Do workers sacrifice job stability for self-fulfilment through passion and autonomy?

What the European Work Conditions Survey can tell us about passionate workers within precarious jobs and the protective power of their trade unions.

Bachelor thesis

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Abstract

As less and less people within Europe are working with full-time non-fixed contracts, more people are finding themselves in poorer, precarious jobs. These jobs offer little financial or employment security. To research how people end up with these precarious jobs, I developed a model integrating intrinsic values as drivers to accept precarious jobs and trade unions as organisations reducing the precariousness of jobs offered by employers. People would sacrifice job stability to achieve passion and or autonomy. Trade unions would prevent people from doing so, by protecting intrinsically motivated workers from the labour market. I analysed the chance for someone to experience job insecurity among active workers aged 16 or older across Europe. By using the 2021 wave of the European Working Conditions Survey held across 36 countries, I performed a binary logistic regression on a sample of 20655 workers. I conclude that the more passionate or more autonomous workers are, the less likely they expect to lose their job within six months. Also, workers covered by a trade union more often believe they will not lose their job than those workers without trade unions. As passion and autonomy do not lead to precarious work, trade unions do not protect workers from their intrinsic work values. Furthermore, the model could not sufficiently label job insecure workers as such, meaning the variables used are possibly not good predictors of job insecurity. The question of which predictors would be sufficient remains. These results direct future research on the experience of job insecurity towards the true availability of choice workers have access to. I also recommend further research into the development of precarious work within the lives of workers and its effect on well-being.

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Introduction

As labour markets are changing to be more flexible, the worry about precarity, financial insecurity, is increasing. This worry is not unsubstantiated, as precarity often comes along with poorer well-being (Rönnblad et al., 2019). The European Union and the International Labour Organisation are among the large institutions issuing research on this topic (Arpaia et al., 2016; International Labour Organisation, n.d.). The worker is also changing. In the past, the standard for workers was full-time employment with non-fixed contracts. Imagine the typical nine to five desk jobs or long term trade careers within a company. Nowadays, standard employment among workers is decreasing in the EU, resulting in the increase of precarity and the risk thereof (Arpaia et al., 2016). More and more people are working part-time, self-employed or with short fixed contracts (Broughton et al., 2016).

Work has many implications on life, hence research on precarity encompasses many levels: the vulnerability of the worker, the working conditions and even the potential emergence of a new working class (Campbell & Price, 2016). In general, precarity implies a lack of control over the working life resulting in some form of insecurity (Hewison, 2015). My research will focus on precarity as something which arises from employment. Precarious working conditions cause workers to bear the risk of uncertainty, insecurity and instability associated with economic production. In short, precarious working conditions include job instability, poor and/or unstable income and unpredictable work hours.

For workers to be in precarious working conditions, they need to (to some degree) accept jobs with poorer terms of employment. What drives workers to do so? My

research will analyse one driver specifically: intrinsic work values. In contrast to extrinsic work values, which is the desire of material beneficial work aspects such as income, intrinsic work values are the desire of the non-material benefits of work, such as passion and autonomy. In this paper, passion for work refers to the experience of doing something which aligns with your intrinsic goals. Autonomy is understood as the ability to set your own goals within work.

To research how workers end up in precarious working conditions, I will analyse the data from the 2021 wave of the European Working Conditions Survey. I will introduce my model of accepting precarious working conditions, which guides my hypotheses. On the one hand, workers accept work with poor job stability for their intrinsic goals. On the other hand, workers' choice in jobs are limited by the job opportunities of the labour market. Some institutions, like trade unions, ideally reduce the amount of precarious jobs offered by employers through collective agreements. But, it remains unclear whether trade unions truly do function according to this ideal. While there are initiatives to reduce precarious employment, there are also doubts whether trade unions properly represent those workers in precarious employment (Keune, 2013; Birnbaum & De Wispelaere, 2020). Accordingly, my central research question will also focus on trade unions and whether they truly protect passionate and autonomous workers from ending up in precarious working conditions like job instability.

Does higher intrinsic value of work lead to more precarious working conditions, and does the presence of trade unions moderate this relationship?

Theory

To answer the research question posed above, I will use the following research model presented in figure 1.

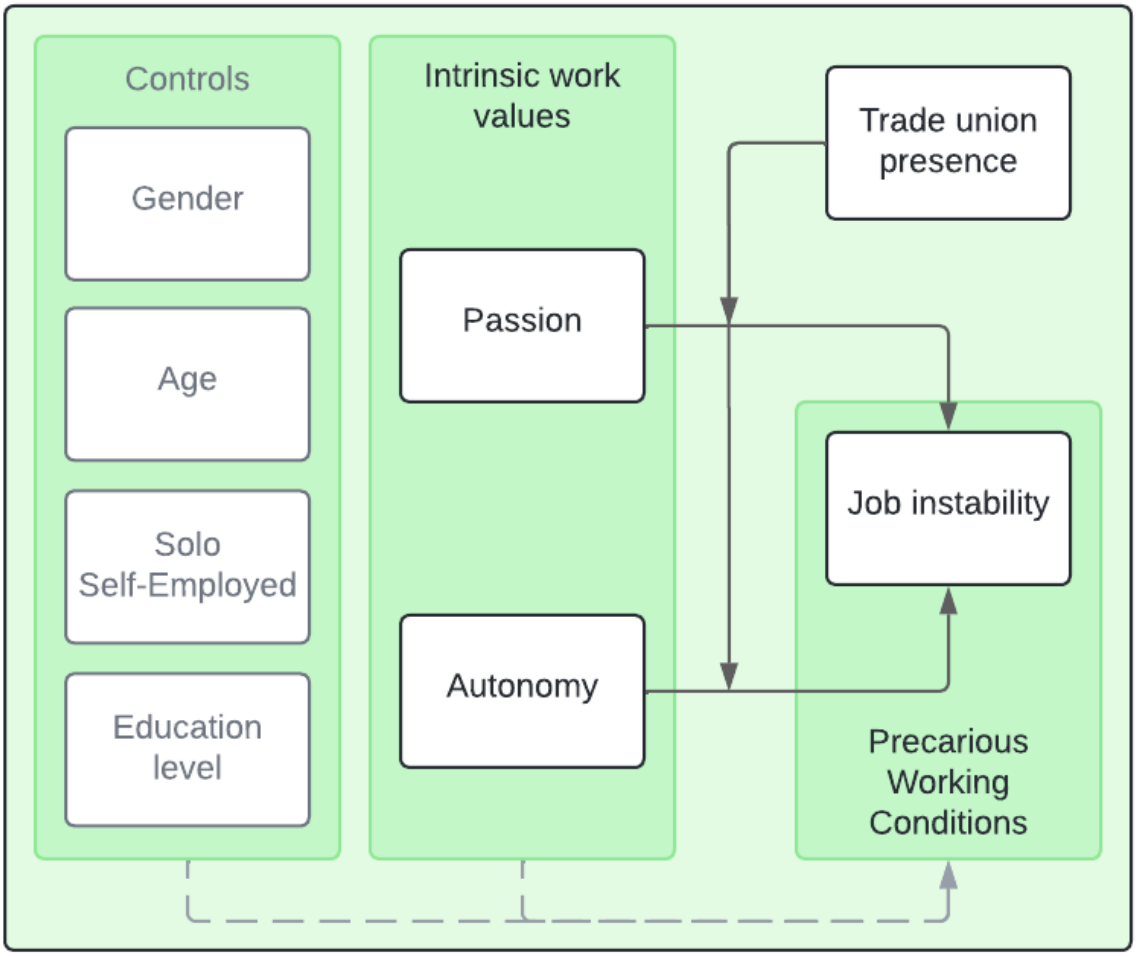

Figure 1: Research model

This model is based on workers to some degree accepting their job with its conditions of employment. In the following paragraphs I will explain how passion and autonomy may be a contributing factor in accepting precarious working conditions; and how trade union presence reduces the job options with precarious working conditions for workers.

Precarious Working Conditions

Precarity is a broad concept. In general it signifies uncertainty, instability and insecurity within the life of a worker (Hewison, 2015). As Campbell and Price (2016) showed, it is necessary to be specific in the use of precarity. In my research, the focus will be on precarious *working conditions*. In sum, precarious working conditions imply lack of control in the working life, which manifests itself as the following types of work insecurities: insecure employment, poor and/or unpredictable income and unpredictable work hours. Most importantly, the worker has to bear the consequences of uncertainty, instability and insecurity associated with economic production (Hewison, 2015). Whether the worker can bear those conditions successfully depends on the worker and their context. For example people with high savings or a financial supportive network are less likely to become financially insecure when losing income. Furthermore, even if people cannot make ends meet, they may live in a country with accessible and sufficient social welfare. In conclusion, precarity applies specifically to vulnerable workers, those who do not have these resources and thus are greatly impacted by insecure employment and unstable income (Shin et al., 2023).

