

**Differences in Pay-Satisfaction Between Single and Cohabiting Women in the  
Netherlands, Moderated by Gender Norms**

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### **Abstract**

One under-explored factor within women's pay satisfaction is 'cohabitation status', referring to being single or in a cohabiting relationship. Existing literature suggests single women show relatively lower pay satisfaction compared to women in a cohabiting relationship. The social-ecological model is used as the theoretical framework in this research to study pay satisfaction in women from an interdisciplinary perspective. A moderator that might strengthen the relationship between pay satisfaction and cohabitation status, included in this research, is gender norms. Accordingly, the first research question is; "Is there a difference in pay satisfaction between women with different cohabitation statuses in the Netherlands?" and if so, the second research question is "Do gender norms strengthen the relation between pay satisfaction and cohabitation status for women in the Netherlands?". Many relevant factors are correlated to cohabitation status and pay satisfaction. While women in relationships show on average a higher relative pay satisfaction when controlled for their income, the regression analysis with control variables do not show a significant effect of cohabitation status on pay satisfaction. Gender norms did significantly effect this relationship, meaning women in a cohabiting relationship are more influenced by gender norms, compared to single women. To conclude, only one of the two main hypotheses could be fully confirmed. Further research is needed to explain how gender norms influence pay satisfaction and why women in a relationship show relatively higher pay satisfaction compared to single women.

*Key words:* Pay satisfaction, Women, Gender norms, Cohabitation, Marriage

## Introduction

One of the important issues regarding gender inequality on the workplace is the remaining global gender pay gap (Boll & Lagemann, 2018), meaning women on average get a lower wage for the same work and for their work in general. Although women are aware and care about this gender pay gap (Hamidullah, Riccucci & Lee, 2020), they do not show significantly greater dissatisfaction with their own wages (Williams, McDaniel & Nguyen, 2006). This phenomenon has been termed “the paradox of the contented female worker” (Crosby, 1982). Women report to be slightly more satisfied with their wages when controlled for their actual wage, compared to men (Williams et al., 2006).

One potential less researched factor that might influence pay satisfaction for women is cohabitation status, for example being single or in a cohabiting relationship, married, unmarried, or in a registered partnership (Gorman, 2000). While it has been established that married and cohabiting men often report a higher wage and relatively lower pay satisfaction compared to single men (Pollmann-Schult, 2011; Barg & Beblo, 2009), this relation between cohabitation status and pay satisfaction is under-researched for women. For this reason, it is scientifically relevant to study whether cohabitation status influences pay satisfaction for women.

Having a partner can influence how women approach their career, finances and other aspects of life due to intra-family comparison between dual-earning heterosexual couples (Dieckhoff et al., 2020; Breen & Cooke, 2005). Women in a cohabiting relationship can compare their wages to that of their male partner. Due to the existing gender pay-gap, women often make less money and contribute a smaller share to the household income compared to their male counterparts (Stier & Mandel, 2009; Dotti Sani, 2015). If the partner pay gap is large, women are more likely to decrease their working-time or leave paid employment

altogether. (Dieckhoff et al., 2016). Women living together with high-earners may face pressure to reduce working hours or choose jobs allowing flexibility, and thereby “take a backseat to the needs of the household and the spouse’s career” (Killewald & Gough, 2013, p. 479). This means women can become dependent on their male partner (Dotti Sani, 2015, Bianchi, Casper & Peltola, 1999). These women might tolerate a lower income, as their spouse contributes enough to the household income. The combined income of the family might be enough, and there may be no personal need for women to demand a higher wage. Women dependent on their male partner’s income however do risk poverty in instances of relationship dissolution (Gadalla, 2008), making the paradox of the contented female worker a risk for gender equality. Hence, this phenomenon is socially relevant to study. Single women do not have the same opportunity as married or cohabiting women to fall back on their partner and might therefore place importance on a higher wage, meaning they might be less satisfied with their wages compared to women in a dual-earner relationship.

This research tries to fill a research gap in the knowledge about what influences pay satisfaction for Dutch women. Cohabiting women include both married and unmarried women, since cohabitation without marriage or with a partnership registration is common in the Netherlands (CBS, 2021). Besides testing the relations between cohabitation status and pay satisfaction, gender norms are considered as a moderator. Expecting a lower pay can be one of the gendered expectations encompassed by internalized gender norms women might believe to be true for them (Grunow, Begall & Buchler, 2018). Therefore, gender norms might influence pay satisfaction. Studying the effects of gender norms regarding these issues is socially relevant for promoting gender equality.

Accordingly, the aim of the current research is to test the relationship between cohabitation status and pay satisfaction for women in the Netherlands. This leads to the

following research questions. First, “Is there a difference in pay satisfaction between women with different cohabitation statuses in the Netherlands?” and second, if so “Do gender norms strengthen the relation between pay satisfaction and cohabitation status for women in the Netherlands?”. The socio-ecological model (McLeroy et al., 1988) will be used as a theoretical framework to conceptualize the relationship between interdisciplinary factors that impact pay satisfaction in the current research, and to show its relevance within the broader social contexts.

