between the younger and older age groups. Since these moments were not directly targeted, they provide an out-of-sample check that the estimated parameters jointly generate realistic specialization patterns across couple types.

[23] In line with existing findings that mothers' hours are generally more productive in generating child output than fathers' hours (Del Boca et al., 2014; Agostinelli, Ferraro, Qiu, & Sorrenti, 2024)

Table 12: Structural Parameters Estimates

	Parameter	Estimate
A. Preferences:		
Leisure risk aversion, *women*	$\gamma_{f,l}$	2.79
Leisure risk aversion, *men*	$\gamma_{m,l}$	2.34
Taste for children over time:	$\bar{\tau}(\pi_{i,J})$	
Women in *couple* (f_1, m_1)		8.19
Women in *couple* (f_2, m_1)		5.61
Women in *couple* (f_1, m_2)		7.36
Women in *couple* (f_2, m_2)		5.19
Men in *couple* (f_1, m_1)		6.96
Men in *couple* (f_2, m_1)		5.59
Men in *couple* (f_1, m_2)		6.26
Men in *couple* (f_2, m_2)		5.23
B. Match quality:		
Variance	σ_θ	0.63
Expected level, *couples*:	$\mu_\theta(\pi_J)$	
Couple (f_1, m_1)		1.05
Couple (f_2, m_1)		0.84
Couple (f_1, m_2)		0.97
Couple (f_2, m_2)		0.67
C. Child production:		
Marginal productivity of childcare time, *men*	ψ_m	0.36
Substitution of childcare time:	ρ	0.60

NOTE—Parameters estimated using Simulated Method of Moments, simulating 20,000 hypothetical individuals with the bootstrap method to compute the weighting matrix.

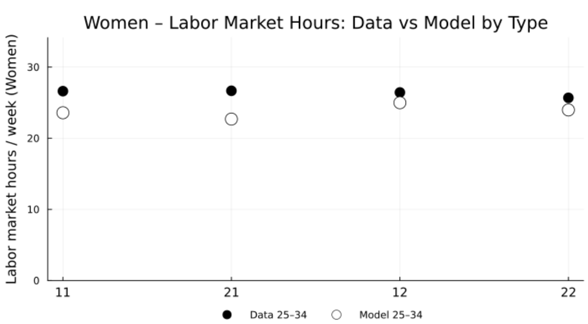
Marriage-Market Outcomes—Table 14 summarizes how well the model reproduces marriage-market targeted moments by personality and divorce status. The simulated distribution of couple types is very close to the data: the model slightly understates the share of (f_1, m_1) and (f_2, m_2) marriages and slightly overstates the share of (f_2, m_1), but the overall sorting pattern is preserved. The model underpredicts divorce at younger ages (25—34) and somewhat understates the divorce rate for type-1 men and women, yet it captures two central features: divorce is more common at older ages, and type-1 individuals are more likely to be divorced than type-2 individuals.

Table 13: Targeted Moments—Childcare Hours

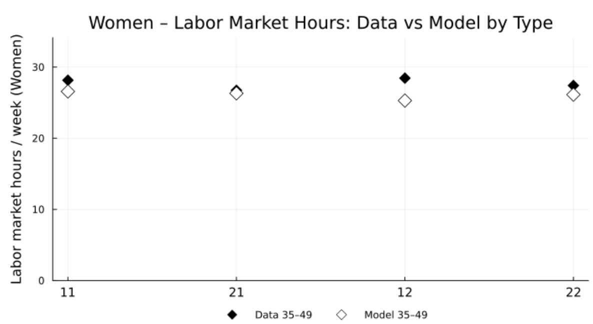
	Age 25–34		Age 35–49	
	Data	**Model**	**Data**	**Model**
A. Childcare hours, *married women:*				
(f_1, m_1)	39.76	39.47	24.49	25.63
(f_2, m_1)	36.59	37.80	22.96	21.98
(f_1, m_2)	36.67	32.49	23.17	18.28
(f_2, m_2)	34.49	32.49	23.06	22.08
B. Childcare hours, *married men:*				
(f_1, m_1)	15.71	20.99	11.57	11.13
(f_2, m_1)	15.39	18.33	12.02	7.59
(f_1, m_2)	14.11	17.63	10.69	8.38
(f_2, m_2)	13.85	18.42	10.38	10.71

NOTE—Data moments are taken from HILDA datasets, 2001–2019 waves. Model moments come from the full model solution, simulated for 20,000 individuals.

Figure 1: Non-Targeted Moments: Women's Labor Market Hours



(a) Age 25–34



(b) Age 35–49

NOTES—Each panel compares model-generated labor market hours to data for four household personality-match clusters (11, 21, 12, 22). Model values are shown using hollow markers; data values use filled markers.

Table 14: Targeted Moments—Marriage-Market Outcomes

	Age range	Data	Model
A. Couple-type shares:			
Fraction of couples (f_1, m_1)	25–49	0.32	0.29
Fraction of couples (f_2, m_1)	25–49	0.14	0.18
Fraction of couples (f_1, m_2)	25–49	0.31	0.31
Fraction of couples (f_2, m_2)	25–49	0.21	0.19
B. Divorce rates:			
Divorced individuals, *all*	25–34	0.02	0.00
Divorced individuals, *all*	35–49	0.15	0.08
Divorced men, type m_1	25–49	0.09	0.02
Divorced men, type m_2	25–49	0.07	0.07
Divorced women, type f_1	25–49	0.12	0.06
Divorced women, type f_2	25–49	0.09	0.02

NOTE—Data moments are taken from HILDA datasets, based on 2001–2019 waves. Model moments come from the full model solution, simulated for 20,000 individuals.

6 Quantification

In this section, we use the estimated model to quantify how personality-driven heterogeneity in wages, match quality, and child preferences translates into differences in time use, bargaining power, and divorce, combining a Shapley decomposition of aggregate outcomes with an Oaxaca–Blinder decomposition of bargaining weights. We also study the implied dynamics of intra-household bargaining and marital stability across couple types, tracing how limited commitment and outside options shape the evolution of Pareto weights and divorce hazards over the life cycle.

Shapley Decomposition of Economic Mechanisms—To understand how much each economic mechanism contributes to the aggregate patterns in the data, we apply a Shapley decomposition.[24] Table 15 reports, for each outcome, the *row share* of the total Shapley contribution that is attributable to heterogeneity in wages, match quality, and preferences for child production. Each row sums to one up to rounding (refer to Appendix F for further details). Across all outcomes, about 45% of the effect of personality on

[24] We follow the approach in Shorrocks (2013) and Audoly, Grassi, Rodnyansky, and Weber (2025). Refer to Appendix F for further details.

household behavior comes from wage heterogeneity, one-third from differences in expected match quality, and the remaining quarter from differences in preferences for child production.

Table 15: Shapley Decomposition of Aggregate Effects by Mechanism

Outcome	Wage Process	Match Quality	Taste for Children
Divorce Rate	0.417	0.333	0.250
Bargaining Power	0.500	0.346	0.154
Home Hours (Women)	0.493	0.304	0.203
Home Hours (Men)	0.424	0.333	0.242
Market Hours (Women)	0.426	0.340	0.234
Market Hours (Men)	0.400	0.333	0.267
Average	**0.443**	**0.332**	**0.225**

NOTE— Entries give the share of the total Shapley contribution for each outcome that is attributable to heterogeneity in wages, match quality, and preferences for childcare. Each row sums to one up to rounding.

The decomposition attributes the total effect of "switching off" all heterogeneity to the three underlying channels. For the divorce rate, roughly 42% of the aggregate effect is due to wage heterogeneity, 33% to match-quality heterogeneity, and 25% to preference heterogeneity. For bargaining power, wage dispersion accounts for about half of the total effect, match-quality differences for roughly one third, and preference heterogeneity for the remaining 15%.

Time-allocation outcomes display a similar ranking. For women's home hours, about 49% of the effect is explained by wage heterogeneity, 30% by match quality, and 20% by preferences. For men's home hours and for market hours of both spouses, the wage and match-quality components together consistently account for around 70–75% of the total, with preference heterogeneity contributing the residual 20–25

Overall, about half of the personality-related heterogeneity operates through wage processes; the other half operates through marital surplus and preferences for child production.

Bargaining Power and Marital Stability—We now show how personality affects intra-household bargaining power and marital stability in the model. Under limited commitment, the Pareto weight μ_t adjusts whenever the gap between the value of marriage and a spouse's outside option becomes small. Personality differences in wages, preferences, and match quality thus translate into systematic differences in the tightness of participation constraints, in the path of μ_t, and in the probability that no feasible sharing rule exists, leading to divorce.

Table 16 summarizes key life-cycle outcomes by couple type. The average female bargaining weight ranges from 0.37—0.40 across couple types. In our framework, differences in Pareto weights across marriages come from relative outside options between spouses. For instance, type-1 men combine high wages with high match quality, so (f_2, m_1) households are sufficiently attractive that type-2 women are willing to remain in the relationship even if conditions were slightly less favorable. Alternatively, when the woman is type-1, she has higher earnings potential and stronger child preferences, raising the value of her outside option (and therefore her Pareto weight conditional on staying married). In (f_2, m_2), the total marital surplus is relatively low. Hence, to satisfy individual participation constraints in these couples, the model settles on a somewhat higher female Pareto weight.