In research on precarious employment, many concepts are used either as directly representing precarious employment or as an indirect proxy. For example, flexible and casual work imply some level of job instability, so they are used as a proxy to measure precarious employment. Income is also often used as a measure (Olsthoorn, 2013). If the received income is insufficient to support a decent life, then it should be viewed as precarious (Shin et al., 2023). When evaluating the precarity of work, the following questions should be posed. Are workers at risk of losing their job; and do they

experience income insecurity? To limit the scope of ‘precarious working conditions’ in my research, I will focus solely on analysing job instability.

Intrinsic work value: passion

Work values can be understood as employment characteristics which are generally viewed as desirable and which motivates people to work. They encompass both aspects of the work life as work-related outcomes like income and experience. These work values are often conceptually split into intrinsic and extrinsic values within research. Extrinsic work values are related to economic material outcomes, while intrinsic work values are related to personal non-material benefits (Rainsford et al., 2019). For example, workers with high extrinsic work values prefer high income, employment security and consistent working hours. In contrast to or accompanying that, preferring opportunities of autonomy, skill-development or self-fulfilment are examples of intrinsic work values (Gesthuizen et al., 2019). Within my research, I focus on both passion and autonomy as a proxy for intrinsic work values.

Workers become passionate if they have access to opportunities that are important to them intrinsically, making them motivated and engaged with their work in the moment. Passion is an experience, unlike a similar concept job satisfaction, which is an individual’s evaluation of their work (Grund et al., 2019). Within my model, workers find themselves within precarious working conditions because they accepted their job. So, why do they? First, passion invites self-precarisation. This is made clear with an extreme example: the creative industry, infamous for its poor job opportunities and

conditions (Been & Keune, 2020). Research focusing on precarity within the creative industries have developed narratives explaining why creative workers end up as the well-known ‘struggling artist’. Within this narrative, creative workers put emphasis on intrinsic work values, like enjoying work, authenticity and autonomy even if it comes at the cost of security caused by the precarity within their field (Been & Keune, 2020; Marčeta et al., 2023). This narrative shapes their employment options. Working in a different field with better working conditions becomes unthinkable, because they cannot give up on their dreams.

Furthermore, in research on callings, it has been found that workers who view their work as their calling are more likely to work more hours regardless of income. They are also more likely to be exploited, poor or workaholics (Cinque et al, 2020). I hypothesise that passionate workers are more willing to accept precarious working conditions for the sake of achieving self-fulfilment, meaning and significance in their lives through work.

Second, passion may prevent workers from quitting precarious work. Not only are passionate workers more likely to accept precarious work, they may put more effort into their work. Dysvik and Kuvaas (2012) have shown that higher intrinsically motivated people are more likely to put more effort into their work. Such findings can be related to DePalma’s Passion Paradigm (2021), which gathers individual narratives on work and passion into a general ideology among professionals. Not only should passion guide career choice, workers should also be passionate about their work because it makes them better at their work. In this narrative, passion decreases the impact of workload and allows workers to *persevere* despite the hardships of work. Passion then becomes a crutch to endure hardships. This may be a reason why workers keep jobs despite

precarious working conditions. In conclusion, the self-precarisation and perseverance caused by passion lead to my first hypothesis:

H1: More passionate workers find themselves in work with precarious conditions more often than less passionate workers.

Intrinsic work value: autonomy

Like passion, autonomy is an intrinsic work value (Gesthuizen et al., 2019). Autonomy implies having control over your own decisions. For this research, I will focus on autonomy over work globally; the ability to set your own goals of work. Being able to set goals may allow workers to create more precarious working conditions, even though creating better working conditions would seem more rational. Yet, it would still be rational if self-precarisation makes fulfilling intrinsic goals possible. Autonomy may enable self-precarisation by giving workers the room to demand more from themselves without equal recompense. Specifically within the already precarious creative industries, autonomy is seen as valuable, as it gives workers room to be creative (Been & Keune, 2020; Marčeta et al., 2023). But, creative workers trade in stability and high pay for this opportunity to achieve their intrinsic goal of creativity. Autonomy here has become an intrinsic work value worthy of losing financial security.

This extreme example of the creative industries may be generalised to other sectors. For some workers, autonomy over their work makes them more engaged with their work (Van den Broeck et al. 2011). Autonomous workers tend to be more intrinsically

motivated, work more and perform better than non-autonomous workers (Sung et al., 2022). In the same research, Sung et al. (2022) showed that more autonomous workers are more likely to find psychological meaningfulness and work engagement. This may lead to the same mechanism of passion, where calling leads to self-precarisation. Especially work engagement, understood as the willingness to self-invest into work, could lead to more self-precarisation, because workers may be more willing to sacrifice themselves financially for the cause as long as they are free to do so. In general, autonomy could allow workers to set goals within their jobs in such ways that they give themselves reason to trade in some financial security for self-fulfilment.

Moreover, autonomy may allow workers to earn more within their precarious job. Then, this intrinsic work value becomes an instrument to serve the extrinsic work value of securing income. In fact, some self-employed workers enjoy autonomy because they can work longer than would be legally permitted under an employer, allowing them to earn more (Majetić et al., 2022). Autonomy could give workers the resources to work more and secure more income, while they paradoxically enable self-precarisation. In other words, autonomy could allow workers to escape the worst precarious conditions, to still end up in lower levels of precarious work. Here, autonomy serves as a crutch to endure precarious working conditions. In addition, autonomy may reduce job stress (Martin, 2017). This also allows autonomy to be a crutch, similar to passion. In conclusion, my second hypothesis is as follows.

H2: More autonomous workers are more likely to find themselves in precarious working conditions than less autonomous workers.

Trade Union Presence

To accept precarious work implies its availability. An important factor of its availability is the labour market, which shapes the employment options for workers. For an extreme example, Been and Keune (2020) make clear how the characteristics of the creative labour market shapes precarity for creative workers through project-based work and portfolio norms. These findings could also be relatable to white collar workers, as building a portfolio of experience and skill set becomes increasingly more important for employability to them, too. The general work culture increasingly becomes a so-called culture of insecure work where workers are expected to keep investing in themselves (Neely, 2020). Furthermore, part-time contracts are becoming more frequent (Broughton et al., 2016). The main risks for part-time workers are job security and low income, risks which full-time workers suffer less from (Broughton et al., 2016). Here too, work is generally leaning towards insecurity.

Several institutions can mitigate such insecurity. Firstly, national labour policy shapes labour relations, because countries can define what employment conditions are considered legal. For example, part-time work in the Netherlands is less precarious because of the Dutch labour policy changes to protect temporary workers by reducing the maximum length of fixed-term contracts (Broughton et al., 2016). Secondly, trade unions also shape labour relations. They allow for collective action and collective

bargaining of workers, so they can make their demands of the work life be apparent to employers. Through this form of representation, workers can put pressure on employers to offer better employment conditions and benefits. These demands can even be formally institutionalised as collective (bargaining) agreements. Then, employers are forced to offer employment conditions which are up to the standard of the collective agreement.

In short, trade unions protect their workers from employers offering poor employment conditions. However, do trade unions also represent vulnerable workers, or do they only benefit insiders? It is true that trade unions are challenged in representing workers without full-time permanent employment (Birnbaum & De Wispelaere, 2020). Yet, there have been initiatives from trade unions in several European countries to reduce precarious employment. These trade unions have tried to influence legislation, campaigned to change public opinion, offered (legal) services to precarious workers and mobilised precarious workers (Keune, 2013). This could allow precarious workers to voice themselves and be effectively heard.

If successful, trade unions reduce the availability of precarious jobs within the labour market, despite the culture of insecure work demanding workers to invest themselves. In contrast, de-unionisation leads to precarisation, as employers gain more power to limit pay and increase flexibilisation (Kalleberg & Vallas, 2017). In conclusion, trade unions reduce the availability of jobs with precarious working conditions, preventing passionate workers from accepting precarious working conditions. In this case, workers who do value extrinsic rewards more than intrinsic work values would be less willing to

accept precarious working conditions, so trade unions would not prevent them from doing so. This leads to my third hypothesis of trade union presence being a moderator:

H3: The presence of trade unions will make passionate or autonomous workers less likely to experience precarious working conditions, while this effect will be weaker for workers who are not passionate nor autonomous.