## **Existing Research**

### ***Gender Differences on the Labor Market***

Before commencing on discussing pay satisfaction for women, it is important to first acknowledge different interrelated factors showing gender inequalities on the labor market. This includes differences in income, occupation, and working time, all in the negative for women (Blau, Brummund & Liu, 2013). In Europe, the average pay gap is a 14% lower wage for women, in the Netherlands specifically the pay gap is 14.6% total, and the unexplained pay gap is 6.6% (Boll & Lagemann, 2018). This means women on average still earn 6.6% less, even when all control variables and possible explanations, such as differences in working times and experience, are considered.

Different factors contribute to the gender pay gap. First, occupational gender segregation, referring to men and women’s tendencies to work in different occupations (Blau et al., 2013). Women are over-represented in stereotypical female occupations such as healthcare, household employment, and personal services. Occupational gender segregation has been declining over the recent decades, but this decline has slowed down again, meaning that inequalities remain (Blau et al., 2013). This contributes to the gender differences in wage

as these female occupations are associated with lower wages (Dinovitzer, Reichman & Sterling, 2009). This occupational gender segregation can further increase the inequalities in part-time work because the stereotypical female occupations women tend to work at more often, are those occupations that are more part-time. While the pay-gap is becoming smaller in full-time jobs, the pay penalty for women working part-time has increased (Gregory & Connolly, 2008). Moreover, other factors include women being expected to work fewer hours due to gender roles (Brief, Van Sell, & Aldag, 1979), such as having to prioritize family over career and ideas about which careers are fit for women.

Gender-role attitudes and gender ideologies encompass many theories and ideas about expectations, beliefs and privileges and can be understood as multidimensional constructs varying from more traditional to egalitarian and in between (Grunow et al., 2018). Egalitarian gender ideologies reflect a belief in joint responsibility and capability of men and women for earning and care-taking roles (Davis & Greenstein, 2009). More anti-egalitarian, traditional, norms are associated with lower female employment rates (Fortin, 2005). It is noteworthy that during the COVID-19 pandemic, changes in gender-role attitude expressions were seen in men becoming unemployed showing more egalitarian gender-role attitudes and women who became unemployed showing more traditional gender-role beliefs (Reichelt, Makovi & Sargsyan, 2020). Altogether, the gender pay gap is still a pressing issue. Intriguingly, despite the circumstances women face on the labor market, they seem to be not as dissatisfied with their relatively lower wages as one might expect (Williams et al., 2006).

### ***Paradox of the Contented Female Worker***

While on average women show around the same pay satisfaction levels as men, they score higher on pay satisfaction when controlling for wage (Williams et al., 2006). This phenomenon has been termed “the paradox of the contented female worker” (Crosby, 1982).

It might be difficult to show how much this paradox still exists in Europe today, since differences in pay satisfaction are becoming smaller. Only by taking their actual wage level into account, this paradox is apparent (Williams et al., 2006). This means women are often relatively satisfied with their wage, while they do make less due to the gender pay gap.

### ***Pay Satisfaction***

Pay satisfaction can be defined as a multidimensional concept including satisfaction with pay level, pay raises and benefits (Heneman & Schwab, 1985). How people rate their pay satisfaction depends on the discrepancy between the perceptions on what they expect their pay should be and the actual pay (Williams et al., 2006). Compared to men, women set lower pay expectations (Lee & Farh, 1999), making it easier to meet those expectations and to accept a lower wage while being satisfied with this. While many factors can influence pay expectations and pay satisfaction, it is beyond the scope of this research to review all. The main predictor for pay satisfaction, this research's focus, is cohabitation status. Furthermore, gender norms are identified as a moderator that might strengthen the effects of cohabitation status on pay satisfaction.

### ***Cohabitation Status***

To explain the differences in women's pay satisfaction, a potential contributing factor is cohabitation status. In the Netherlands, couples commonly live together unmarried or get a registered partnership instead (CBS, 2021), making it relevant to look at cohabitation status specifically for this Dutch sample. Cohabitation status is important for pay satisfaction and expectations, because living together with a partner has implications for one's financial situation for several reasons. First of all, being in a steady cohabiting relationship means both partners can combine their income into one family income, while single people have to

provide for themselves. For instance, most married couples share their expenses, pay bills collaboratively and have a joint bank account (Burgoyne et al., 2007). Secondly, being in a dual-earner relationships means women can depend on their spouse (Dotti Sani, 2015, Bianchi et al., 1999). Women in dual-earner couples contribute around 28 to 39 percent to the household income (Stier & Mandel, 2009), meaning their male counterparts often make more money. A large partner pay gap results in women living with a male partner being more likely to decrease their working-time or to leave employment altogether (Dieckhoff, 2016). For these two first two reasons, partner income is also considered as a control variable in this research. Thirdly, cohabiting women might compromise and take up more domestic tasks (Dieckhoff, 2020). Therefore, high spousal earning can make women retreat into traditional gender roles and facilitate specialization in housework, taking a step back in their career (Dieckhoff, 2020; Killewald & Gough, 2013). This again implicates women can get dependent on their partners income, and are exposed to risking poverty in instances of relationship dissolution (Gadalla, 2008).

While it has been established that married men, as well as cohabiting men to a slightly lower extend, often report a higher wage and relatively lower pay satisfaction compared to single men (Pollmann-Schult, 2011; Barg & Beblo, 2009), this relation between cohabitation status and pay satisfaction is under-researched for women. This research's aim is to look into this under-researched topic of the influence cohabitation status has on pay satisfaction for single or cohabiting women, which might aid in explaining the remainders of the paradox of the contented female worker.