Renegotiation (hitting a participation constraint at least once between ages 25 and 49) is infrequent overall, occurring for about 0.5—0.6% of couples per year. However, these rates are slightly more common in couples with type-1 women, consistent with their steeper wage process and stronger taste for children. These elements show up more strongly in the divorce hazards, which are the highest for couples involving type-1 individuals and lowest for (f_2, m_2) couples. Overall, the mating probabilities echo the reduced-form marriage hazards: type-1 individuals are relatively more likely to marry than type-2 individuals.

Table 16: Lifecycle Outcomes by Household Type

Outcome / Couple	(f_1, m_1)	(f_2, m_1)	(f_1, m_2)	(f_2, m_2)
Female bargaining weight μ	0.39	0.37	0.39	0.40
Renegotiation rate (%)	0.60	0.54	0.61	0.53
Hazard of divorce	5.94	7.49	8.33	4.18
Mating probability (%)	91.46	94.27	87.15	90.64

NOTE—Statistics averaged over ages 25–49. Renegotiation rate is the fraction of couples who hit a participation constraint at least once. The hazard of divorce is the annual hazard conditional on being married at the start of the period.

Table 17 disaggregates bargaining power by marital status. For each couple type, we report the average female Pareto weight in couples who remain always married and those who divorce early and remain divorced. For all personality matches, women in always-divorced households enjoy somewhat higher bargaining weights than women in always-married households, reflecting the fact that divorce is an option primarily exercised when singleness options are relatively attractive. Couples that end up divorcing are selected to be those where the woman's outside option is relatively strong (because of her wage path, preferences, or match-quality history); to keep these women just indifferent to leaving is to relatively increase her share of the surplus.

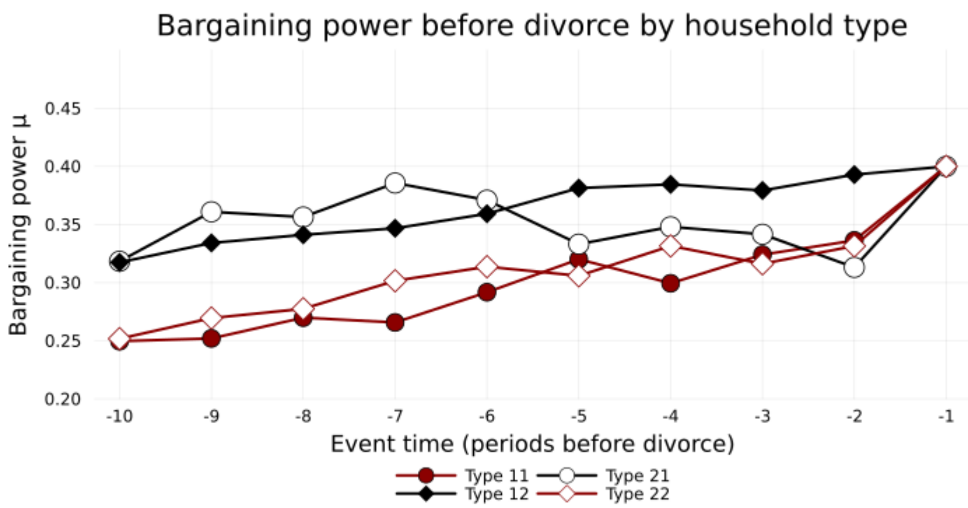
Figure 2 illustrates the average path of female bargaining weights in the years immediately preceding divorce, by couple type. For all personality matches, μ_t follows an increasing trend before divorce, as the limited-commitment constraints push more surplus toward the spouse with stronger outside options, until no feasible sharing rule remains and the marriage dissolves. At the brink of divorce, the woman's constraint is binding in essentially the same way across couples. However, bargaining power far from the event reflects type-specific differences. For instance, in (f_2, m_2), female bargaining weight starts low and only rises when a sequence of shocks gradually improves her outside option relative to staying.

Table 17: Female Bargaining Power by Couple Type and Marital History

Couple	Always married	Always divorced
(f_1, m_1)	0.35	0.40
(f_2, m_1)	0.32	0.40
(f_1, m_2)	0.35	0.40
(f_2, m_2)	0.38	0.41

NOTE— Entries report the average female Pareto weight by couple personality type, separately for households that remain married over the entire observation window ("always married") and those that experience an early divorce and remain single thereafter ("always divorced"). Bargaining weights are averaged over ages 25–49, conditional on the indicated marital history.

Figure 2: Average Female Pareto Weight in the Years Leading Up to Divorce



NOTE— The figure plots the average female Pareto weight in the years preceding divorce, by couple personality type. For each marriage that eventually dissolves, we align the time axis at the year of separation and track the evolution of the woman's Pareto weight in the periods before that event. Curves are obtained from simulated life-cycle paths of the estimated model.

Oaxaca–Blinder Decomposition of Bargaining Power—To quantify the mechanisms driving heterogeneity in intra-household bargaining power, we adapt the Oaxaca–Blinder decomposition to the structure of our model, following the approach of (Flinn et al., 2025). This methodology separates group differences in equilibrium outcomes into components attributable to (i) differences in *endowments* (i.e., differences in observable characteristics), and (ii) differences in the *structural mapping* from observables into outcomes. We apply this logic to the average bargaining weight μ across couple personality types.

Let $\omega(\Psi_J, z)$ denote the predicted bargaining weight implied by a linear approximation of the structural relationship between household characteristics (z) and the bargaining outcome under the parameter vector Ψ_J for household type $J \in \{11, 21, 12, 22\}$. For each J, we estimate:

$$\mu_J = \beta_{0,J} + \beta_{1,J}\,\mathrm{WR}_J + \beta_{2,J}\,\theta_J + \beta_{3,J}\,\tau_J + \beta_{4,J}\,R_J + \varepsilon_J, \tag{28}$$

where WR_J denotes the female-male income ratio over marriage, θ_J is the average match quality, τ_J is a couple-level index of parental taste for children, and R_J is the frequency of renegotiation events. The fitted coefficients:

$$\hat{\Psi}_g = (\hat{\beta}_{0,J}, \hat{\beta}_{1,J}, \hat{\beta}_{2,J}, \hat{\beta}_{3,J}, \hat{\beta}_{4,J}) \tag{29}$$

represent the household-specific structural mapping from the economic channels (through which personality affects marriages) to bargaining power.

For any two marriage types, say, J_{11} and J_{22}, let $\bar{z}_{J_{11}}$ and $\bar{z}_{J_{22}}$ denote the respective vectors of mean characteristics. The difference in average bargaining power between types J_{11} and J_{22}, can be expressed as:

$$\bar{\mu}_{J_{11}} - \bar{\mu}_{J_{22}} = \underbrace{\left[w(\hat{\Psi}_{J_{11}}, \bar{z}_{J_{11}}) - w(\hat{\Psi}_{J_{11}}, \bar{z}_{J_{22}})\right]}_{\text{Endowment effect}} + \underbrace{\left[w(\hat{\Psi}_{J_{11}}, \bar{z}_{J_{22}}) - w(\hat{\Psi}_{J_{22}}, \bar{z}_{J_{22}})\right]}_{\text{Structural effect}}. \tag{30}$$

The first term in equation (30) captures differences due to mechanisms: e.g., if couples J_{11} and J_{22} were governed by the same coefficients, how much of the μ—gap comes just from the fact that they differ in $\{WR, \theta, \tau, R\}$? The second term captures differences in how these channels map into μ for each couple type: e.g., how much of the μ—gap comes from the way limited commitment and preferences map $\{WR, \theta, \tau, R\}$ into bargaining weights, differ between J_{11} and J_{22}?

Table 18 reports the decomposition for selected pairwise comparisons. For instance, the raw difference in average bargaining power between (f_1, m_1) and (f_2, m_2) couples is $\bar{\mu}_{J_{11}} - \bar{\mu}_{J_{22}} = -0.0127$. The endowment component is positive (0.0234), which is intuitive: (f_1, m_1) couples typically feature higher match quality, stronger preferences for children, a wage ratio relatively less unfavorable to women, and slightly more renegotiation. However, the structural component is negative (-0.0361), meaning that these same characteristics translate into lower female bargaining power in (f_1, m_1) than in (f_2, m_2) couples. Higher match quality reduces the need to adjust the wife's Pareto weight upward, strong child preferences make marriage particularly valuable for her, and the husband's high earnings can partly offset women's own earnings potential in the allocation of bargaining power. Similar interpretations are observed across pairwise comparisons.

Table 18: Oaxaca–Blinder Decomposition of Bargaining Power

Comparison	μ—gap	Endowments	Structural
(f_1, m_1) vs. (f_2, m_1)	-0.001	0.038	-0.039
(f_1, m_1) vs. (f_1, m_2)	-0.003	0.023	-0.026
(f_2, m_1) vs. (f_2, m_2)	-0.012	-0.007	-0.005
(f_1, m_1) vs. (f_2, m_2)	-0.013	0.023	-0.036

NOTE— The table reports an Oaxaca–Blinder decomposition of the difference in average bargaining power $\bar{\mu}$ between two couple types. The gap is defined as $\bar{\mu}_A - \bar{\mu}_B$. The endowment effect captures the part explained by differences in observed characteristics, evaluated at the coefficients of type A: $[w(\hat{\Omega}_A, \bar{z}_A) - w(\hat{\Omega}_A, \bar{z}_B)]$. The structural effect reflects the part due to differences in how characteristics map into $\bar{\mu}$ across the two types: $[w(\hat{\Omega}_A, \bar{z}_B) - w(\hat{\Omega}_B, \bar{z}_B)]$. The sum of the two components equals the total gap up to rounding.