Controls

I will control for three other possible causes of precarious working conditions in my research: gender, age and education level. These factors may influence which workers are autonomous and which workers find themselves in precarious working conditions. First, gender will be a control to prevent gender specific differences in labour market participation from blurring the coming analysis. Women are more likely to work part-time, which is often associated with job insecurity and low pay (Broughton et al., 2016). Especially in countries without sufficient care services women are less likely to work full-time (Arpaia et al., 2023). Next, women are overrepresented in sectors which tend to offer precarious (part-time, low paid) jobs (Shin et al., 2019).

Second, age may influence the access workers have to jobs. Older workers have had more time to gain experience, build a social network and gain longer tenure within organisations; older workers have better resources to gain higher positions and tend to be insiders (Shin et al., 2019). Moreover, teenage and young adult workers are preoccupied with education and are more likely to only work jobs on the side (Broughton

et al., 2016). Consequently, older workers may have better employment conditions than younger workers, because they need to and have the right resources.

Finally, education level is a control, because it shapes which jobs are accessible to workers. Unskilled labour often is on part-time basis with low pay, while professionals tend to receive permanent contracts with higher income (Broughton et al., 2016). Because literature shows that lower education level correlates with higher precarity, I need to take education into account to prevent spurious relations from entering my model.

Methodology

To research the hypotheses, I will analyse the 2021 wave of the European Working Conditions Survey. The design of that survey and of my secondary analysis will be explained below.

Materials and procedure: European Working Conditions Survey

The European Working Conditions Survey (EWCS) is set up by Eurofound, with the goal to measure quality of jobs, working lives and of labour markets. The target population of the EWCS contains all individuals aged 16 and above who did at least one hour of work for any payment in the last week. The last wave, EWCTS 2021, was carried out in all EU member states and (potential) EU candidates: Albania, Bosnia, Herzegovina, Kosovo, North Macedonia, Montenegro, Serbia, and Norway, Switzerland, and the United Kingdom, totalling 36 countries (Ipsos NV, 2022).

The 2021 wave was the successor of the 2020 wave, which was interrupted by the COVID-19 pandemic. Preliminary research was done to adapt the EWCS to the CATI-method. The original questionnaire was shortened and modularised so interviews per telephone would last around twenty minutes. Each respondent received a core-module, a variant of the three M1 modules and a variant of the two M2 modules. The core-questionnaire was about socio-demographic, work-establishment and work aspects. M1 focused on job quality, while M2 focused on either the collective experience or the individual experience of the working life. The variants of M1 and M2 were randomly

assigned to respondents. This resulted in six different questionnaires, each focusing on working conditions (Ipsos NV, 2022).

The survey consisted of 54 language versions. After translation and harmonisation of translated questionnaires, a pilot took place in December 2020. Fieldwork took place with trained interviewers from March to November 2021. The aim was 70,017 completed interviews in total across all countries. Of the 2,102,518 sampled phone numbers, 1,460,498 were contacted successfully. This resulted in a non-response of 642,020. In the end 1000 to 4200 interviews were completed per country, totalling 71,764 interviews. 1,390 interviews were deleted because they were of poor quality (Ipsos NV, 2022).

I will not use the entire achieved sample, because I will use module-specific variables in my research. Only those respondents who received the M1a-M2a or M1b-M2a questionnaires are used in my research, which results in a final test sample of 20665.

Operationalisations

I have recoded variables from the EWCTS-dataset to make them fit for my research. For more information about my code and my justification, look at Appendix I.

Precarious Working Conditions

Precarious working conditions are reflected by experienced job insecurity. The duration or type of contract were not used, because these variables do not directly imply job insecurity. A short contract does not mean that the employer will not extend the

contract, for example. Instead, I used a variable which measures the evaluation of workers on their job instability. Respondents were asked whether they estimate they will lose their main job within the next six months, using a 5-point scale. Answers outside this scale have been marked as missing. Finally, I have divided the respondents into two groups: those who do not in any way expect to lose their job within six months and those who are either unsure or sure they will lose their job within six months. This resulted in the following division.

‘’I might lose my job in the next 6 months. To what extent do you agree or disagree with the following statements about your job?’’

Refusal	MISSING	
Don’t Know	MISSING	
Not Applicable	MISSING	
Strongly disagree	1	group 0
Tend to disagree	2	group 0
Neither agree nor disagree	3	group 1
Tend to agree	4	group 1
Strongly agree	5	group 1

Passion

I used a specific engagement measure to reflect passion: experienced enthusiasm. This variable functions as a proxy because it is not a direct measure of passion. Rather, it measures the result of being passionate about work. Respondents were asked the following question to measure their enthusiasm using a 5-point scale. ‘’I am enthusiastic about my job. [...] please tell me how often you feel this way]’’ Answers outside the 5-point scale have been marked as missing.

Refusal	MISSING
Don’t Know	MISSING
Never	1
Rarely	2
Sometimes	3
Often	4
Always	5

Autonomy

I created a 3-item scale to assess respondents’ global autonomy over their work. Respondents could rate their influence on a 5-point scale. Answers outside the scale have been marked as missing. The sum of the item-scores was calculated only if the respondent answered all three questions within the original scale. This means the minimum of the scale is set at 3 and the maximum at 15. The higher the score, the more autonomous the respondent is. The new Autonomy Scale seems reliable (α=0,714). The following three items were used, because each question measures global autonomy over work rather than autonomy over work tasks.

Select the response which best describes your work situation

1) You are consulted before objectives are set for your work
2) You are involved in improving the work organisation or work processes of your department or organisation
3) You can influence decisions that are important for your work

Refusal	MISSING
Don’t Know	MISSING
Not applicable	MISSING
Never	1
Rarely	2
Sometimes	3
Often	4
Always	5

Trade Union Presence

The concept of Trade union presence was represented by the following question. ‘’Does the following exist at your company or organisation: trade union, works council or a similar committee representing employees?’’ This question is conceptually broader than trade union presence, but no other variables were available. I have marked refusals or don’t-knows as missing. Respondents could also answer yes (0) or no (1). I have made the variable into a dummy such that those without trade unions will form the reference group within my analysis (0=no; 1=yes).

Gender

Respondents were asked ‘’Would you describe yourself as [Male, Female, Or would you describe yourself in another way]?’’ Because there were few respondents answering neither male nor female, I will use a computed variable which randomly distributed those respondents across the males and females. What remains is a dummy with (0=men) and (1=women).

Age

Respondents were asked their age and could only respond using years. Refusals to answer this question are marked as missing.

Education level

This variable was based on the question ‘What is the highest level of education or training that you have successfully completed?’’ Eurofound recoded answers according to the ISCED-classification system and computed a variable which unifies the differing education levels across countries into three groups: primary, secondary and tertiary education.

I have separated this variable into two dummies each representing an education level: secondary and tertiary education. The secondary dummy was coded such that 0=’not maximally achieved secondary education’ and 1=’maximally achieved secondary education’. The tertiary dummy works the same: 0=’not tertiary’ and 1=’tertiary education’. Primary education will be reflected by a score of 0 on both dummies, which means that it is the reference group.

Research design

Hypothesis 1 and 2:

To test my hypotheses on autonomy and passion causing precarious working conditions, I used both bivariate and multivariate tests. I started by looking at the correlation of all variables with passion, autonomy and precarious working conditions. Then, I used binary logistic regression to analyse the partial effects of passion and autonomy on job instability, also controlling for gender, age and education level. I built my model in four steps. First, I added all control variables in model 1, then I added passion and autonomy to make model 2.

Hypothesis 3:

Before analysing the hypothesis, I tested for differences of all variables between the two groups of trade union presence: those with and those without trade union representation.

Next, to test the hypothesised moderator-effect of trade union presence, I added another step to the binary logistic regression. Trade union presence was added to model 3 to find its total effect. Then, the interaction effects of trade unions with passion and autonomy were added to make model 4. These effects are portrayed by two interaction terms: trade union presence times passion and trade union presence times autonomy. Changes to the direct effects of passion will be reported, as well as significance tests on group differences, variables and model quality.

Model quality

Model quality was analysed by checking the assumptions behind binary logistic regression analysis. This consisted of testing for multicollinearity and systematic missing cases. Furthermore, outliers were singled out and their impact on the regression statistics was analysed by rerunning the final model without outliers. This model has also been rerun with a different definition of job insecurity to avoid an arbitrary dichotomisation of the variable.

Results

Descriptives

Table 1 contains the univariate statistics of each variable used. These statistics were run on a subset of all respondents, those who have answered all the questions of each variable, because the regression analysis is only based on these respondents.

Most of my variables used are heavily skewed. For example, many respondents do not expect to lose their job within six months (77,1%). Those workers who do expect to lose their job within that period are less present. Thus, I have less data on those I am most interested in; the workers in precarious working conditions.