### ***Motherhood***

Research on pay satisfaction shows having children in the household has an effect on pay satisfaction for both men and women, but mainly for the main breadwinner, who is



typically the male counterpart, presumably due to associated financial demands to support the family (Loscocco & Spitze, 1991; Pollmann-Schult, 2011). Women responsible for financially supporting the family, value their pay just as strongly as men (Loscocco & Spitze, 1991). Meanwhile if they are not the main breadwinner they might have lower pay expectations and value other job factors more, such as being able to work at their preferred position (Loscocco & Spitze, 1991). Many studies show while fatherhood increases male incomes, motherhood leads to pay penalties, especially for women with a low income to begin with (Glauber, 2018). However, mothers are not less satisfied with earning lower wages compared to fathers (Gorman, 2000). Moreover, women who return to work after childbirth are more likely to accept employment arrangements providing flexibility to reconcile work-home responsibilities despite lower wages, and see this as fair (Yerkes et al., 2017). With these arrangements, mothers might accept a lower wage in return. Meanwhile, single women and mothers can not depend on a partner's higher wage, and might consequently set higher pay expectations and demands, making them less satisfied. However, without enough research, no such claims can be made with certainty. Because of the effects on pay-satisfaction, children are included as a control variable in this research.

### ***Gender Norms***

As previously mentioned, gender norms or gender-role attitudes and gender ideologies encompass many ideas about gendered expectations, beliefs and privileges (Grunow et al., 2018), and influence gender differences on the labor market (Brief et al., 1979). Besides explaining the existence of gender differences on the labor market, gender norms might also aid us into understanding why women are still relatively more satisfied with their wages, even though they are at a relative disadvantage. Gender norms vary from traditional to egalitarian. Expected is women with more traditional gender norms are more

satisfied with their wages for different reasons. Firstly, women often set lower pay expectations (Lee & Farh, 1999), which can be one of the gendered expectations encompassed by internalized gender norms women might believe to be true for them (Grunow et al. 2018). Traditional gender norms women might internalize can also include women being better at taking care of the home and children, women not being suited to work as much as men, and men having to contribute a greater part of the family income (Grunow et al. 2018). Setting lower pay expectations because of these internalized gender norms means it is easier to meet those expectations and to accept a lower wage while being satisfied with this. Secondly, especially when women are in a relationship with men, they often experience a partner pay gap due to the overall disadvantaged position of women in the labor market (Blau et al., 2013, Boll & Lagemann, 2018). High spousal earning make women retreat into traditional gender roles, such as being the main caretaker, and facilitate specialization in housework (Dieckhoff, 2020; Killewald & Gough, 2013). Taken together, gender norms might enhance the effect of ‘cohabitation status’ of women on pay satisfaction.

### **Theoretical Framework**

While various factors influencing pay satisfaction are identified by existing research, the socio-ecological model (McLeroy et al., 1988) lends itself as a theoretical framework to incorporate and explain how different factors together might influence pay satisfaction for women. McLeroy et al. (1988) initially developed this model with a focus on illustrating how health as an outcome is shaped by contextual influences on different levels such as the personal, interpersonal, organizational, community and public policy level. This model assumes the higher and lower levels of influence can all influence each other as well.

Including predictors on these different levels of influence within this framework gives an interdisciplinary view on the topic of pay satisfaction not yet established by existing

research. This interdisciplinary view is important because these issues do not exist within a vacuum, but must be seen within their unique context consisting of many levels of influence. While the model of McLeroy (1988) originally focused on predicting health outcomes, the model can be used to explain many other outcome measures within the social sciences. For this research, the model is used to illustrate how different factors influence pay satisfaction. An explanation of each level will be provided, followed by how predictors for pay satisfaction identified by existing research fit into this model. A visualization of this model is presented in Figure 1. While it is important to realize pay satisfaction is influenced by many factors on all different levels, this research is based on existing data from the LISS panel. Therefore, it will only be able to test a few of these factors and levels. Regardless, it is important to illustrate the complexity of this issue and its place in the grander scene of scientific insights and social relevance.

### ***Pay Satisfaction within the Socio-ecological Framework***

**Individual level.** The individual level in the socio-ecological framework includes personal characteristics such as age, gender and education. The prime focus of the current research, the main predictor on the individual level for women's pay satisfaction, is cohabitation status. Age will also be included as a control variable, as older people show lower levels of pay satisfaction (Williams et al., 2006). Education is another individual factor in this research. Higher educated people expect a higher wage and are less satisfied with lower wages (Williams et al., 2006). For this research, the only gender included is women. The personal characteristics described at this level, influence how factors on other levels of influence impact an individual. For example, because of their gender, women and men might be influenced in different ways by gender norms, which is a factor described on the community level (Grunow et al., 2018).

**Interpersonal level.** The interpersonal level in the socio-ecological framework includes influences from direct surroundings. On this level, individuals can be influenced by their family, peers and relationships. For this research, the relationship is most relevant. For women in a cohabiting relationship, this level is a relevant influence due to intra-household comparison when having a partner (Dieckhoff et al., 2020; Breen & Cooke, 2005). According to bargaining theory (Breen & Cooke, 2005), partners compare their wages and bargain over the responsibilities in paid and unpaid work, often resulting in the men taking up most paid work. This is not an option for single women, as they have to provide for themselves and carry all responsibilities alone.