7 Counterfactuals

We use the estimated model to study how personality moderates the impact of large, unexpected shocks on intra-household bargaining, time allocations, and marital stability. Throughout, we analyze how the same shock propagates differently across marriage types through wage productivity, childcare preferences, and match quality.

We analyze two counterfactual experiments applied at age 30. First, we impose a permanent, one–standard-deviation drop in men's wage, treated as fully unanticipated and applied to both single and married men. This shock primarily operates through the wage/productivity channel and mimics, for example, a persistent job loss early in the life cycle. Second, we impose a permanent, one–standard-deviation negative shock to match quality at age 30, again unanticipated. This shock directly affects the surplus generated by the relationship, holding the earnings process fixed, and captures persistent deterioration in relationship quality. For type-2 wives, the wage shock weakens their absolute position but weakness the husband's threat point even more, which shows up as a higher female bargaining weight.

In each case, we solve the model forward using the estimated parameters and recompute optimal allocations and marriage/divorce decisions. We then compare simulated outcomes under the shock to the baseline along three dimensions: (i) female bargaining power for couples who remain always married or always divorced, (ii) divorce rates by personality marriage type, and (iii) labor-market and childcare hours. Finally, we compute consumption-equivalent variation (CEV) measures for men and women in each marriage type to quantify who bears the welfare cost of each shock.

How Do Shocks Affect Bargaining and Divorce?—Table 19 reports female bargaining power for couples who remain always married (Panel A) and always divorced (Panel B), as well as divorce rates by personality match (Panel C), under the baseline and under each shock.

A negative wage shock to men has large and highly heterogeneous effects on bargaining power across personality types. Among always-married couples, female bargaining power falls sharply in households with type-1 women: from about 0.40 to 0.25 in (f_1, m_1) and to 0.27 in (f_1, m_2). By contrast, bargaining power *increases* for type-2 women married to type-1 men, rising from about 0.41 to 0.46 in (f_2, m_1), and changes little in (f_2, m_2) couples. A similar pattern emerges among always-divorced households (Panel B): the wage shock reduces women's bargaining power when the wife is type 1, but substantially raises it when she is type 2, especially in (f_2, m_1) and (f_2, m_2) couples.

These patterns reflect how personality shapes outside options and how often participation constraints bind under limited commitment. Type-1 women enter the marriage with strong outside options (steeper wage paths and stronger child preferences). When male wages fall, total marital surplus shrinks and, in many marriages involving a type-1 wife, there is no feasible Pareto weight that keeps her just indifferent between remaining married and divorcing (i.e., these marriages dissolve). The type-1 women who remain married are therefore selected to be those with relatively weaker outside options, or matched to husbands who are sufficiently attractive along other dimensions, which shows up as a lower average female Pareto weight among always-married couples. For type-2 wives, by contrast, the male wage shock weakens the husband's position relative to theirs; to prevent his participation constraint from binding too often, the model adjusts more household output toward the wife in marriages, raising her bargaining weight.

The match-quality shock operates very differently. A one–standard-deviation permanent decline in match quality reduces female bargaining power for *all* couple types, in both always-married and always-divorced samples, with declines of roughly 0.03–0.07 points in levels. This indicates that lower match quality compresses women's share of the marital surplus in a fairly uniform way, with much less personality-specific differentiation than in the wage-shock case.

Panel C of Table 19 shows how these shocks affect divorce rates. The male wage shock dramatically destabilizes marriages with type-1 women but has almost no effect for matches with type-2 women. For instance, divorce rates jump from around 0.08 to 0.64 in both (f_1, m_1) and (f_1, m_2), while they hardly move for (f_2, m_1) and (f_2, m_2). In contrast, the match-quality shock generates only modest changes in divorce, on the order of a few percentage points across all couples. Taken together, these results suggest that the wage-productivity channel is the primary driver of personality-related differences in marital stability, whereas match-quality differences mainly affect how the surplus is split rather than whether marriages survive.

Table 19: Wage and Match-Quality Negative Shocks—Bargaining Power and Divorce

Couple	Baseline	Wage male shock	Match-quality shock
Panel A—Female power, always married:			
(f_1, m_1)	0.39	0.25	0.32
(f_2, m_1)	0.40	0.45	0.32
(f_1, m_2)	0.39	0.26	0.33
(f_2, m_2)	0.41	0.42	0.36
Panel B—Female power, always divorced:			
(f_1, m_1)	0.33	0.27	0.24
(f_2, m_1)	0.33	0.48	0.25
(f_1, m_2)	0.33	0.24	0.25
(f_2, m_2)	0.37	0.48	0.29
Panel C—Divorce rate:			
(f_1, m_1)	0.07	0.63	0.06
(f_2, m_1)	0.09	0.10	0.11
(f_1, m_2)	0.09	0.64	0.09
(f_2, m_2)	0.17	0.16	0.17

NOTE—For each marriage type, the baseline column reports the average female Pareto weight (Panels A–B) and divorce rate (Panel C) in the estimated model. The "Wage male shock" and "Match-quality shock" columns report the corresponding averages after a one–standard-deviation permanent negative shock to men's wages or to match quality at age 30, respectively. Panels A and B distinguish couples who remain always married and always divorced over ages 25–49. Divorce rates are annual hazards conditional on being married at the start of the period.

How Do Couples Reallocate Time in Response To Shocks?—Table 27 reports average weekly labor-market and childcare hours for men and women under the baseline and the two shocks, separately for always-married and always-divorced couples. Following the negative wage shock to men, women increase their market hours and reduce their childcare time, while men reduce market hours and spend more time in childcare. Among always-married couples, women's labor supply rises by 2—5 hours per week (Panel A) and their childcare time falls by around 4—5 hours (Panel B), whereas men's market hours decline slightly and their childcare time increases by 4—9 hours. These standard substitution effects are even more pronounced for always-divorced couples: women's market hours increase by roughly 7—10 hours and men's labor supply falls by 4—7 hours, with corresponding changes in childcare time (see Appendix G for these results).

In contrast, the match-quality shock generates much smaller responses in labor and childcare hours. Across all marriages, changes in market and childcare time are modest relative to those induced by the wage shock, typically 0—2 hours per week (refer to Appendix G for the sample of always divorced). This reinforces the interpretation that match quality primarily operates through the allocation of surplus and bargaining power, while leaving aggregate time allocations comparatively less affected.

The way couples relocate time in response to negative shocks is personality-contingent. After the male wage shock, personality influences who is the natural insurer within the couple. When the high-productivity spouse is the wife (type-1), she substitutes more into the market and the husband into childcare; when she is low-productivity (type-2), the responses lean more on the husband's time. Personality interacts only weakly with match-quality shocks in terms of hours, because those shocks act mainly through bargaining power and surplus division

Table 20: Wage and Match-Quality Negative Shocks—Labor-Market and Childcare Hours

Couple	Baseline		Wage male shock		Match-quality shock	
	Women	Men	Women	Men	Women	Men
Panel A—Labor-market hours, always married:						
(f_1, m_1)	24.2	49.2	5.4	0.0	0.6	-1.8
(f_2, m_1)	26.3	49.5	3.6	0.3	0.4	-0.8
(f_1, m_2)	24.4	49.5	3.6	-1.4	0.0	-1.1
(f_2, m_2)	26.7	49.8	1.9	-1.1	-0.8	-0.4
Panel B—Childcare hours, always married:						
(f_1, m_1)	30.0	11.3	-4.9	4.2	2.6	5.9
(f_2, m_1)	27.9	10.3	-4.9	4.7	1.7	5.6
(f_1, m_2)	29.9	10.8	-4.7	7.4	1.1	5.6
(f_2, m_2)	27.6	9.9	-4.9	8.6	1.3	5.3

NOTE—For each couple type, the first two columns report baseline average weekly hours in market work or childcare for women and men. Columns labelled "Wage male shock" and "Match-quality shock" report the *change* in weekly hours relative to this baseline after a one–standard-deviation permanent negative shock to men's wages or to match quality at age 30, respectively. Positive (negative) entries indicate an increase (decrease) in hours. The sample is restricted to simulated couples who remain always married between ages 25 and 49. Refer to Appendix G for results using a sample of divorced couples.

Who Bears the Welfare Costs of Shocks?—To quantify welfare effects, we compute consumption-equivalent variations (CEVs) for men and women in each couple type, defined as the uniform proportional change in expected lifetime consumption that would make an individual indifferent between the baseline and the shock scenario. Table 21 summarizes the *within-household* incidence of each shock by reporting the difference $\text{CEV}_{\text{women}} - \text{CEV}_{\text{men}}$ (in percentages). Positive values indicate that women lose less (or gain more) than men; negative values indicate that women are more adversely affected.

Male wage shocks are gender- and personality-asymmetric: men bear more of the welfare cost, and the asymmetry is strongest when a high-type woman is matched to a low-type man. As shown in Table 21, CEV differences are positive for all personality marriages, ranging from 0.34 points for (f_1, m_1) to over 16 points for (f_1, m_2). Since CEVs are negative in response to an adverse shock, these positive differences mean that women's welfare falls by less than men's: within couples, women are systematically better insured than men against adverse income shocks inside households. Under limited commitment, the equilibrium allocation partially insures women against the male wage shock by giving them relatively more consumption or leisure. The insurance mechanism is especially strong in mixed couples, like (f_1, m_2), where the type-1 wife's outside option is very strong relative to her husband's.