Most workers also report some amount of passion reflected by enthusiasm (72,6%). Workers who have experienced less passion at work are less present within the dataset, with a relatively small proportion of workers reporting little to no enthusiasm (8,0%). The same goes for autonomy; most workers do experience higher levels of autonomy rather than no or low autonomy as visible in figure 2. There are also few workers who have maximally achieved primary education (0,9%). In short, most workers in the dataset are passionate, are at least somewhat autonomous, have achieved secondary or tertiary education, are middle-aged and do not expect to lose their job within half a year. These workers are roughly equally divided into groups of male or female and having or not having a trade union present at their work.

Table 1: descriptive statistics among the data used for binary logistic regression. N=20665.

Variable	Mean (*SD*)	Minimum	Quartile 1	Median	Quartile 3	Maximum
Lose_job		0	0	0	0	1
Job secure=0	77,1%					
Job insecure=1	22,9%					
Passion	3,95	1	3	4	5	5
	(0,97)					
Autonomy	10,93	3	9	11	13	15
	(2,99)					
Trade union		0	1	1	1	1
Not present =0	41,4%					
Present =1	58,6%					
Gender		0	0	0	1	1
Male =0	50,9%					
Female =1	49,1%					
Age	41,82	16	32	42	51	81
	(11,93)					
Education		1	2	3	3	3
Primary =1	0,9%					
Secondary =2	40,7%					
Tertiary =3	58,4%					

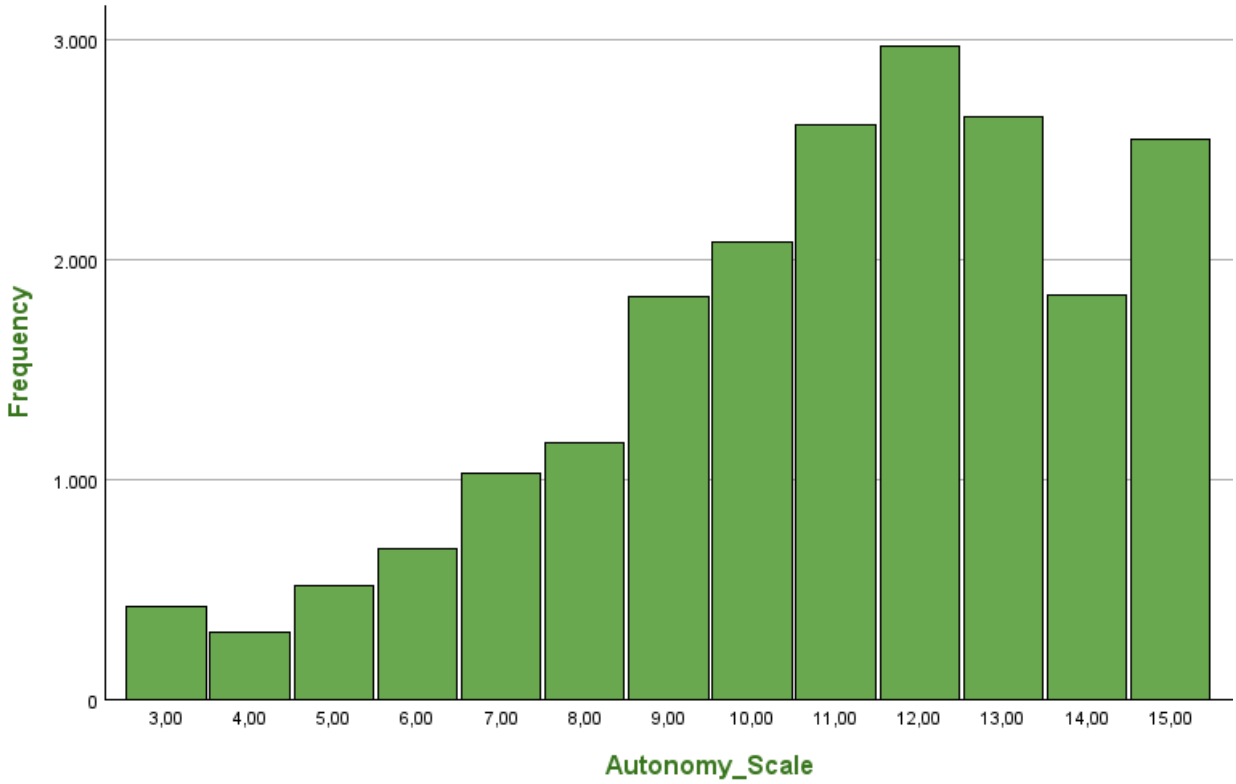

Figure 2: histogram of autonomy.

As I compare the chance to end up in precarious working conditions, I present in table 2 bivariate statistics and in figure 3 of Appendix IV the differences between two groups of workers. Among workers who expect to lose their job within six months, trade unions are less prevalent, indicating a potential protective effect trade unions have on workers. They generally experience less autonomy and less passion. They also have less frequently acquired tertiary education.

Table 2: Bivariate statistics among the data used for binary logistic regression. N=20665.

Variable	Lose job	Passion	Autonomy	Trade Union	Gender	Age	Education
Lose_job	x	0,13	-0,13	-0,12	-0,04	-0,05	0,06
Passion		x	0,33	0,06	0,03	0,08	0,15
Autonomy			x	-0,03	-0,04	0,02	0,12
Trade Union				x	0,04	0,11	0,10
Gender					x	0,04	0,12
Age						x	0,02
Education							x

These bivariate statistics in table 2 are based on the crosstabs in Appendix II. This table shows how *lose_job* is not strongly tied to any variable in my model. Lower autonomy coincides with lower job security or vice versa, as does the presence of trade unions (*r*=-0,130; *p*<0,001; *Phi*=-0,116; *p*<0,001). In contrast, *more* passion coincides with lower job security (*Phi*=0,126; *p*<0,001).

In general, there are only very weak or weak connections between all the variables, except for one pair. Passion and autonomy do appear to be connected such that workers who are more passionate are also slightly more autonomous (*R*=0,33; *F*=2440,27*; df1*=1; *df2*=20663; *p*<0,001).

Table 3: Results of stepwise binary logistic regression analysis with Lose_job as a dependent variable, Passion and Autonomy as independent variables and Trade union presence as moderating variable. N=20665. Testing for the chance to expect to lose job within six months.

	Model 1		Model 2		Model 3		Model 4	
	b(SE)	Odds-ratio	*b*(SE)	Odds-ratio	*b*(SE)	Odds-ratio	*b*(SE)	Odds-ratio
Intercept	-0,42* (0,17)	0,66	0,95** (0,19)	2,57	1,12** (0,19)	3,06	1,29** (0,20)	3,63
Gender 0=male 1=female	-0,13** (0,03)	0,86	-0,16** (0,03)	0,85	-0,15** (0,03)	0,86	-0,15** (0,03)	0,86
Age	0,01** (0,00)	0,99	-0,01** (0,00)	0,99	-0,01** (0,00)	0,96	-0,01** (0,00)	1,00
Education Ref: Primary								
Secondary	-0,23 (0,16)	0,80	-0,21 (0,16)	0,81	-0,19 (0,16)	0,82	-0,20 (0,16)	0,82
Tertiary	-0,50 (0,16)	0,61	-0,42* (0,16)	0,66	-0,35* (0,16)	0,70	-0,36* (0,16)	0,70
Passion			-0,16** (0,02)	0,86	-0,14** (0,02)	0,87	-0,16** (0,02)	0,85
Autonomy			-0,08** (0,01)	0,92	-0,09** (0,01)	0,92	-0,10** (0,01)	0,91
Trade Union Presence					-0,54** (0,03)	0,59	-0,87** (0,15)	0,42
TUx Passion							0,04 (0,04)	1,04
TUxAutonomy							0,02 (0,01)	1,02
Deviance	22078,21		21686,83		21442,00		21436,64	
Likelihood (*df*)	137,46 (4)**		391,37** (2)		244,83** (1)		5,36 (2)	
Hosmer-Lemeshow (*df*)	4,52 (8)		11,86 (8)		10,92 (8)		5,22 (8)	

*significant at $p<0,05$; **significant at $p<0,01$. TUxPassion and TUxAutonomy are interaction terms of Trade Union Presence with Passion and Autonomy respectively.