Living together with a partner determines someone's cohabitation status, which is in turn a personal characteristic, illustrating furthermore how different levels of the social-ecological model interact and influence each other. Moreover, the partner's income is another important factor on this level, dependent on how much an individual's partner makes. Children are also part of family, which will be included as a control variable for this research, because children impact finances and having children is related to a lower pay satisfaction (Loscocco & Spitze, 1991; Pollmann-Schult, 2011).

**Organizational level.** In the socio-ecological model, the organizational level include factors related to the workplace. The organizational level might interact with other levels of influence. For example the relations with people from the organization also being part of the interpersonal level, showing how different levels in this model might overlap. Factors that might influence pay satisfaction on the organizational level include organizational policy and different job characteristics such as pay, working times and conditions. The main job characteristics influencing pay satisfaction are the pay level, pay raises and benefits

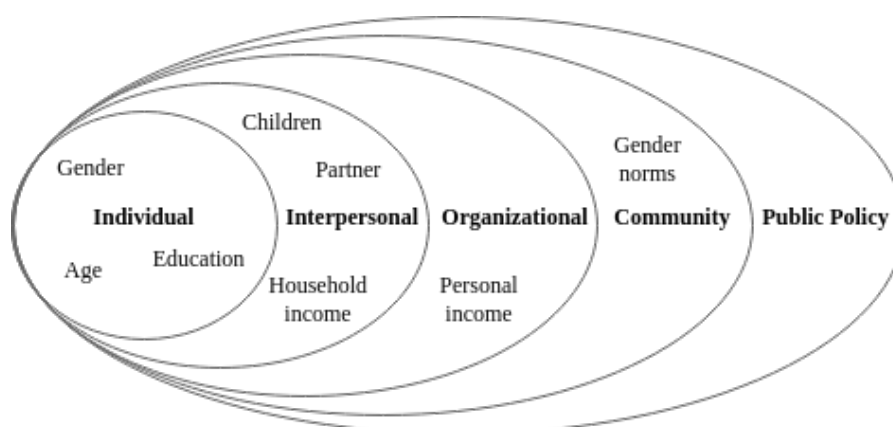
(Heneman & Schwab, 1985). Pay level, the personal reported income, is most relevant for this research as it determines relative pay satisfaction.

**Community level.** The community level factors include societal values and ideologies surrounding gender norms. Gender values and ideologies in a community can range from traditional to egalitarian, or in between (Grunow et al., 2018), and might influence ideas about labor market participation for women. People in turn can internalize these community level factors, such as gender norms, influencing pay satisfaction. Therefore, gender norms serve as the community level factor influencing pay satisfaction for women in this research.

**Public policy.** Within the socio-ecological model, public policy refers to any policy development, policy advocacy, and policy analysis aimed at improving well-being and health outcomes in society (McLeroy et al., 1988). Public policy has an important link to community and inter-personal environment. Public policy factors potentially influencing pay satisfaction for women includes the political influence and policy surrounding gender equality (den Dulk & Yerkes, 2020). With the existing data-set it is not feasible to test these effects since there is no policy comparison possible and no variables are included on this level.

### Figure 1

*Socio-ecological model with relevant factor on each level*



## **Current Research**

Given the shortage of existing research on this topic, and based on the literature review and theoretical model, the following research questions arise: Q1 “Is there a difference in pay satisfaction between women with different cohabitation statuses in the Netherlands?” and if so Q2 “Do gender norms strengthen the relation between pay satisfaction and cohabitation status for women in the Netherlands?”. The main focus of this research is a comparison of the cohabitation status of women, whether they are single or in a cohabiting relationship, and how this influences pay satisfaction. Besides testing if this relation is true for our sample of Dutch women, there are other factors that may influence this relation. As seen in the socio-ecological model, these influences exist on many levels. Five covariates on different levels of influence are included in this study, consisting of measures for age, education, children, personal income, and partner income. Furthermore, the main focus in this research is on gender norms as a moderator, with the prediction that more traditional gender roles will strengthen the relationship between cohabitation status and pay satisfaction. Including more variables is out of the scope of the current research.

## **Hypotheses**

The two following hypotheses are related to the two main research questions:

H1. Cohabitation status has a positive effect on pay satisfaction for women in the Netherlands. Single women will show relatively lower pay satisfaction compared to women in a cohabiting relationship with a male partner.

H2. Gender norms enhance the effects of cohabitation status on pay satisfaction. Women with more traditional gender norms show relatively higher pay satisfaction, especially women in a cohabiting relationship.

The five following hypotheses are related to the covariates:

H3. Age has a negative effect on pay satisfaction. Being older predicts lower pay satisfaction.

H4. Income has a positive effect on pay satisfaction. A higher personal income predicts higher pay satisfaction.

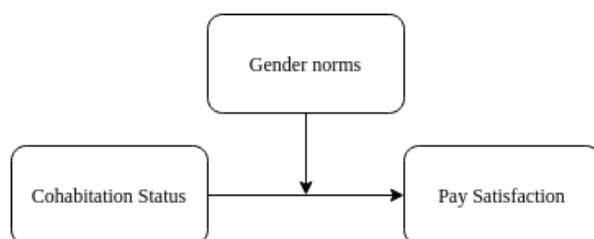
H5. Education has a negative effect on pay satisfaction. A higher education level predicts lower pay satisfaction.