Match-quality shocks, in contrast, systematically reduce women's share of the marital surplus. CEV differences are negative for all personality marriages, especially in (f_1, m_1) and (f_1, m_2), implying that women lose more welfare than men systematically when relationship quality deteriorates. Combined with the earlier evidence on bargaining power, this indicates that lower match quality primarily changes surplus away from women, even when divorce rates move very little. These results suggest that, in our setting, personality-related match quality is more important for how the costs of relational shocks are shared between spouses than for whether marriages end up divorcing, since the match-quality shock has small effects on divorce probabilities but systematically shifts welfare away from women.

Table 21: CEV Gender Gap by Personality Marriage Type

Couple	Male wage shock	Match-quality shock
(f_1, m_1)	0.34	-7.40
(f_2, m_1)	0.82	-1.17
(f_1, m_2)	16.12	-6.03
(f_2, m_2)	9.33	-0.11

NOTE—Entries report $\text{CEV}_{\text{women}} - \text{CEV}_{\text{men}}$ (in percent) within each personality match. Positive values indicate that women gain more (or lose less) than men from the shock.

8 Conclusion

In this paper, we study how personality shapes marriage behavior and intra-household allocations over the life cycle, combining reduced-form evidence from the HILDA Survey with the estimation of a dynamic collective household model with endogenous marriage, divorce, and limited commitment. We focus on three channels through which personality can matter economically—labor-market productivity, preferences for children, and match quality—and quantify how these channels jointly generate systematic differences in specialization, bargaining, and marital stability across couple types.

The data yield three robust facts. First, personality is systematically related to wages: some personality types consistently earn more, even after conditioning on standard controls. Second, personality predicts how adults allocate time between market work and childcare, and these individual patterns translate into clear time-use differences across couple types. Third, personality is strongly associated with marriage formation and dissolution: it helps predict who marries whom, how long marriages last, and the extent of assortative matching on traits in the marriage market.

To interpret these patterns, we build and estimate a structural life-cycle model in which personality affects behavior only through three primitives: the wage process, the taste for home-produced child output, and the expected level of match quality. Within marriage, decisions are Pareto efficient subject to limited commitment. The estimated model matches well the observed distribution of wages, childcare and market hours, as well as marriage sorting and divorce hazards.

We then use the model to quantify the mechanisms linking personality to household outcomes. We show that, on average, roughly half of the impact of personality on divorce, bargaining power, and time allocation operates through wage heterogeneity between spouses, roughly one-third through differences in match quality, and the remaining quarter through heterogeneity in tastes for child production. This points out that personality thus shapes both the level and the structure of outside options, and hence the scope for intra-household insurance and cooperation.

Finally, the counterfactual exercises show that large negative shocks systematically reshape who holds power in the household, how stable marriages are, and who ultimately bears the welfare losses. Shocks that hit economic resources tend to reallocate bargaining power and time in ways that partly insure one spouse at the expense of the other, while shocks to relationship quality mostly change how the existing surplus is divided rather than whether couples separate. Overall, personality matters not only for how couples sort and specialize, but also for how they renegotiate in the face of shocks, whether they stay together, and how the costs of adverse events are shared between partners.

Several limitations remain. Our child-production technology is deliberately static and parsimonious; embedding personality into a full dynamic skill-formation framework with child outcomes would be a natural next step. We treat personality as fixed and type-based; allowing traits to evolve with life events, or enriching the typology, could capture additional feedback between marriage, work, and non-cognitive skills. The marriage market is stylized and abstracts from educational choices, fertility decisions, and policy environments that may interact with personality—for example, tax systems, childcare subsidies, or universal transfers. Exploring such policy counterfactuals in a richer setting would help assess how insurance within couples and gender gaps in welfare respond to institutional change. Despite these simplifications, our results highlight that personality-driven heterogeneity in wages, match quality, and preferences for children is an important determinant of who marries whom, how couples specialize, how they share risks, and who ultimately bears the costs of shocks over the life cycle.

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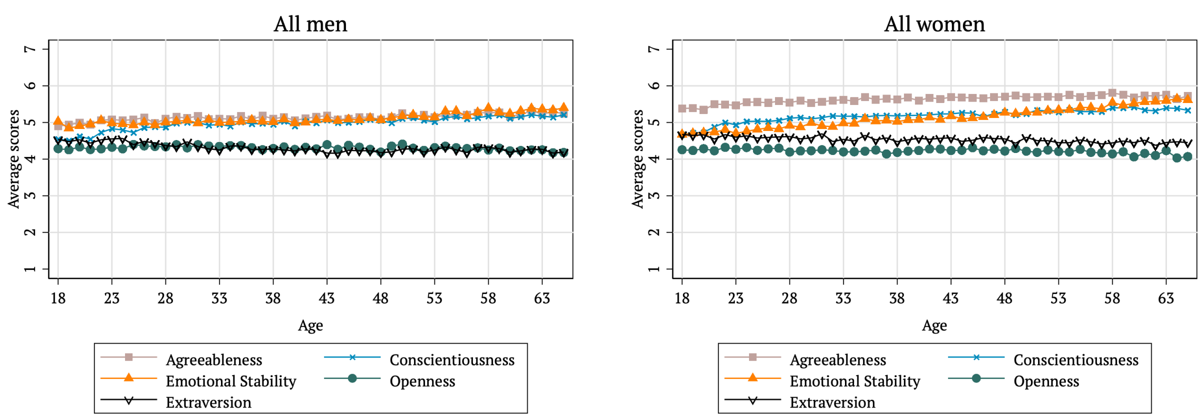
A Stability of Personality Traits

Figure 3 shows the average Big Five personality scores computed for each age category and gender, using data from the 2005, 2009, 2013, and 2017 waves (when personality is observed). In both genders, conscientiousness and emotional stability are the only traits that exhibit a very small increment over time (less than one absolute point). In Figure 4, we show the distribution of person-specific changes in personality over time. For each individual in the sample, we compute the absolute difference between their personality score in the first wave and in the last wave in which it was measured. Across all personality traits, the distribution of absolute changes is centered around 0 points. We interpret these findings as evidence that personality traits remain stable throughout adulthood in our sample.

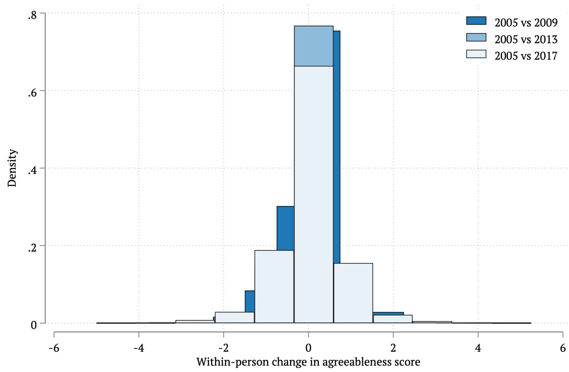
Figure 3: Average personality by age and gender



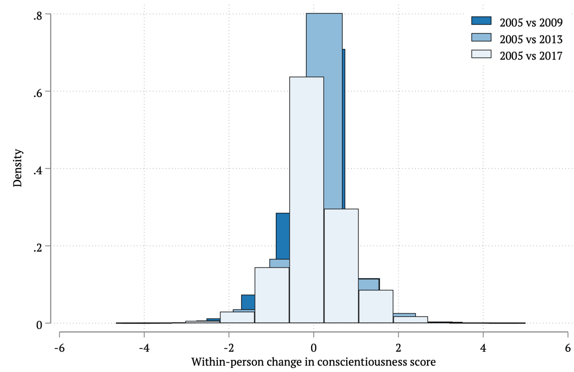
NOTE—This figure illustrates the average personality scores by age and gender across all HILDA waves.