Model evaluation

This model does not seem to explain the chance for a worker to experience job insecurity. The model fit statistics generally imply that each model is better than the last, because the proportion of mistakes decreases at each step. Only adding the interaction terms to construct the final model did not lead to a significant decrease in deviations (*Likelihood-χ^2=5,36; df=2; p=0,069*). Furthermore, my model struggles to label respondents experiencing job insecurity correctly, which can be seen in table 4 in Appendix IV. The model cannot grasp workers expecting to lose their job, as only 2,4% of those workers were correctly labelled. The total increase in correct prediction from a model entirely consisting of the average job instability to the final model is a mere 0,1%. This may mean that my chosen variables are not fit for predicting job insecurity at all, even though the Hosmer-Lemeshow tests do not give indication that the model cannot predict the job insecurity outcome among the respondents (*H-L*=5,22*; df*=8*; p*=0,734). This conclusion may be due to the high proportion of workers experiencing job security within the sample, which the model can correctly label even if it cannot label job insecure workers. This results in mostly correct predictions which could not separate job secure workers from job insecure workers.

I have marked outliers and deleted them from my dataset temporarily to see whether they influenced the statistics of the model. I have found some remarkable changes. Firstly, the regression coefficient of trade union presence decreases with 0.3, marking a more protective effect. The effects of passion, autonomy and their respective interaction terms change marginally. Secondly, the cases marked as outliers show a specific pattern. Most outliers are workers experiencing job insecurity. Finally, by deleting the outliers, all workers who have maximally acquired primary education would be excluded from the analysis. Deleting outliers would thus exclude those workers who are predisposed to precarity from my analysis, meaning the outliers cannot be removed for the final analysis without losing important data points.

This model has also been reran with a different dichotomisation of job insecurity. This resulted generally in higher regression coefficients for all variables, except for passion and autonomy which remained the same. More information on the exact changes of the regression coefficients can be found in Appendix III.

Hypotheses

H1 & H2: Passion and Autonomy

My first two hypotheses claim that passion and autonomy lead to more precarious working conditions. Within this statistical model, that means higher scores on either passion or autonomy need to be accompanied by higher chances of being a worker who expects to lose their job within six months. This is not the case within this dataset. Both passion and autonomy do not have a negative effect on the respondents, because they lower the chance for them to experience job insecurity ($b_{passion}$=-0,16*; p*<0,001; $b_{autonomy}$=-0,10*; p*<0,001). Their effects are quite strong, as I have calculated in table 5 in Appendix IV showing the impact of these variables on the chance of job insecurity. According to the statistical model, workers who experience more passion and/or more autonomy, are less likely to experience the precarious working condition of job insecurity. Consequently, my first two hypotheses are refuted by this model.

H3: Trade Union Presence

My third hypothesis claimed trade unions would act as a buffer, protecting workers from the negative effects of passion and autonomy. Now that the latter part of the claim is refuted, the first part does not make sense anymore. Yet, among the respondents, trade union presence has a strong protective effect ($b_{tradeunionpressence}$=-0,87; *p*<0,001*).* This effect became strongest after adding the interaction terms to the model (*Δb=-0,34)*. But, the interaction trade union presence has on passion and autonomy does not fit the image of a protective buffer. On the contrary, the chance for the respondent to expect to

lose their job becomes slightly higher after accounting for interactions ($b_{Trade\_unionXPassion}$=0,04; p=0,283; $b_{Trade\_unionXAutonomy}$=0,02; p=0,110). This change impacts the total effect of passion, autonomy and trade unions on the chance of experienced job insecurity. This is visible in table 5 in appendix IV, which shows the total range of effect passion and autonomy have on the chance for a worker to think they will lose their job within six months. The impact trade union presence has on that chance reverses when accounting for the interaction with passion, causing higher predicted chances of job insecurity. Moreover, model 4 was not significantly better than its predecessor, so accounting for trade unions' selective impact on passionate workers adds little to predicting job insecurity (*Likelihood-*χ^2=5,36; *df*=2; *p*=0,069). In conclusion, I must refute my third hypothesis, because trade union presence does not protect workers *against* passion nor autonomy, nor does it change the effects of passion and autonomy on job insecurity.

Conclusion and discussion

This research started with the general questioning which relationship intrinsic work values have with precarious working conditions and whether trade unions influence that relationship. After specifying that question to focus on passion, autonomy and job insecurity, I had hypothesised the following relations. First, passion and autonomy would cause precarious working conditions, because they would act as a reward for sacrificing job security and aid workers in enduring job insecurity. Secondly, trade unions would counteract this relation by reducing available precarious jobs offered by employers such that those without trade unions would be more impacted by the sacrificing call of passion and autonomy. I have concluded that none of these hypotheses are supported within my dataset. So to answer my research question: higher intrinsic work values do not lead to more precarious working conditions and trade unions do not moderate this relation. On the contrary, workers who experience more passion and/or autonomy also experience less job insecurity. This is the polar opposite of what the hypotheses stated. So, what happened and what does it mean?

The results show a proportionately small group of workers experiencing job insecurity. Next to that, the model contains many outliers, which are generally less passionate, less autonomous, less educated and less likely to be covered by a trade union compared to the entire sample. Finally, the statistical model has poor predictive ability, as it cannot grasp those workers experiencing job insecurity. This could partly be a result of some limitations of this research. Crucial micro and macro level predictors or precarity are missing from the analysis, such as ethnicity, official-language skills, previously

experienced precarity, occupation, sector and country. These predictors were either not measured by the EWCS or not integrated in my model to allow easy computation. Another limitation is the data collection. The amount of job insecure workers interviewed may not represent the European population. Firstly, the amount may have been reduced by the COVID-pandemic, because these workers were more likely to have lost their job during the pandemic, which would put them outside the sample frame. Secondly, that sample frame itself is also a potential problem, as only active workers who had worked in the previous week for payment were sought out. This strict sampling could have led to the exclusion of workers with unpredictable work hours gigs. So, workers who tend to experience the worst job insecurity could have been missed by this survey.

These limitations make it difficult to interpret the results and its implications for the theory. Let's assume the research model is accurate, what could these results imply? The mechanisms of passion and autonomy may only happen conditionally. The poor predictive ability of the model could imply other unmeasured causes are more important to experienced job insecurity. So, only certain workers, who are not impacted by these unmeasured causes, are highly impacted by their own intrinsic work values. Academically educated freelancers and overworking PhD-students could be an example. These people may have more human capital than the general population, allowing them a better competitive position within the labour market, which could imply they have more choice. That is the utmost important assumption behind my model: the choice to sacrifice job stability for intrinsic work values. The found results may imply a

lack of choice among workers, especially since experienced lower autonomy coincides with experiencing job insecurity.

The found results are easier to interpret if we assume a lack of choice for people. Then, job security allows workers to experience passion, maybe because they are less likely to be bothered by financial stress. Or, job security allows workers to be autonomous, as they feel the room to act according to their own vision without repercussions. Job insecurity becomes worrisome within this context. Because job insecure workers experienced less autonomy, it could mean these workers are also less able to do anything about their precarious position. This precarious position coincides with less experienced passion within my sample and coincides with poorer well-being according to previous research (Rönnblad et al., 2019). This demands us to look deeper into precarity and well-being. How systematic are these causes of precarity if it is not by individual choice? Most importantly, are these causes just? Which people find themselves disproportionately more often within precarious working conditions and which people are disproportionately affected by such conditions? More research should be done, focussing on the development of precarity in the working life. Future research on precarity should also focus on both job secure, job insecure and unemployed people to find out who has the freedom of choosing intrinsic (work) values.

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Appendix I: Operationalisations

Precarious working conditions

Base variable: losejob

The original variable was based on a question asking respondents about their expectation to lose their job within six months. It is a 5-point ordinal scale with 3 unique missing-answer options.

''Q89C [losejob] I might lose my job in the next 6 months [To what extent do you agree or disagree with the following statements about your job?]''