H6. Children in the household have a negative effect on pay satisfaction. More children living in the household predict lower pay satisfaction.

H7. Partner income has a positive effect on pay satisfaction. Having a partner with a higher income predicts higher pay satisfaction, because women take their lower wages for granted.

## Figure 2

*Relationship between different variables in the hypotheses*



## **Methods**

### **Data Collection**

This study uses a quantitative survey collected online through the Longitudinal Internet Studies for the Social Sciences (LISS) panel administered by CentERdata (Tilburg University, The Netherlands). For this research, the 12<sup>th</sup> wave collected online between January 2020 and August 2020 is used. Three different data-sets are merged together by matching the respondent number, which include the data-sets for the surveys on Background variables, Politics and values, and Work and Schooling. The data-set politics and values is used to measure gender norms, the data-set work and schooling is used to measure pay satisfaction. The quantitative LISS survey data are made available for students for research purposes only, and are not open to the public or usable for commercial means. Before being able to use the LISS data-set, a statement had to be signed by the student and a request has to be accepted by the institution responsible for the data.

### **Participants and Sampling**

The complete LISS panel consists of around 5000 households. The number of respondents participating in at least part of the 12<sup>th</sup> wave used for this research are 10944 total, divided by 5370 male and 5574 female respondents. From this panel, 79.5% of the respondents have a Dutch background, 10.5% a non-western migration background and 10% a western migration background. For this research, only respondents with the gender 'female' and over the age of 18 are included. Furthermore, the adult women still living at their parents' house are also excluded from this research, because they can still depend on their parents' income. This leaves the final data to 4148 female adult respondents, of which 1214 reported their pay satisfaction and could be included in all analyses. Respondents in this data-set are



only identifiable by their respondent number and no personal identifiable information is included. Participants are compensated for 15 euros an hour. The recruitment is done ensuring a good representation of the Dutch population. Participants are recruited through a simple random selection process in collaboration with the CBS, Statistics Netherlands.

## **Measures**

### ***Outcome Variable***

The main outcome variable is pay satisfaction. Pay satisfaction can be defined as a multidimensional concept including pay level, pay raises and benefits (Heneman & Schwab, 1985). In this survey, pay satisfaction is measured using the question “How satisfied are you with your wages or salary or profit earnings?” on a ten-point Likert scale with 0 “not at all satisfied” and 10 “fully satisfied”. A higher score thus indicates a greater pay satisfaction.

### ***Main Predictor***

The main predictor for pay satisfaction is cohabitation status. For cohabitation status, a new dichotomous variable is created with 0 = “Single”, and 1 = “(Un)married cohabitation”. This measure is re-coded from a more complex ‘domestic situation’ measure originally in the LISS data set. The original variable included response options; 1 “Single”, 2 “(Un)married co-habitation, without child(ren)”, 3 “(Un)married co-habitation, with child(ren)”, 4 “Single, with child(ren)”, 5 “Other”. The new variable is simplified to capture only the cohabitation status of woman regardless of other domestic characteristics such as children, which are added as a separate control variable.

### **Moderator**

A variable measuring gender norms is included as a moderator. Gender norms are measured with a combination of 5 different statements including: 1. “A working mother’s relationship with her children can be just as close and warm as that of a non-working mother.”, 2. “Both father and mother should contribute to the family income.”, 3. “A child that is not yet attending school is likely to suffer the consequences if his or her mother has a job.”, 4. “The father should earn money, while the mother takes care of the household and the family.”, and 5. “Overall, family life suffers the consequences if the mother has a full-time job”. The response options are: 1 = “fully disagree”, 2 = “disagree”, 3 = “neither agree nor disagree”, 4 = “agree”, 5 = “fully agree”. To calculate an overall gender norms score, the last three statements will be re-coded so a low score reflects traditional gender norm views and a high score egalitarian views. To create a new variable to measure gender norms, the average score of the five questions is calculated. A factor analysis has been carried out without rotation and all five measured loaded on the same variable. Cronbach’s Alpha regarding reliability is .738, with a total N of 1118. More details on the factor analysis are shown in Table 1.

**Table 1**

*Factor analysis loading on the gender norms scale*

	<i>Loading</i>	<i>M</i>	<i>SD</i>
1. Close relations children	.722	4.33	.92
2. Equal contribution	.424	3.69	.96
3. Job mother	.818	3.97	.99
4. Work-care distribution	.697	4.40	.74
5. Family life suffers	.808	3.77	1.16

## ***Covariates***

Five different covariates might influence the relationship between cohabitation status and pay satisfaction, and are therefore included in the analyses.

**Age.** Age is measured using an open ended question asking their age in years. Only people of the age 18 and older are included, as this research only focuses on adults. As people get older, they often expect a higher wage due to more working experience, meaning older women might show relatively lower pay satisfaction (Williams et al., 2006).

**Personal income.** Income is measured with a continuous variable of net income in euros as reported with an open ended question by the respondents.

**Partner income.** Partner income is measured with a continuous variable of net household income in euros as reported with an open ended question by the respondents, minus personal income.

**Education.** Education is measured using the highest level of finished education with six response options. This is divided by; 1 primary school, 2 vmbo (intermediate secondary education), 3 havo/vwo (higher secondary education/preparatory university education), 4 mbo (intermediate vocational education), 5 hbo (higher vocational education), 6 wo (university).