Figure 4: Within-person changes in personality scores over time

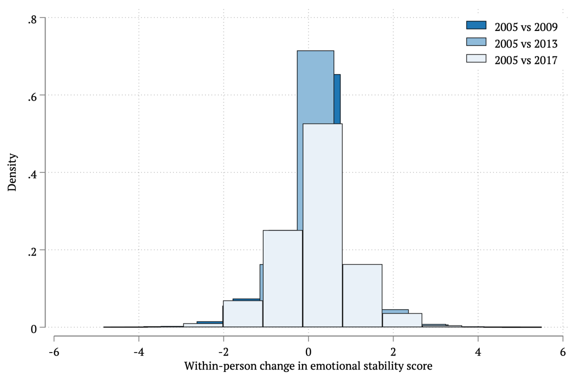
(a) Agreeableness



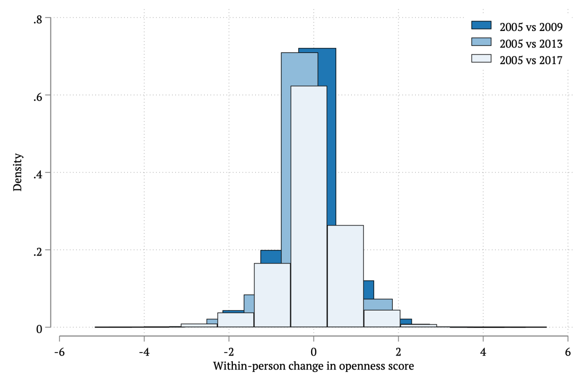
(b) Conscientiousness



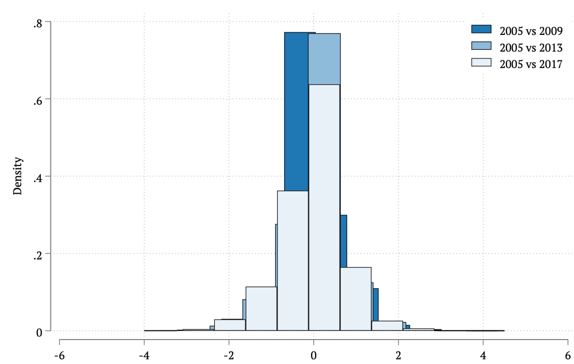
(c) Emotional stability



(d) Openness



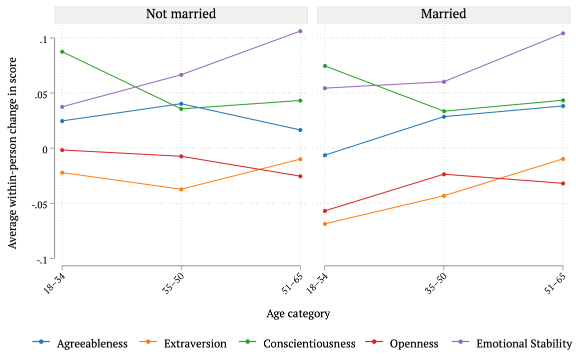
(e) Extraversion



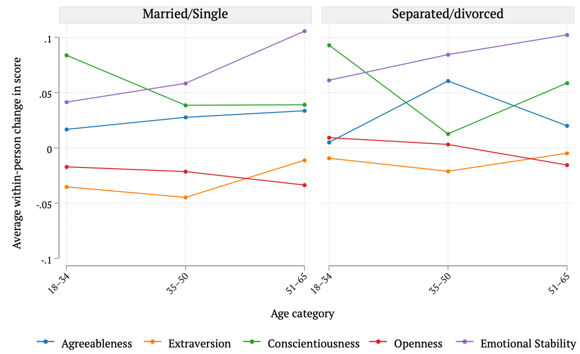
NOTE—This figure shows the distribution of within-individual changes in personality scores over time. Scores range from a minimum of 1 to a maximum of 7. For each person in the sample, we calculate the difference between their personality score in the first wave (2005) and the three subsequent waves (2009, 2013, 2017) when personality is also measured.

Figure 5: Within-person average changes in personality by selected variables

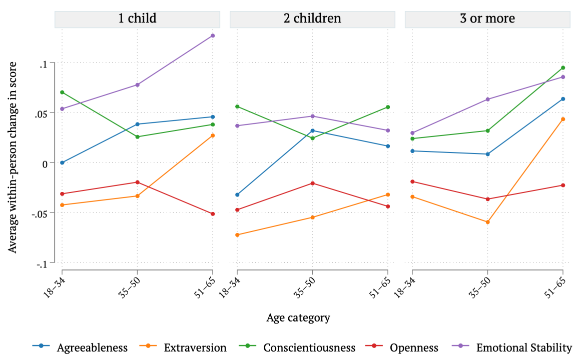
(a) Married vs not married



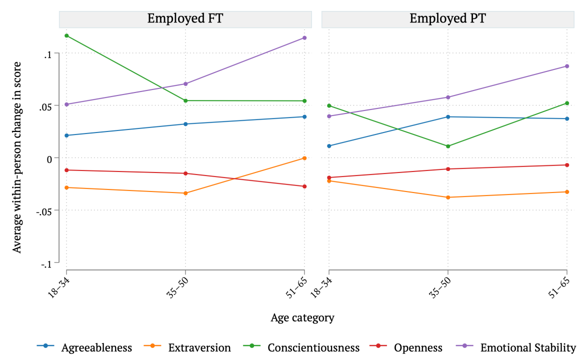
(b) Separated/divorced vs married/singles



(c) By number of children



(d) Employed full-time vs part-time



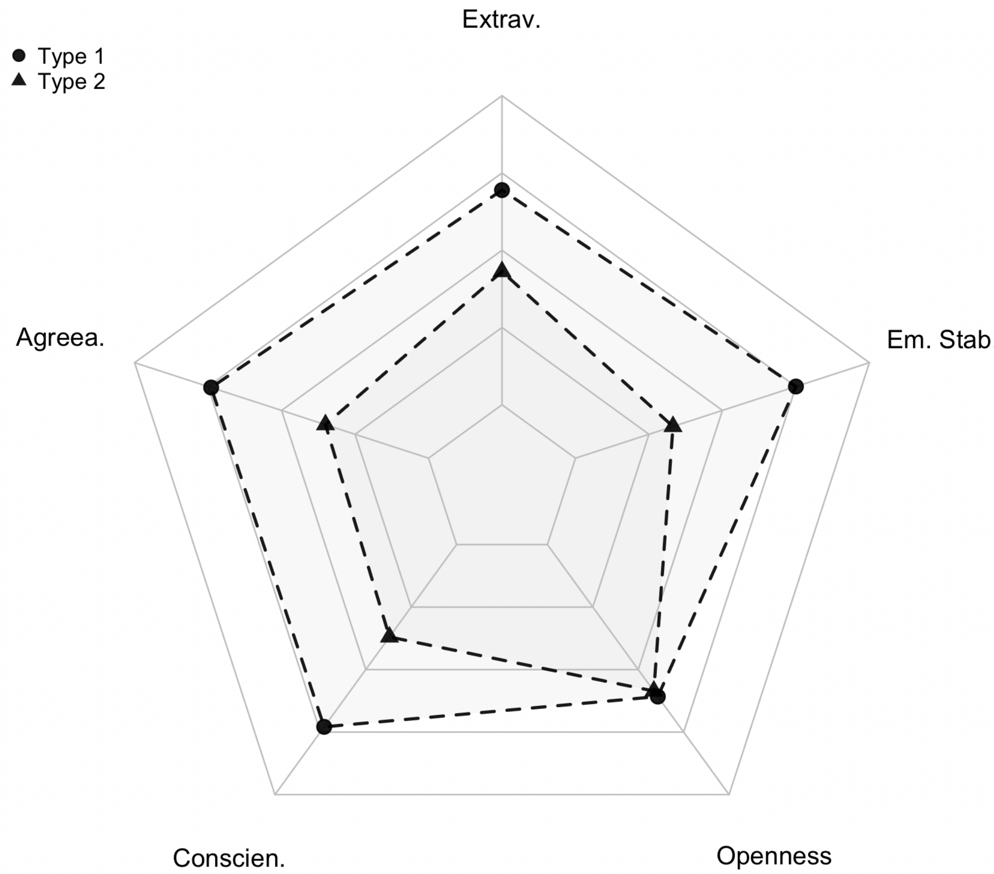
NOTE—This figure shows the average of within-person changes in personality scores over time (age categories) across groups given by selected variables. Raw scores range from a minimum of 1 to a maximum of 7. The y-axes show the average within-person change in raw scores.

B Construction and Description of Personality Types

Cluster Analysis—The objective of clustering is to divide observations into groups where observations within a group are relatively similar, and observations of different groups are dissimilar. The clustering method that we use corresponds to K-means with hierarchical centroids as starting values. K-means clustering aims to split the sample into non-overlapping groups so that within-cluster variation is as small as possible. For further details, see Lattin et al. (2003). Figure 7 shows the cluster solution in our sample.

Clusters Validation—In general, selecting a cluster solution is based on the interpretation

Figure 6: Two-Cluster Solution Based on the Big Five Personalities



NOTE—Personality types were constructed by K-means clustering with hierarchical centroids.

Table 22: Correlation Matrix of Big Five Personality Traits

	Extraversion	Agreeableness	Conscientiousness	Openness	Emotional Stability
Extraversion	1				
Agreeableness	0.19 (0.01) [-0.07]	1			
Conscientiousness	0.14 (-0.14) [-0.13]	0.27 (0.02) [-0.04]	1		
Openness	0.06 (0.03) [-0.03]	0.28 (0.16) [0.31]	0.06 (0.01) [-0.05]	1	
Emotional Stability	0.20 (-0.01) [-0.02]	0.16 (-0.02) [-0.19]	0.32 (0.04) [0.06]	-0.18 (-0.22) [-0.37]	1

NOTE—This table reports the correlation matrix of the Big Five personality traits based on raw scores. Numbers in **black** corresponds to the full sample; numbers in blue corresponds to individuals of type 1; and numbers in orange corresponds to individuals of type 2.

that can be given to the chosen clusters, summary statistics trading-off between adequacy and complexity, and the stability of the solution. Table 11 compares fit measures across several cluster solutions. The pseudo–F statistic captures the trade-off between the number of clusters and within-cluster heterogeneity. The hit rate provides the percentage

Table 23: Anchored Personality Types

Predicted values	Males Type 1	Males Type 2	Males Δ	Females Type 1	Females Type 2	Females Δ
Log earnings (hourly wage $\times$ paid hours)	7.05	6.99	-0.05***	6.51	6.44	-0.07***
Paid hours (weekly hours)	42.00	41.26	-0.73***	29.29	28.55	-0.73***
Childcare hours (weekly hours)	8.40	7.48	-0.91***	17.72	16.41	-1.31***
Probability of divorce	0.09	0.07	-0.02***	0.12	0.10	-0.02***
Probability of marriage	0.68	0.67	-0.01**	0.66	0.65	-0.01**

NOTE—This table reports regression-adjusted predicted values (margins) by individual personality type, estimated separately for men and women. Regressions control for individual type, schooling, age and age squared, year fixed effects and state fixed effects. Column Δ reports the difference (Type 2 minus Type 1); significance of the pairwise comparison is shown by the stars: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

of correctly classified observations when verifying the generalizability of the cluster solution. Finally, the Adjusted Rand Index indicates how far the cluster solution is from a random classification of observations. For further information, see Lattin et al. (2003). As seen in Table 11, the cluster solution with the better fit is that with two clusters.