Refusal (spontaneous)	-999
Don't Know (spontaneous)	-888
Not Applicable (spontaneous)	-777
Strongly agree	1
Tend to agree	2
Neither agree nor disagree	3
Tend to disagree	4
Strongly disagree	5

Statistics

Variables: losejob

N	Valid	71758
	Missing	0
Mean		-16,99
Median		5,00
Std. Deviation		133,270
Minimum		-999
Maximum		5
Percentiles	25	3,00
	50	5,00
	75	5,00

```
FREQUENCIES VARIABLES=losejob
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN MEDIAN
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

Q89C [losejob] I might lose my job in the next 6 months [To what extent do you agree or disagree with the following statements about your job?]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Refusal (spontaneous)	38	,1	,1	,1
	DK (spontaneous)	1164	1,6	1,6	1,7
	Not applicable (spontaneous)	560	,8	,8	2,5
	Strongly agree	4512	6,3	6,3	8,7
	Tend to agree	5532	7,7	7,7	16,5
	Neither agree nor disagree	6560	9,1	9,1	25,6
	Tend to disagree	14481	20,2	20,2	45,8
	Strongly disagree	38911	54,2	54,2	100,0
	Total	71758	100,0	100,0	

From the descriptive statistics it is clear the distribution is heavily skewed, with most workers not expecting to lose their job within six months (74,4%). The group of workers who do expect to some degree to lose their job within six months is smaller (14%). Linear regression will not be possible with this distribution.

Adjusted variable: Lose_job

I will reverse the scale of the original variable such that a higher score implies higher precarity because of a higher expectation to lose work within six months. Answers outside this scale have been appointed to MISSING.

Refusal	MISSING
Don't Know	MISSING
Not Applicable	MISSING
Strongly disagree	1
Tend to disagree	2
Neither agree nor disagree	3
Tend to agree	4
Strongly agree	5

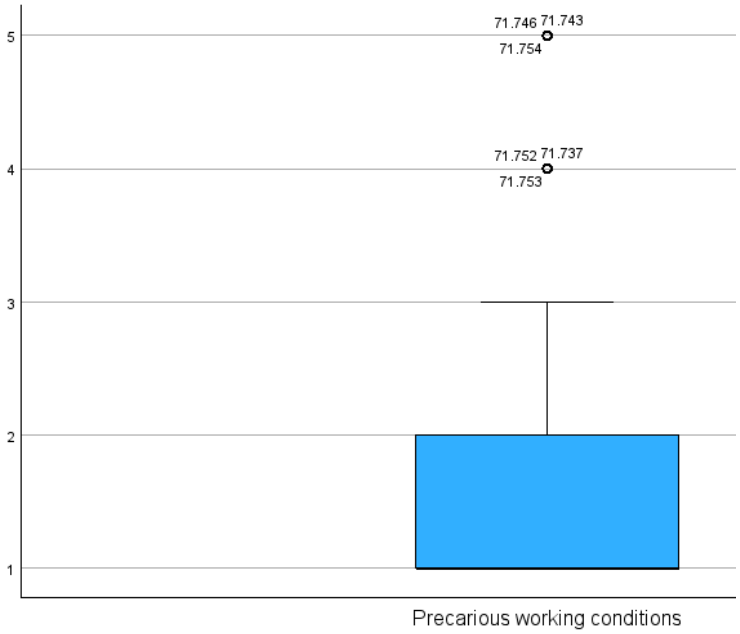
```
RECODE losejob (-999=SYSMIS) (-888=SYSMIS) (-777=SYSMIS) (1=5) (2=4) (3=3)
(4=2) (5=1) INTO Lose_job.
VARIABLE LABELS  Lose_job 'Precarious working conditions'.
EXECUTE.


FREQUENCIES VARIABLES=Lose_job
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN MEDIAN
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

Statistics

Precarious working conditions

N	Valid	69996
	Missing	1762
Mean		1,89
Median		1,00
Std. Deviation		1,238
Minimum		1
Maximum		5
Percentiles	25	1,00
	50	1,00
	75	2,00



Precarious working conditions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	38911	54,2	55,6	55,6
	Tend to disagree	14481	20,2	20,7	76,3
	Neither agree nor disagree	6560	9,1	9,4	85,7
	Tend to agree	5532	7,7	7,9	93,6
	Strongly agree	4512	6,3	6,4	100,0
	Total	69996	97,5	100,0	
Missing	System	1762	2,5		
Total		71758	100,0		

Passion

Base variable: eng_enthusiastic

Passion will be reflected by the following question and answers:

''Q90B [eng_enthusiastic] I am enthusiastic about my job [The following statements are about how you feel about your job. For each statement, please tell me how often you feel this way...]''

Refusal	-999
Don't Know	-888
Never	1
Rarely	2
Sometimes	3
Often	4
Always	5

Statistics

eng_enthusiastic

N	Valid	35857
	Missing	35901
Mean		1,97
Median		4,00
Std. Deviation		42,734
Minimum		-999
Maximum		5
Percentiles	25	3,00
	50	4,00
	75	5,00

```
FREQUENCIES VARIABLES=eng_enthusiastic
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN
MEDIAN
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

Q90B [eng_enthusiastic] I am enthusiastic about my job [The following statements are about how you feel about your job. For each statement, please tell me how often you feel this way...]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Refusal (spontaneous)	13	,0	,0	,0
	DK (spontaneous)	66	,1	,2	,2
	Never	815	1,1	2,3	2,5
	Rarely	2035	2,8	5,7	8,2
	Sometimes	6669	9,3	18,6	26,8
	Often	13965	19,5	38,9	65,7
	Always	12294	17,1	34,3	100,0
	Total	35857	50,0	100,0	
Missing	System	35901	50,0		
Total		71758	100,0		

Adjusted variable:

The original ordinal variable only needs to have MISSING-values to be appointed to the answers outside of the 5-point scale.

Refusal	MISSING
Don't Know	MISSING
Never	1
Rarely	2
Sometimes	3
Often	4
Always	5

```
RECODE eng_enthusiastic (-999=SYSMIS) (-888=SYSMIS) (ELSE=Copy) INTO Passion.
EXECUTE.
```

Statistics

Passion

N	Valid	35778
	Missing	35980
Mean		3,98
Median		4,00
Std. Deviation		,981
Minimum		1
Maximum		5
Percentiles	25	3,00
	50	4,00
	75	5,00

```
FREQUENCIES VARIABLES=Passion
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN MEDIAN
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

Passion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	815	1,1	2,3	2,3
	Rarely	2035	2,8	5,7	8,0
	Sometimes	6669	9,3	18,6	26,6
	Often	13965	19,5	39,0	65,6
	Always	12294	17,1	34,4	100,0
	Total	35778	49,9	100,0	
Missing	System	35980	50,1		
Total		71758	100,0		

There are many Missing cases in the dataset, because the question was module specific (M2a) and only randomly given to approximately 50% of the respondents. The distribution is heavily skewed towards workers being enthusiastic about their job.

Autonomy

Base variables:

Three variables are summed together to form an autonomy scale starting at 3 points going up to maximally 15 points. I have used the variables *consulted*, *improv_workorg* and *decision_influence*. Their corresponding questions and answers are as follows.

‘’Q61C [consulted] You are consulted before objectives are set for your work [...select the response which best describes your work situation]’’

‘’Q61D [improv_workorg] You are involved in improving the work organisation or work processes of your department or organisation [...select the response which best describes your work situation]’’

‘’Q61N [decision_influence] You can influence decisions that are important for your work

[Please tell me how often the following

applies to your work situation?]’’

Refusal	-999
Don’t Know	-888
Not applicable	-777
Never	1
Rarely	2
Sometimes	3
Often	4
Always	5

Statistics

		consulted	improv_workorg	decision_influence
N	Valid	41424	41424	71758
	Missing	30334	30334	0
Mean		-11,57	-3,50	-2,57
Median		4,00	4,00	4,00
Std. Deviation		111,552	77,141	73,349
Minimum		-999	-999	-999
Maximum		5	5	5
Percentiles	25	3,00	3,00	3,00
	50	4,00	4,00	4,00
	75	5,00	5,00	5,00

```
FREQUENCIES VARIABLES=consulted improv_workorg decision_influence
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN MEDIAN
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

Q61C [consulted] You are consulted before objectives are set for your work [...select the response which best describes your work situation]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Refusal (spontaneous)	32	,0	,1	,1
	DK (spontaneous)	255	,4	,6	,7
	Not applicable (spontaneous)	476	,7	1,1	1,8
	Never	4303	6,0	10,4	12,2
	Rarely	4016	5,6	9,7	21,9
	Sometimes	7034	9,8	17,0	38,9
	Often	11121	15,5	26,8	65,8
	Always	14187	19,8	34,2	100,0
	Total	41424	57,7	100,0	
Missing	System	30334	42,3		
Total		71758	100,0		

Q61D [improv_workorg] You are involved in improving the work organisation or work processes of your department or organisation [... select the response which best describes your work situation]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Refusal (spontaneous)	8	,0	,0	,0
	DK (spontaneous)	163	,2	,4	,4
	Not applicable (spontaneous)	182	,3	,4	,9
	Never	4048	5,6	9,8	10,6
	Rarely	3939	5,5	9,5	20,1
	Sometimes	8035	11,2	19,4	39,5
	Often	12298	17,1	29,7	69,2
	Always	12751	17,8	30,8	100,0
	Total	41424	57,7	100,0	
Missing	System	30334	42,3		
Total		71758	100,0		

Q61N [decision_influence] You can influence decisions that are important for your work [Please tell me how often the following applies to your work situation?]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Refusal (spontaneous)	27	,0	,0	,0
	DK (spontaneous)	313	,4	,4	,5
	Not applicable (spontaneous)	185	,3	,3	,7
	Never	4645	6,5	6,5	7,2
	Rarely	6313	8,8	8,8	16,0
	Sometimes	15379	21,4	21,4	37,4
	Often	23583	32,9	32,9	70,3
	Always	21313	29,7	29,7	100,0
	Total	71758	100,0	100,0	

Adjusted variable:

The scale is made by marking ‘refusal’, ‘don’t know’ and ‘not applicable’ as MISSING.

Next, the variables were added together only if a respondent answered all three

questions. This was done by only allowing cases which have a score of at least 1 on every item to be used for calculating the scale.