**Children.** How many children people have, is measured with a continues variable with: “Number of living-at-home children in the household, children of the household head or his/her partner”. This includes biological children, stepchildren, adoptive children and foster children.

## **Data Analyses**

The data analyses test the hypotheses mentioned in relation to the research questions, to answer the main question and show the relation between cohabitation status and pay satisfaction for women. Data is of quantitative nature and analyses are done using SPSS Statistics 26. Descriptive statistics and correlations of all relevant variables will be presented to give a brief overview of the sample and to determine the relevance of different variables in relation to each other. The main regression analyses are made up of three steps, building the model in a way to fit both research questions and all hypotheses. The relations of the five identified covariates for pay satisfaction are measured together in the first regression model. This foundation can be used to build on and test H4 to H7. Secondly, the main predictor cohabitation status is added to the regression model to show how this changes the relationship between the different predictors and to test the first main research question. Thirdly, to test the moderation effect of gender norms on the possible relation between cohabitation status and pay satisfaction, the interaction effect of gender norms and cohabitation status is added to the regression model. This is done by creating two separate dummies for single and cohabiting women, and creating two related interaction effects for both variables. To show differences between single and cohabiting women in how all predictors affect pay satisfaction, the first regression model is repeated, split by cohabitation status with the gender norms variable included. Overall, this method is a detailed way of showcasing all changes to the relationship between the relevant factors in this research.

## Results

### Descriptive Statistics

**Table 2**

*Descriptive statistics*

	Single			Cohabiting			Total		
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Pay satisfaction	6.72	1.64	342	6.70	1.81	846	6.72	1.76	1213
Gender norms	4.12	0.61	320	4.00	.69	778	4.03	0.67	1118
Age	46.03	13.48	342	46.68	11.80	846	46.41	12.45	1213
Personal income	1996.60	807.30	326	1669.38	882.86	798	1771.75	887.70	1147
Partner income	147.68	559.80	322	2723.46	1427.92	756	1964.80	1717.34	1094
Education	4.37	1.31	342	4.29	1.26	844	4.30	1.29	1211
Children	0.42	0.79	342	1.15	1.18	846	0.92	1.13	1213

In Table 2, descriptive statistics of this data set are presented, split by cohabitation status, 0 = single and 1 = cohabiting. N total is higher because the cohabitation status for a few cases was unknown. 28.2 % of women are single, 69.7 % are in a cohabiting relationship and for 2.1 % this is unknown. For this data-set, education level is distributed as: 1 primary school = 1.8%, 2 vmbo (intermediate secondary education) = 11.8%, 3 havo/vwo (higher secondary education/preparatory university education) = 8.8%, 4 mbo (intermediate vocational education) = 27.6%, 5 hbo (higher vocational education) = 32.1%, 6 wo (university) = 17.9%. The median for net personal income is 2000 for singles, 1700 for cohabiting women and 1750 in total. The median net partner income is 0 for singles, 2495 for cohabiting women and 2000 in total.

## Correlations

**Table 3**

*Correlation table*

Measure	1.	2.	3.	4.	5.	6.	7.
1. Pay satisfaction	–						
2. Cohabitation status	-.005	–					
3. Gender norms	.128**	-.082**	–				
4. Age	-.002	.021	-.023	–			
5. Personal income	.220**	-.172**	.299**	-.054	–		
6. Partner income	.022	.691**	-.074*	.078*	-.032	–	
7. Education	.021	-.030	.214**	-.320**	.404**	.018	–
8. Children	-.073*	.295**	-.104**	-.012	-.119**	.396**	.021

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

Information on the correlations between relevant variables can be found in Table 3. Many variables are significantly correlated. A higher income is, as expected, related to higher pay satisfaction. There is a negative correlation between cohabitation and income, for cohabitation and pay satisfaction there is no such relationship. This means that single women have a higher personal income, but around the same levels of pay satisfaction as women in a cohabiting relationship. Age and education level are not significantly correlated to cohabitation status. The variable children is correlated with almost all variables from this data-set except for age and education. Having more children correlates with a lower pay satisfaction, higher changes of cohabitation, more traditional gender norms, a lower personal income and a higher partner income. To ensure multicollinearity is no issue with this many factors correlating, collinearity diagnostics are requested in SPSS as additional statistics when putting all variables together in one linear regression. No values exceeded the 4 VIF value, with partner income being the highest VIF scoring 2.143.

### Predictors for Pay Satisfaction

Regression analyses are carried out in three stages. The first model with only the covariates showed are seen in detail in Table 4. Secondly, to test the first main research question and hypothesis, the main predictor cohabitation status is added to the model. More details on this second regression model including cohabitation status are seen in Table 5.