Table 24: Cluster Solution Validation

Clusters:	Pseudo–F	Hit Rate	Adjusted Rand Index
2	5268.1	0.991	0.964
3	4565.7	0.966	0.903
4	4041.6	0.833	0.634
5	3704.3	0.945	0.869
6	3377.1	0.781	0.588

NOTE—Cluster solutions were constructed by K-means clustering with hierarchical centroids. The pseudo–F statistic trade-offs between simplicity (number of clusters) and adequacy (within-cluster heterogeneity). The hit rate corresponds to the percentage of correct classification when verifying the generalizability of the cluster solution. The Adjusted Rand Index will be zero in case of random classification and 1 in case of perfect agreement. See Lattin et al., (2001) for further details.

Stability of the Cluster Solution—In this subsection, we analyze whether the personality type of an individual is stable over time. To ease the computational burden when computing the cluster solution, we divide the full sample (waves 2 to 19) into subsamples with a smaller number of waves and extract the cluster solution for each subsample. Within these subsamples, we check the evolution of personality types for each person by computing different measures of variability.

As shown in Table 12, there is very little within-individual variation in each subsample, as illustrated by the standard deviation, coefficient of variation, and range. As a further exercise, we check the variation of the cluster solution in a subsample with a few initial waves (2 to 4) and a few final waves (17 to 19). Overall, we observe even less within-individual variation in personality types than for the other subsamples. This information provides evidence supporting that the personality type of an individual remains stable over time.

Table 25: Stability of Personality Types

			Measures of variation:		
Subsamples:	**Size**	**Mean**	**Std. Dev.**	**Coef. Var.**	**Range**
Waves 2–6	45,565	1.98	0.10	5.62	0.23
Waves 7–11	52,569	1.92	0.09	5.58	0.20
Waves 12–15	52,481	2.07	0.10	5.98	0.20
Waves 16–19	50,867	1.92	0.10	5.62	0.20
Waves 2–4 and 17–19	63,788	2.07	0.08	4.97	0.18

C Duration Models

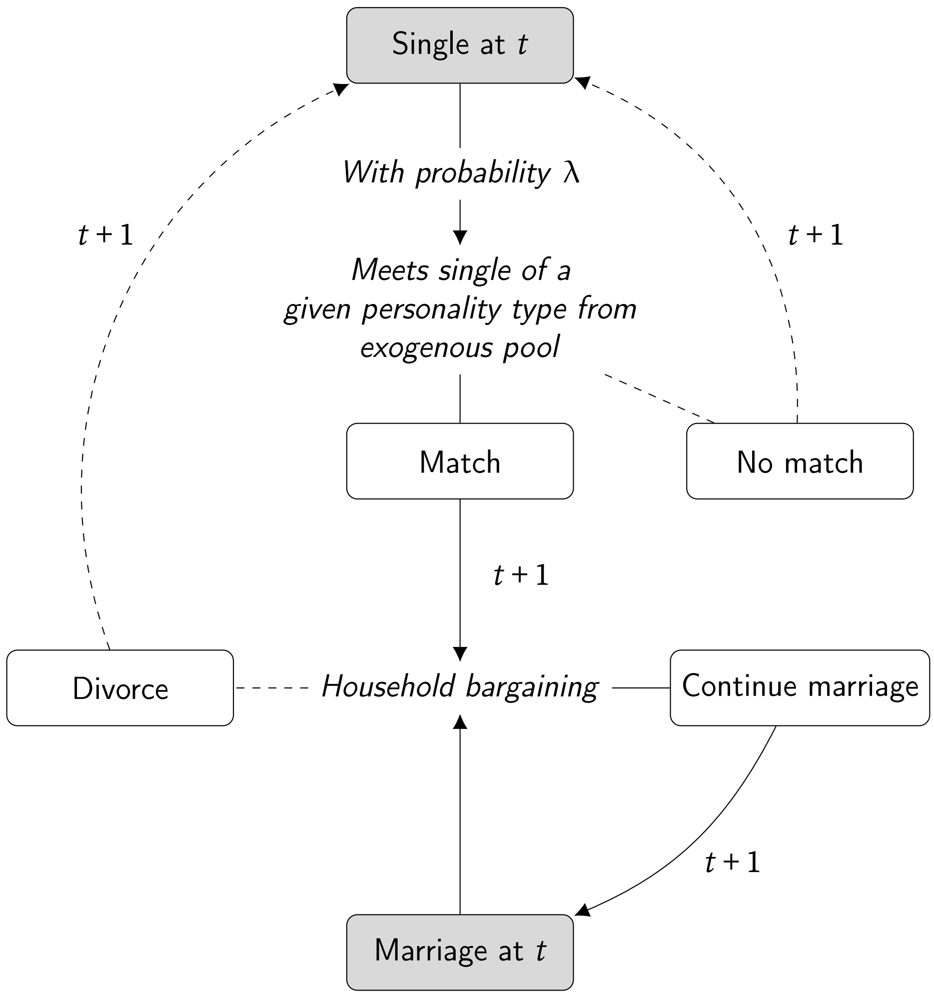
To study the association between personality and the probability of marriage and divorce, we estimate Cox proportional hazard models, which relate a set of independent variables to the hazard rate (see Figure **??** for the main results). The hazard rate is the rate at which an event occurs in a given period t, conditional on not happening until that period. The unit of observation in this model are marriage spells (i.e., the number of years spent in a marriage). The Cox regression assumes that a set of covariates ($\mathbf{x}$) together with a vector of parameters ($\tilde{\boldsymbol{\psi}}$), shift proportionally the baseline hazard ($\tilde{\lambda}_0(t)$) that captures unobserved heterogeneity. Formally, we estimate:

$$\tilde{\lambda}(t|\mathbf{x}) = \exp(\mathbf{x}^\top \tilde{\boldsymbol{\psi}}^i)\tilde{\lambda}_0(t), \tag{31}$$

where $\tilde{\lambda}$ is the hazard rate and includes, among other controls, couples' personality type. One convenient feature of this model is that it controls for right censoring, which takes place when a participant exits the study before experiencing the event of interest or when the study concludes before the event has happened.

D Overview of the Model

Figure 7: Overview and Timing Structure of the Model



NOTE—The diagram shows the within-period model timing structure. Gray (white) squares indicate the point at which objects and expectations in the model start (end). Solid (dashed) lines illustrate paths that lead to marriage (singlehood).

E Identification Arguments

Child Production Parameters—We make the standard assumption that domestic goods are produced in an efficient (i.e., cost-minimizing) way. The identification arguments for the production function parameters sketched here follow much of the structure in

Chiang and Wainwright (2005). When price inputs (wages) are exogenously determined, we can work out the cost-minimization problem of a household to derive the optimal input combination.

Recall that the production function of a couple is defined by:

$$Q_t^H = \left[\psi_m h_{m,t}^{\rho} + (1-\psi_m)h_{f,t}^{\rho}\right]^{\frac{1}{\rho}}. \tag{32}$$

Note that:

$$(Q_t^H)^{1-\rho} = \left[\psi_m h_{m,t}^{\rho} + (1-\psi_m)h_{f,t}^{\rho}\right]^{\frac{1-\rho}{\rho}}. \tag{33}$$

Given our functional form for the (deterministic) household production function, the two marginal products can be written as:

$$\begin{aligned}\frac{\partial Q_t^H}{\partial h_{m,t}} &= \frac{1}{\rho}\left[\psi_m h_{m,t}^{\rho} + (1-\psi_m)h_{f,t}^{\rho}\right]^{\frac{1-\rho}{\rho}} \rho\psi_m h_{m,t}^{(\rho-1)},\\ &= \psi_m (Q_t^H)^{[1-\rho]} h_{m,t}^{[\rho-1]},\\ &= \psi_m (Q_t^H)^{[1-\rho]} h_{m,t}^{-[1-\rho]},\\ &= \psi_m (\frac{Q_t^H}{h_{m,t}})^{(1-\rho} > 0.\end{aligned} \tag{34}$$

$$\begin{aligned}\frac{\partial Q_t^H}{\partial h_{f,t}} &= \frac{1}{\rho}\left[\psi_m h_{m,t}^{\rho} + (1-\psi_m)h_{f,t}^{\rho}\right]^{\frac{1-\rho}{\rho}} \rho(1-\psi_m) h_{f,t}^{(\rho-1)},\\ &= (1-\psi_m)(Q_t^H)^{[1-\rho]} h_{f,t}^{[\rho-1]},\\ &= (1-\psi_m)(Q_t^H)^{[1-\rho]} h_{f,t}^{-[1-\rho]},\\ &= (1-\psi_m)(\frac{Q_t^H}{h_{f,t}})^{(1-\rho)} > 0.\end{aligned} \tag{35}$$

Both expressions are positive whenever $h_{m,t} > 0$ and $h_{f,t} > 0$. In a competitive setting, the household chooses $(h_{m,t}, h_{f,t})$ to minimize the total cost of producing one unit of Q_t^H. Equivalently, at the optimum:

$$\frac{w_{m,t}}{w_{f,t}} = \frac{\frac{\partial Q_t^H}{\partial h_{m,t}}}{\frac{\partial Q_t^H}{\partial h_{f,t}}} = \frac{\psi_m \left(\frac{Q_t^H}{h_{m,t}}\right)^{1-\rho}}{(1-\psi_m)\left(\frac{Q_t^H}{h_{f,t}}\right)^{1-\rho}} = \frac{\psi_m}{1-\psi_m}\left(\frac{h_{f,t}}{h_{m,t}}\right)^{1-\rho}. \tag{36}$$

Rearrange for the optimal input ratio $(h^*_{f,t}/h^*_{m,t})$. One finds:

$$\frac{h^*_{f,t}}{h^*_{m,t}} = B\left(\frac{w_{m,t}}{w_{f,t}}\right)^{\frac{1}{[1-\rho]}} \quad \text{with} \quad B = \left[\frac{(1-\psi_m)}{\psi_m}\right]^{\frac{1}{[1-\rho]}}, \tag{37}$$

which links ψ_m and ρ to observed $(h_{f,t}/h_{m,t})$ and $(w_{m,t}/w_{f,t})$.