```
RECODE consulted improv_workorg decision_influence (-999=SYSMIS) (-888=SYSMIS) (-777=SYSMIS) (ELSE=Copy) INTO Consulted_rec Improve_workorg_rec Decision_Influence_rec.
VARIABLE LABELS  Consulted_rec 'Autonomy_Consulted' /Improve_workorg_rec 'Autonomy_Improve' /Decision_Influence_rec 'Autonomy_Decision_Influence'.
EXECUTE.

FREQUENCIES VARIABLES=Consulted_rec Improve_workorg_rec Decision_Influence_rec
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN MEDIAN
  /ORDER=ANALYSIS.
```

Statistics

		Autonomy_Consulted	Autonomy_Improve	Autonomy_Decision_Influence
N	Valid	40661	41071	71233
	Missing	31097	30687	525
Mean		3,6609	3,6273	3,7104
Median		4,0000	4,0000	4,0000
Std. Deviation		1,32456	1,27982	1,17160
Minimum		1,00	1,00	1,00
Maximum		5,00	5,00	5,00
Percentiles	25	3,0000	3,0000	3,0000
	50	4,0000	4,0000	4,0000
	75	5,0000	5,0000	5,0000

Autonomy_Consulted

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	4303	6,0	10,6	10,6
	2,00	4016	5,6	9,9	20,5
	3,00	7034	9,8	17,3	37,8
	4,00	11121	15,5	27,4	65,1
	5,00	14187	19,8	34,9	100,0
	Total	40661	56,7	100,0	
Missing	System	31097	43,3		
Total		71758	100,0		

Autonomy_Improve

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	4048	5,6	9,9	9,9
	2,00	3939	5,5	9,6	19,4
	3,00	8035	11,2	19,6	39,0
	4,00	12298	17,1	29,9	69,0
	5,00	12751	17,8	31,0	100,0
	Total	41071	57,2	100,0	
Missing	System	30687	42,8		
Total		71758	100,0		

Autonomy_Decision_Influence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	4645	6,5	6,5	6,5
	2,00	6313	8,8	8,9	15,4
	3,00	15379	21,4	21,6	37,0
	4,00	23583	32,9	33,1	70,1
	5,00	21313	29,7	29,9	100,0
	Total	71233	99,3	100,0	
Missing	System	525	,7		
Total		71758	100,0		

```
IF  (Decision_Influence_rec >= 1 & Improve_workorg_rec >= 1 & Consulted_rec >= 1)
Autonomy_Scale=SUM(Consulted_rec,Improve_workorg_rec,Decision_Influence_rec).
EXECUTE.

CORRELATIONS
  /VARIABLES=Decision_Influence_rec Improve_workorg_rec Consulted_rec
  /PRINT=TWOTAIL NOSIG FULL
  /MISSING=PAIRWISE.
```

Correlations

		Autonomy_Decision_Influence	Autonomy_Improve	Autonomy_Consulted
Autonomy_Decision_Influence	Pearson Correlation	1	,480**	,460**
	Sig. (2-tailed)		<,001	<,001
	N	71233	40857	40447
Autonomy_Improve	Pearson Correlation	,480**	1	,428**
	Sig. (2-tailed)	<,001		<,001
	N	40857	41071	40436
Autonomy_Consulted	Pearson Correlation	,460**	,428**	1
	Sig. (2-tailed)	<,001	<,001	
	N	40447	40436	40661

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

```
RELIABILITY
  /VARIABLES=Decision_Influence_rec Improve_workorg_rec Consulted_rec
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL MEANS VARIANCE CORR.
```

Case Processing Summary

		N	%
Cases	Valid	40258	56,1
	Excluded[a]	31500	43,9
	Total	71758	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,714	,716	3

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3,627	3,589	3,662	,073	1,020	,001	3
Item Variances	1,592	1,396	1,749	,353	1,253	,032	3
Inter-Item Correlations	,457	,429	,480	,051	1,118	,001	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Autonomy_Decision_Influence	7,2906	4,832	,556	,310	,601
Autonomy_Improve	7,2512	4,585	,530	,286	,628
Autonomy_Consulted	7,2174	4,478	,516	,269	,647

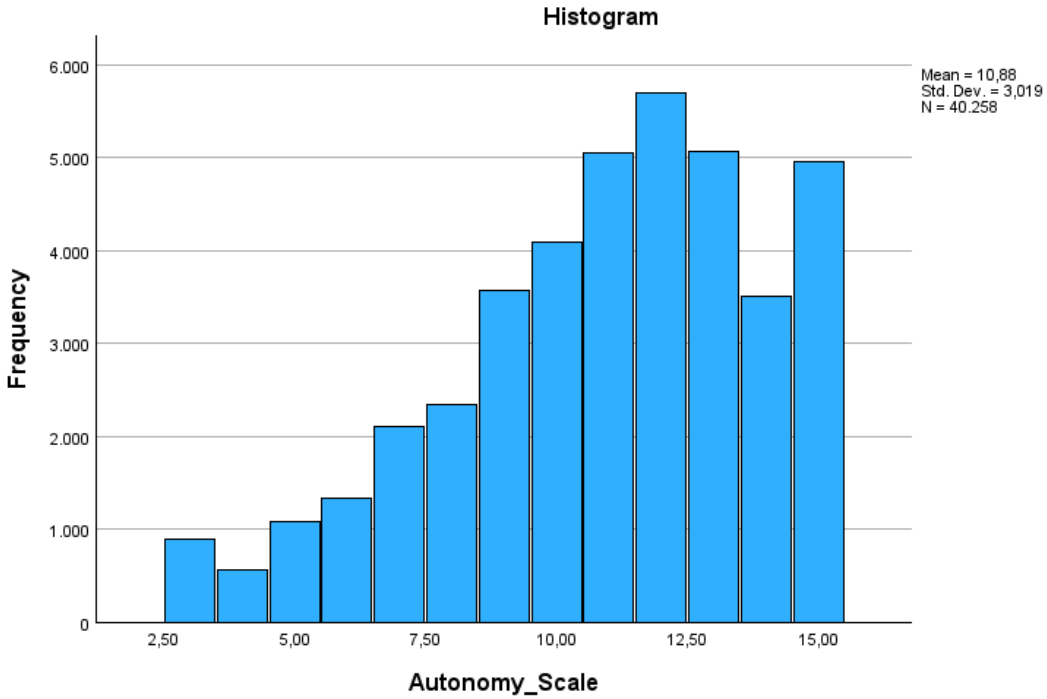
The cronbach's Alpha is fairly high for using three variables (α=0,714). This does not increase when removing an item from the scale. I also deem the correlation between an item with the scale sans said item to be appropriate. This scale will be used for the analysis. The distribution is asymmetrical, leaning heavily towards lower autonomy. Transforming this scale by using the mean autonomy of the three items resulted in the final histogram. Again, the distribution is uneven, leaning towards higher autonomy.