**Table 4**

*Regression model with only covariates*

	<i>F</i>	<i>B</i>	<i>B SE</i>	$\beta$	<i>p</i>
Model	14.825	6.286	.317		.000
Age	.083	-.001	.004	-.009	.774
Personal net income	62.923	.000	.000	.259	.000**
Partner net income	3.262	.000	.000	.058	.071
Education level	5.194	.046	.046	-.078	.023*
Children	4.054	.051	.051	-.065	.044*

*Note.* \*  $p < .05$ , \*\*  $p < .01$

**Table 5**

*Regression model with main predictor added*

	<i>F</i>	<i>B</i>	<i>B SE</i>	$\beta$	<i>p</i>
Model	11.620	6.188	.340		.000
Age	.075	-.001	.005	-.009	.784
Personal net income	59.782	.001	.000	.259	.000**
Partner net income	.679	.000	.000	.036	.410
Education level	4.118	-.097	-.070	-.070	.043*
Children	3.584	-.097	.051	-.062	.059
Cohabitation status	.504	.113	.159	.030	.478

*Note.* \*  $p < .05$ , \*\*  $p < .01$

The total model with only covariates is significant,  $R^2 = .064$ . The second model with adding the predictor cohabitation status is also significant,  $R^2 = .061$ . The first research question and hypothesis can not be confirmed. While single women show relatively lower pay satisfaction compared to women in a cohabiting relationship with a male partner as expected by the first hypothesis, this effect is not significant in the regression model.

Hypothesis 4 and hypothesis 5 are confirmed. Age correlates negatively to pay satisfaction as predicted by hypothesis 3, but is not a significant predictor in the regression model. Hypothesis 4 is confirmed since income is a significant positive predictor for pay satisfaction. Having a higher personal income predicts higher pay satisfaction. Hypothesis 5 is also confirmed since the education level has a negative effect on pay satisfaction in this model. Furthermore, children in the household are negatively correlated to pay satisfaction, but again like the age predictor, this is not a significant predictor in the regression models, rejecting hypothesis 6. Lastly, partner income did not show any relation to pay satisfaction, therefore rejecting hypothesis 7.

### **Moderation Effect of Gender Norms**

To test the second research question and related hypotheses, gender norms are tested as a moderator to the relation between cohabitation status and pay satisfaction. Details on the analysis with the interaction effect are found in Table 6. In Table 7 the effects of all five covariates and gender norms split by cohabitation status are shown.

**Table 6**

*Regression model with interaction effect of gender norms added*

	<i>F</i>	<i>B</i>	<i>B SE</i>	$\beta$	<i>p</i>
Model	9.440	5.552	.718		.000
Age	.499	-.003	.005	-.023	.480
Personal net income	43.231	.000	.000	.235	.000**
Partner net income	1.130	.001	.000	.048	.288
Education level	5.509	-.116	.049	-.085	.019*
Children	4.681	-.114	.053	-.075	.031*
Cohabitation status	.006	.062	.774	.016	.937
<i>Cohabitation status x</i>					
<i>Gender norms</i>					
Single x Gender norms	2.214	.236	.158	.263	.137
Cohabiting x Gender norms	6.442	.246	.097	.275	.011*

*Note.* \*  $p < .05$ , \*\*  $p < .01$



**Table 7**

*Regression model as first model, with gender norms added, divided by cohabitation status*

	Single				Cohabiting			
	<i>F</i>	<i>B</i>	$\beta$	<i>p</i>	<i>F</i>	<i>B</i>	$\beta$	<i>p</i>
Age	.384	-.005	-.038	.536	.074	-.002	-.011	.786
Personal net income	13.837	.000	.225	.000**	31.280	.000	.244	.000**
Partner net income	.480	.000	-.046	.489	1.502	.000	.048	.221
Education level	.276	-.044	-.034	.600	6.637	-.158	-.113	.010*
Children	1.726	-.184	-.086	.190	2.028	-.084	-.055	.155
Gender norms	1.935	.214	-.081	.165	6.532	.258	.101	.011*

*Note. N singles = 303 , N Cohabiting = 696 , \*  $p < .05$  \*\*  $p < .01$*

Results from the third model show there is a significant interaction between gender norms and cohabitation status for cohabiting women. Therefore the second research question and hypothesis can be confirmed. Besides gender norms, education status is also a significant predictor of pay satisfaction for cohabiting women only. Cohabiting women with a higher pay satisfaction might have more progressive gender norms and a higher education.

## Discussion

### Main Findings

The focus of the current research was determining if there is a relation between the cohabitation status of women and their pay satisfaction. Single women on average show a higher personal income compared to cohabiting women, while they both show similar levels of pay satisfaction, which means single women might show relatively lower pay satisfaction. However, this effect is found to be non-significant in this sample. Therefore, the first hypothesis, stating cohabitation status influences pay satisfaction for women in the Netherlands, can not be confirmed. The second hypothesis can be confirmed, since there is a significant interaction effect of gender norms and cohabitation status on pay satisfaction for

cohabiting women. Cohabiting women show a higher pay satisfaction when having more egalitarian gender norms. Another confirmed hypothesis is women showing higher pay satisfaction when having a higher income. In the regression model, income is the strongest predictor for pay satisfaction, and can be used to look at the relative pay satisfaction. However, even when taking the relative pay satisfaction into account, the main hypothesis could not be confirmed. Education is also a significant predictor for pay satisfaction, specifically for cohabiting women. Having children is in this research only a significant predictor for pay satisfaction in the first model without cohabitation status, and in the third regression model including the interaction effects.