Take logs and add an error term to reflect measurement error (e_t):

$$\ln\left(\frac{h_{f,t}}{h_{m,t}}\right) = \alpha + \frac{1}{[1-\rho]}\ln\left(\frac{w_{m,t}}{w_{f,t}}\right) + e_t, \tag{38}$$

with $\alpha = \ln B$. Then, we can define the following conditional moment conditions:

$$\mathbb{E}\left[\ln\left(\frac{h_{f,t}}{h_{m,t}}\right) - \alpha - \frac{1}{[1-\rho]}\ln\left(\frac{w_{m,t}}{w_{f,t}}\right)\right] = \mathbb{E}[g_\rho(\rho; h_{f,t}h_{m,t}, w_{m,t}w_{f,t})] = 0, \tag{39}$$

where $g_\rho(\cdot)$ is a known nonlinear function of observables and parameters.

Given ρ, we return to the optimal input ratio in equation (37). Rearranging, we can show that the husband's productivity in childcare time, ψ_m, is defined as the share of total effective (already accounting for substitution), cost-adjusted childcare input that comes from the husband:

$$
\begin{aligned}
\frac{w_{f,t}}{w_{m,t}} &= (\frac{\psi_m}{1-\psi_m})(\frac{h^*_{f,t}}{h^*_{m,t}})^{[1-\rho]} \\
w_{m,t}(1-\psi_m) &= \psi_m w_{f,t}(\frac{h^*_{f,t}}{h^*_{m,t}})^{[1-\rho]} \\
\psi_m &= \frac{w_{m,t}}{w_{m,t} + w_{f,t}(\frac{h^*_{f,t}}{h^*_{m,t}})^{[1-\rho]}} \\
\psi_m &= \frac{w_{m,t}h^{[1-\rho]}_{m,t}}{w_{m,t}h^{[1-\rho]}_{m,t} + w_{f,t}h^{[1-\rho]}_{f,t}}
\end{aligned} \tag{40}
$$

which can be used to write a moment condition:

$$
\mathbb{E}\Big[\frac{w_{m,t}h^{[1-\rho]}_{m,t}}{w_{m,t}h^{[1-\rho]}_{m,t} + w_{f,t}h^{[1-\rho]}_{f,t}} - \psi_m\Big] = \mathbb{E}\Big[g_{\psi_m}(\psi_m | h_{f,t}, h_{m,t}, w_{m,t}, w_{f,t}, \rho)\Big] = 0. \tag{41}
$$

Preferences Parameters—The moment conditions sketched in this section come from solving the intra-period problem for a married couple. The continuation value can be potentially ignored, because every intra-period first-order condition is identical to what one would write in a single-period household model, conditional on the given Pareto weight configuration at that period (Marcet & Marimon, 2019).

Given the model structure, we can write the intra-period constrained problem of a married couple as:

$$V_t^H(\mathbf{\Omega}_t^H) = \max_{\mathbf{a}_t^M} \left\{ \mu_{f,t}\left[\frac{c_{f,t}^{1-\gamma_c}}{1-\gamma_c} + \frac{l_{f,t}^{1-\gamma_{f,l}}}{1-\gamma_{f,l}} + \tau_{f,t}(\pi_{f,J})\, Q_t^H + \theta_t^H(\pi_J)\right]\right.$$
$$+ \mu_{m,t}\left[\frac{c_{m,t}^{1-\gamma_c}}{1-\gamma_c} + \frac{l_{m,t}^{1-\gamma_{m,l}}}{1-\gamma_{m,l}} + \tau_{m,t}(\pi_{m,J})\, Q_t^H + \theta_t^H(\pi_J)\right]$$
$$\left. + \beta\mathbb{E}_{|\mathfrak{I}_t^H}\left[V_{t+1}^H(\mathbf{\Omega}_{t+1}^H)\right]\right\} \tag{42}$$

subject to

$$A_{t+1}^H + c_{f,t} + c_{m,t} = (1+r)A_t^H + n_{f,t}w_{f,t} + n_{m,t}w_{m,t},$$
$$l_{f,t} + n_{f,t} + h_{f,t} = T_{m,t},$$
$$l_{f,t} + n_{f,t} + h_{f,t} = T_{f,t}.$$

The Lagrangian of this problem is given by:

$$\begin{aligned}\mathcal{L}_t^{\mathrm{H}} = {} & \mu_{f,t}\left[\frac{c_{f,t}^{1-\gamma_c}}{1-\gamma_c} + \frac{l_{f,t}^{1-\gamma_{f,l}}}{1-\gamma_{f,l}} + \tau_{f,t}(\pi_{f,J})\, Q_t^H + \theta_t^H(\pi_J)\right] \\ & + \mu_{m,t}\left[\frac{c_{m,t}^{1-\gamma_c}}{1-\gamma_c} + \frac{l_{m,t}^{1-\gamma_{m,l}}}{1-\gamma_{m,l}} + \tau_{m,t}(\pi_{m,J})\, Q_t^H + \theta_t^H(\pi_J)\right] \\ & + \Lambda_t\left[(1+r)\,A_t^H + w_{f,t}\,n_{f,t} + w_{m,t}\,n_{m,t} - c_{f,t} - c_{m,t} - A_{t+1}^H\right] \\ & + \Xi_{f,t}\left[T_{f,t} - n_{f,t} - h_{f,t} - l_{f,t}\right] + \Xi_{m,t}\left[T_{m,t} - n_{m,t} - h_{m,t} - l_{m,t}\right].\end{aligned} \tag{43}$$

Working out the first-order conditions (F.O.C), we get the following equalities:

$$\begin{aligned}\Lambda_t &= \mu_{m,t}c_{m,t}^{-\gamma_c} = \mu_{f,t}c_{f,t}^{-\gamma_c} \\ \Xi_{f,t} &= \Lambda_t w_{f,t} = \mu_{f,t}\tau_{f,t}(\pi_{f,J})\frac{\partial Q_t^H}{\partial h_{f,t}} \\ \Xi_{m,t} &= \Lambda_t w_{m,t} = \mu_{m,t}\tau_{m,t}(\pi_{m,J})\frac{\partial Q_t^H}{\partial h_{m,t}}\end{aligned} \tag{44}$$

Because $l_{i,t} = T_{i,t} - n_{i,t} - h_{i,t}$, we can also write the optimality conditions as:

$$\frac{\partial \mathcal{L}_t^{\mathrm{H}}}{\partial n_{i,t}} = \mu_{i,t} \frac{\partial}{\partial l_{i,t}} [\frac{l_{i,t}^{1-\gamma_{i,l}}}{1-\gamma_{i,l}}] = c_{i,t}^{-\gamma_c} w_{i,t} \quad \forall i, \\ = \mu_{i,t} l_{i,t}^{-\gamma_{i,l}} = c_{i,t}^{-\gamma_c} w_{i,t}. \tag{45}$$

For simplicity, as noted, let the couple's continuation value not enter the first-order conditions (FOC) directly. Assuming interior solutions, we get the following equalities (see condition (44) in the Appendix F):

$$\mu_{f,t}\tau_{f,t}(\pi_{f,J})(\frac{\partial Q_t^H}{\partial h_{f,t}}) = \mu_{f,t} c_{f,t}^{-\gamma_c} w_{f,t} \quad \text{and} \quad \mu_{m,t}\tau_{m,t}(\pi_{m,J})(\frac{\partial Q_t^H}{\partial h_{m,t}}) = \mu_{m,t} c_{m,t}^{-\gamma_c} w_{m,t}. \tag{46}$$

From the marginal products in equation (34) and (35), we have known expressions for $\partial Q_t^H / \partial h_{i,t}$ for all i. Because child production parameters ψ_m and ρ are identified (see discussion above), we can redefine the marginal products of time input as:

$$\frac{\partial Q_t^H}{\partial h_{m,t}} = \Psi_{m,t} h_{m,t}^{[\rho-1]} \quad \text{and} \quad \frac{\partial Q_t^H}{\partial h_{f,t}} = \Psi_{f,t} h_{f,t}^{[\rho-1]}, \tag{47}$$

where $\Psi_{i,t}$ for all i are known functions: we can estimate ψ_m and ρ, and we observe $(h_{m,t}, h_{f,t})$.

Plugging equations (47) into equations (46), we get an expression for the taste of child production:

$$\tau_{f,t}(\pi_{f,J}) = \frac{c^{-\gamma_c} w_{f,t}}{\Psi_{f,t} h_{f,t}^{[\rho-1]}} \quad \text{and} \quad \tau_{m,t}(\pi_{m,J}) = \frac{c^{-\gamma_c} w_{m,t}}{\Psi_{m,t} h_{m,t}^{[\rho-1]}}, \tag{48}$$

Intuitively, $\tau_{i,t}$ equates the marginal utility value of an extra hour of childcare (left-hand side) to the marginal utility value of the forgone consumption from working an extra hour at wage $w_{i,t}$ (right-hand side). Higher $\tau_{i,t}$ means the model must rationalize a relatively high childcare input $h_{i,t}$ despite the same wage and consumption profile.

In practice, consumption $c_{i,t}$ and assets are not observed, so (48) cannot be used in levels. Identification instead relies on *relative* FOCs and cross-personality variation.

Dividing the childcare FOCs for the two spouses yields

$$\frac{\tau_{f,t}(\pi_{f,J})}{\tau_{m,t}(\pi_{m,J})} = \frac{c_{f,t}^{-\gamma_c} w_{f,t}}{c_{m,t}^{-\gamma_c} w_{m,t}} \frac{\Psi_{m,t} h_{m,t}^{\rho-1}}{\Psi_{f,t} h_{f,t}^{\rho-1}}. \tag{49}$$

Using the intrahousehold sharing rule from the consumption FOCs,

$$\frac{\mu_{m,t}}{\mu_{f,t}} = \frac{c_{f,t}^{-\gamma_c}}{c_{m,t}^{-\gamma_c}}, \tag{50}$$

the ratio $\frac{c_{f,t}^{-\gamma_c}}{c_{m,t}^{-\gamma_c}}$ can be written in terms of the Pareto weights, which are themselves recovered from the collective consumption-sharing structure in the estimation. Substituting this into (49) eliminates unobserved $c_{i,t}$ and yields a relation between $\tau_{f,t}/\tau_{m,t}$ and observables $(w_{f,t}, w_{m,t}, h_{f,t}, h_{m,t})$ plus estimated primitives $(\psi_m, \rho, \mu_{f,t}, \mu_{m,t})$.

Formally, for each gender–personality cell $(i, \pi_{i,j})$ and age t, we can define a moment condition of the form

$$\mathbb{E}\left[g_\tau\left(\frac{\tau_{f,t}(\pi_{f,J})}{\tau_{m,t}(\pi_{m,J})} \mid w_{f,t}, w_{m,t}, h_{f,t}, h_{m,t}, \psi_m, \rho, \mu_{f,t}, \mu_{m,t}\right)\right] = 0, \tag{51}$$

where $g_\tau(\cdot)$ represents the restriction implied by (49). Variation in wages, childcare inputs, and personality composition across couples and over the life cycle then identifies the relative taste parameters $\tau_{i,t}(\pi_{i,J})$ up to a common normalization.

As noted, although we do not observe consumption (nor assets) directly, we can still recover $\tau_{i,t}(\pi_{i,J})$ up to scale by exploiting relative first-order conditions and the consumption-sharing rule. Identification strategies that work with unobserved consumption via residualized moments or replacement functions are standard in the structural literature on skills and household production (Cunha, Heckman, & Schennach, 2010; Del Boca et al., 2014; Verriest, 2024).

Finally, from the intra-period problem, the FOCs for leisure and hours worked imply

$$\mu_{i,t}\, l_{i,t}^{-\gamma_{i,l}} = \Xi_{i,t} \quad \text{and} \quad \Xi_{i,t} = \Lambda_t w_{i,t} = \mu_{i,t} c_{i,t}^{-\gamma_c} w_{i,t},$$

so that, for each spouse $i \in \{f, m\}$,

$$l_{i,t}^{-\gamma_{i,l}} = c_{i,t}^{-\gamma_c} w_{i,t}. \tag{52}$$

Using $l_{i,t} = T_{i,t} - n_{i,t} - h_{i,t}$, this condition links observed leisure, wages, and (unobserved) consumption to the curvature of leisure. Taking logs on both sides of (52) gives

$$-\gamma_{i,l} \ln l_{i,t} = -\gamma_c \ln c_{i,t} + \ln w_{i,t}, \tag{53}$$

or, equivalently,

$$\gamma_{i,l} = \frac{\gamma_c \ln c_{i,t} - \ln w_{i,t}}{\ln l_{i,t}}, \quad i \in \{f, m\}. \tag{54}$$

Equation (54) shows that, conditional on $(c_{i,t}, w_{i,t})$ and γ_c (which is fixed from the literature), the leisure curvature $\gamma_{i,l}$ is the value that makes the observed leisure choice $l_{i,t}$ consistent with the trade-off between earning at wage $w_{i,t}$ and enjoying leisure.

In practice, consumption $c_{i,t}$ is not observed, so (54) is not used in levels. Instead, identification relies on the fact that the same $\gamma_{i,l}$ must rationalize the joint pattern of $(l_{i,t}, w_{i,t})$ across ages and personality types, given the model's consumption-sharing rule and other primitives. Formally, one can define moment conditions of the form

$$\mathbb{E}\left[g_\gamma(l_{i,t} | w_{i,t} \gamma_{i,l}, \gamma_c, \mu_{f,t}, \mu_{m,t})\right] = 0, \tag{55}$$

where $g_\gamma(\cdot)$ represents the restriction implied by (52) once $c_{i,t}$ has been expressed in terms of wages, time use, and the intrahousehold sharing rule. Variation in wages and leisure across gender, personality types, and over the life-cycle then pins down the leisure-risk-aversion parameters $\gamma_{i,l}$.

Match Quality—Because $\theta_t^H(\pi_J)$ is assumed to enter additively in each spouse's utility function, the lowest level of match quality ($\theta_{t,\min}^H(\pi_J)$) that make both $V_{m,t}^H(\mathbf{\Omega}_t^H) \geq V_{m,t}^S(\mathbf{\Omega}_t^S)$ and $V_{f,t}^H(\mathbf{\Omega}_t^H) \geq V_{f,t}^S(\mathbf{\Omega}_t^S)$ could be computed once all other primitives are fixed (see the preceding discussion). Under the distributional assumption that:

$$\theta_t^H(\pi_J) \overset{\text{i.i.d.}}{\sim} N(\mu_\theta(\pi_J), \sigma_\theta^2), \tag{56}$$

the model's predicted marriage probability for a couple type match at age t is:

$$1 - \Phi\left[[\theta^{H}_{t,\min}(\pi_J) - \mu_\theta(\pi_J)]/\sigma_\theta\right], \tag{57}$$

with Φ the standard Normal CDF. By equating this predicted probability to the observed fraction of couples who actually marry upon meeting, we obtain a system of moment conditions in $\mu_\theta(\pi_J)$ and σ_θ. In particular, because $\theta^{H}_{t,\min}(\pi_J)$ varies with age t, using marriage rates at multiple ages (or across different age-categories) would deliver enough moment conditions to identify both the mean and the dispersion parameter.

F Shapley Decomposition

Table 26: Shapley Decomposition of Aggregate Effects by Mechanism

Outcome	ϕ_w	ϕ_θ	ϕ_τ
Divorce Rate	0.10	0.08	0.06
Bargaining Power	1.30	0.90	0.40
Home Hours (Women)	3.40	2.10	1.40
Home Hours (Men)	1.40	1.10	0.80
Market Hours (Women)	2.00	1.60	1.10
Market Hours (Men)	0.60	0.50	0.40

Notes: The table reports Shapley–Owen–Shorrocks decompositions of the total change in each aggregate outcome when all heterogeneity (in wages w, match quality θ, and preferences τ) is removed. Shapley values ϕ_i represent the average marginal contribution of each mechanism $i \in \{w, \theta, \tau\}$ across all possible orderings of exclusion:

$$\phi_i = \frac{1}{3!} \sum_{\pi} \left[f(S_i(\pi) \cup \{i\}) - f(S_i(\pi))\right],$$

where $f(S)$ denotes the simulated outcome when only mechanisms in S are active. All numbers correspond to absolute contributions and sum to the total effect reported under the "All Off" scenario in Table **??**.

G Counterfactuals

Table 27: Income and Match-Quality Shocks: Labor-Market and Childcare Hours

Category	Baseline		Income shock (Δ)		Match-quality shock (Δ)	
Panel C: Labor-market hours, always divorced						
	Women	Men	Women	Men	Women	Men
(f_1, m_1)	18.9	37.6	9.9	-6.7	1.3	-3.6
(f_2, m_1)	20.9	38.7	8.7	-5.7	1.3	-1.0
(f_1, m_2)	18.6	38.8	7.6	-4.4	1.3	-2.7
(f_2, m_2)	19.9	42.4	7.1	-7.4	-0.2	-2.4
Panel D: Childcare hours, always divorced						
	Women	Men	Women	Men	Women	Men
(f_1, m_1)	40.0	18.8	-5.9	5.7	2.0	3.0
(f_2, m_1)	37.3	17.0	-4.0	5.3	0.9	2.9
(f_1, m_2)	39.3	17.5	-6.5	5.5	1.0	3.1
(f_2, m_2)	36.6	15.4	-6.0	8.7	1.0	4.0

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