### **Results in Context of Existing Research and Theoretical Framework**

The results from this research support some of the factors defined in the social-ecological model, used as the theoretical framework to study pay satisfaction in women from an interdisciplinary perspective. A factor on the individual level found to be a significant predictor for pay satisfaction is education level. Furthermore, having more children predicts lower pay satisfaction for women, and is correlated to a lower personal income and a higher partner income, which is also shown by existing research on the motherhood wage penalty and fatherhood wage premium (Glauber, 2018). Income is an important predictor for pay satisfaction on the organizational level, which confirms existing research (Williams et al., 2006). One individual and one intra-personal factor from the model that do not show a correlation to pay satisfaction are age and partner income respectively. As a factor on the community level, gender norms do moderate the relationship between cohabitation status and pay satisfaction. It is important to note that values such as gender norms are complex. On a community level this can be particularly interesting for comparing different communities and societies. The existing data-set however only focuses on the Netherlands so no international

comparison is possible. Therefore, gender norms are only tested on an individual level for this research. In the data-set, egalitarian and conservative norms are found within women of all levels of income and pay satisfaction. Cohabiting women seem to be more influenced by gender norms for their pay satisfaction, compared to single women. This means cohabiting women with egalitarian gender norms show higher pay satisfaction, which is not in the direction expected from the hypothesis.

### **Strengths and Limitations**

Strengths of this research include the large sample size of the data-set and the random selection procedures. Therefore, the results from this study are a good representation of the Dutch female population. Another strength of this research is the wide variety of variables, of which some were relevant for this research. Furthermore, a reliability analysis is carried out to confirm the variable created for gender norms by combining different variables accurately captures the right construct, meaning the internal validity is high. The ecological validity of this study is also high, since the instruments used to measure different variables are questions directly measuring real life circumstances and are relevant for Dutch women in a real-world context.

While this research is a good representation of the Dutch population, it is important to be careful about making generalizations. Regarding external validity, the research can not be generalized to all women worldwide. Another limitation in the research design, is the limited factors that could be included in the main research question and design of the current study. This study only looks at a few of the many factors illustrated in the theoretical model and identified by previous research. The focus was specifically on the cohabitation status because existing research on this topic was limited. The number of participants with valid values on all variables is possibly not enough to show significant results. While the variables

gender norms, age, personal income and household income were available for 3057 or more respondents, this number is lower for pay satisfaction due to the nature of the data collection divided in different stages and questionnaires. This resulted in the respondents being used in this research being only about a tenth of the total panel. Not all respondents in the LISS panel fill out each questionnaire because the surveys can take long to answer.

Lastly, this study assumes the cohabiting woman in this sample are in a heterosexual relationship. While being a relatively small population, it would have been more inclusive and relevant to also differentiate women in a relationship with a woman in this research. This might be relevant because compared to straight women, lesbians have an higher average wage while not showing higher job satisfaction (Smyth et al., 2018), meaning the ‘paradox of the contented female worker’ might not apply for them. To test if results are different for this group of women, the gender of a women’s partner has to be known. For the current research, the LISS panel survey on family and household did include a variable on this, but by combining a fourth data-set with the others, there where almost no valid values left.

### **Implications and Recommendations for Future Research**

The main scientific reason for focusing on cohabitation status as a predictor for pay satisfaction, was a lack of research on this topic. While the paradox of contented female is starting to disappear over the recent years (Williams et al., 2006), it is still scientifically relevant to investigate factors influencing pay satisfaction for women. Future research is needed to test whether results are similar in different samples and what other factors, such as education level and children, might better explain pay satisfaction for women. Other contexts such as countries with bigger pay gaps, different political, and societal structures might show a different relationship between cohabitation status and pay satisfaction, and a different influence of gender norms. Furthermore, for Dutch women, unmarried cohabitation is as

common as marriage. Therefore, the focus on this research is specifically cohabitation instead of civil status. For other countries however, this might be different.

The results of this research might have social implications for the continued aim towards gender equality and occupational equality. Women in a cohabiting relationship are almost as satisfied with their wages, while they earn less compared to single women. A variance in gender norms can explain this phenomenon to an extent. It would be interesting to explain further why cohabiting women are still more satisfied with their pay. For future research, qualitative measures such as interviews can be used to give more insights into why cohabiting women take a lesser pay for granted, how they are influenced by gender norms, and direction for quantitative measures to use in similar research.

Practical implications for this research include implications for public policy and political decision making surrounding gender equality at the workplace. Political decisions and laws influence the position of women and families. Family leave arrangements in the Netherlands are limited, largely unpaid and only recently being somewhat extended for both parents (den Dulk & Yerkes, 2020). Policy surrounding childcare might also influence how well both parents are able to combine work and care while having a family. In the Netherlands children generally attend childcare part-time, which might increase to more full-time attendance as there are improvements seen in Dutch childcare with recent policy innovations (den Dulk & Yerkes, 2020). This promotion of gender equality in wages and in dividing work and care responsibility might aid women in setting higher pay expectations, resulting in lower pay satisfaction to levels, equal to men.

## **Conclusion**

To conclude, the differences seen in relative pay-satisfaction between single and cohabiting women in this sample from the Netherlands is not significant. While single women and

women in a cohabiting relationship both show equal levels of pay satisfaction, single women have a higher average individual income, meaning single women might be relatively less satisfied with their income. Gender norms moderate this relationship between cohabitation status and pay satisfaction. For cohabiting women, pay-satisfaction is influenced by gender norms, while this is not the case for single women. Other relevant predictors for pay satisfaction include income, education and children. Future research is needed to further explain the effects of gender norms on pay satisfaction and why cohabiting women show relatively higher pay satisfaction.

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