```
FREQUENCIES VARIABLES=Autonomy_Scale
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN
MEDIAN
  /HISTOGRAM
  /ORDER=ANALYSIS.
```

Statistics

Autonomy_Scale

N	Valid	67702
	Missing	4056
Mean		8,2145
Median		8,0000
Std. Deviation		4,03208
Minimum		3,00
Maximum		15,00
Percentiles	25	4,0000
	50	8,0000
	75	12,0000


Histogram
Mean = 10,88
Std. Dev. = 3,019
N = 40.258
Frequency
6.000
5.000
4.000
3.000
2.000
1.000
0
2,50
5,00
7,50
10,00
12,50
15,00
Autonomy_Scale

Trade union presence

Base variable: trade_union

The concept Trade union presence is represented by the following question and answers:

‘’Q71A [trade_union] Trade union, works council or a similar committee representing employees [Does the following exist at your company or organisation...?]’’

Refusal	-999
Don’t Know	-888
Yes	0
No	1

```
FREQUENCIES VARIABLES=trade_union
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN
MEDIAN
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

Statistics

trade_union

N	Valid	31241
	Missing	40517
Mean		-46,40
Median		1,00
Std. Deviation		200,831
Minimum		-999
Maximum		2
Percentiles	25	1,00
	50	1,00
	75	2,00

Q71A [trade_union] Trade union, works council or a similar committee representing employees [Does the following exist at your company or organisation...?]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Refusal (spontaneous)	23	,0	,1	,1
	DK (spontaneous)	1654	2,3	5,3	5,4
	Yes	17100	23,8	54,7	60,1
	No	12464	17,4	39,9	100,0
	Total	31241	43,5	100,0	
Missing	System	40517	56,5		
Total		71758	100,0		

Adjusted variable:

I have marked Refusals and Don't-Knows as MISSING, so only a dichotomized variable remains. I will use this variable as a dummy with the reference group being workers not represented by any trade unions. To prevent later issues with multivariate analysis, I have made the trade_union variable compatible with the solo self-employment variable. Otherwise, every solo self-employed worker would be excluded from my analysis.

```
RECODE trade_union (-999=SYSMIS) (-888=SYSMIS) (1=1) (2=0) INTO
Trade_Union_Presence.
EXECUTE.

DO IF (Solo_Self_employed_dummy = 1).
RECODE Trade_Union_Presence (MISSING=0) (0=0) (1=1).
END IF.
EXECUTE.


FREQUENCIES VARIABLES=Trade_Union_Presence
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN MEDIAN
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

Trade_Union_Presence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No trade union present	18240	25,4	51,6	51,6
	Trade union present	17100	23,8	48,4	100,0
	Total	35340	49,2	100,0	
Missing	System	36418	50,8		
Total		71758	100,0		

Again, there are many Missing cases, because the question was module-specific (m2a) and randomly assigned to only 50% of the respondents. The two groups are more equal in size now. The coding works as follows.

Refusal	MISSING
Don’t Know	MISSING
No	0
Yes	1

Gender

Base variable: gender

The following question and answers were used:

’’ Q2new [sex] Would you describe yourself as [...]?’’

Male	1
Female	2
Or would you describe yourself in another way?	3

```
FREQUENCIES VARIABLES=gender
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN MEDIAN
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

Statistics

gender

N	Valid	71758
	Missing	0
Mean		1,48
Median		1,00
Std. Deviation		,506
Minimum		1
Maximum		3
Percentiles	25	1,00
	50	1,00
	75	2,00

Q2new [sex] Would you describe yourself as (transformed into gender_recoded for analysis)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	37445	52,2	52,2	52,2
	Female	34098	47,5	47,5	99,7
	Or would you describe yourself in another way?	215	,3	,3	100,0
	Total	71758	100,0	100,0	

Adjusted variable:

The group of workers describing themselves differently from male or female is extremely small within this dataset. Instead of using this variable, I use the computed variable *gender_recoded*, where the third group is randomly divided across male and female. This variable will be recoded so that males will form the reference group within the dummy variable (0=male; 1=female).

```
RECODE gender_recoded (1=0) (2=1) INTO
Gender_dummy.
EXECUTE.

FREQUENCIES VARIABLES=Gender_dummy
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN
MEDIAN
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

Statistics

Gender_dummy

N	Valid	71758
	Missing	0
Mean		,48
Median		,00
Std. Deviation		,499
Minimum		0
Maximum		1
Percentiles	25	,00
	50	,00
	75	1,00

Gender_dummy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	37548	52,3	52,3	52,3
	Female	34210	47,7	47,7	100,0
	Total	71758	100,0	100,0	

Age

Base variable: Age

Age was asked as follows: ‘’SCR_Age [age] Starting with yourself, how old are you?’’

This continuous variable is already fit for my analysis, as only the Refusals needed to be coded as Refusals.

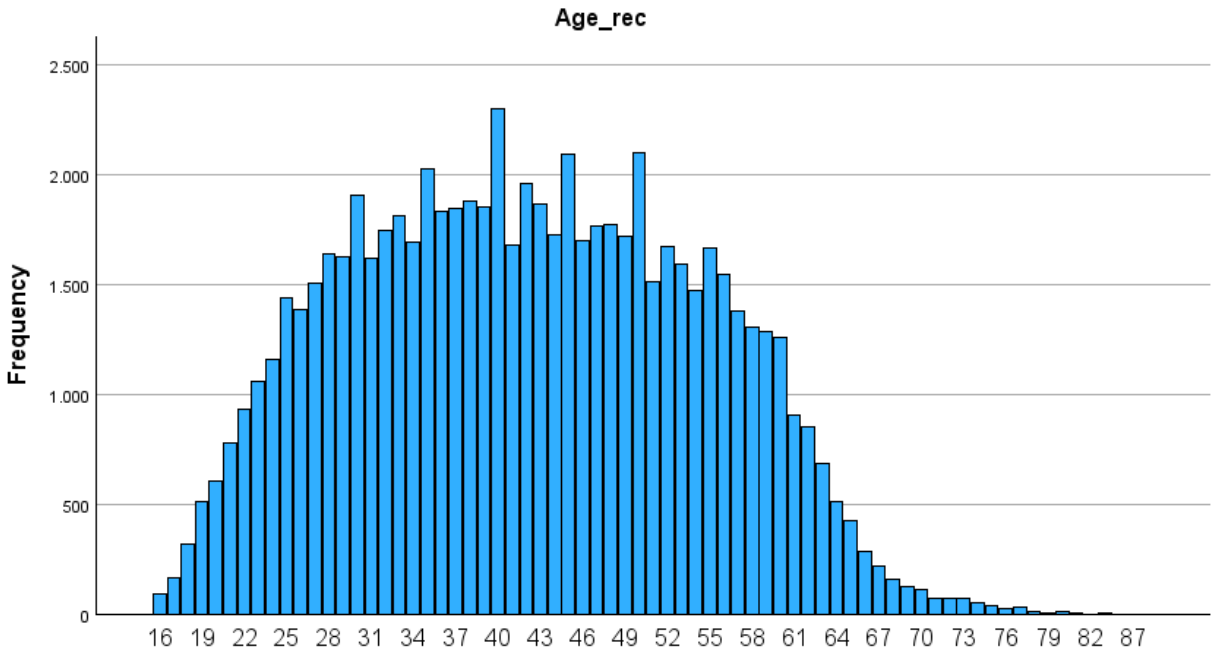
```
RECODE age (-999=SYSMIS) (ELSE=Copy) INTO
Age_rec.
EXECUTE.

FREQUENCIES VARIABLES=Age_rec
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN
MEDIAN
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

Statistics

Age_rec

N	Valid	71625
	Missing	133
Mean		41,9613
Median		42,0000
Std. Deviation		12,30501
Minimum		16,00
Maximum		88,00
Percentiles	25	32,0000
	50	42,0000
	75	52,0000



Education level

Base variable: Education_3cats

This variable is based on the question ‘’Q106 [ISCED_11] What is the highest level of education or training that you have successfully completed?’’ Ipsos recoded the answers according to the ISCED-classification system and computed a variable which unifies the differing education levels across countries into three groups:

‘’education_3cats’’

Primary education 1
Secondary education 2
Tertiary education 3

```
FREQUENCIES VARIABLES=education_3cats
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN
MEDIAN
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

Statistics

education_3cats -recoded variable

N	Valid	71393
	Missing	365
Mean		2,55
Median		3,00
Std. Deviation		,522
Minimum		1
Maximum		3
Percentiles	25	2,00
	50	3,00
	75	3,00

education_3cats -recoded variable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary education	885	1,2	1,2	1,2
	Secondary education	30144	42,0	42,2	43,5
	Tertiary education	40364	56,3	56,5	100,0
	Total	71393	99,5	100,0	
Missing	System	365	,5		
Total		71758	100,0		

Adjusted variable:

To make the variable fit for a logistical regression analysis, I have separated it into two dummies. Primary education will be the reference group set at 0 to both dummies.

```
RECODE education_3cats (2=1) (3=0) (1=0) INTO Education_Dummy_Secondary.
EXECUTE.

RECODE education_3cats (2=0) (3=1) (1=0) INTO Education_Dummy_Tertiary.
EXECUTE.
```

Appendix II: analyses

Univariate statistics

A selection of 20665 respondents was made to remove missing data from the univariate and bivariate analysis. This selection was based on whether respondents had a valid value on all used variables in the model.

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Lose_job
  /METHOD=ENTER Passion Trade_Union_Presence Gender_dummy Age_rec
    Education_Dummy_Secondary Education_Dummy_Tertiary Autonomy_Scale
  /SAVE RESID.


RECODE Residuals_MISSING (MISSING=0) (ELSE=1) INTO MISSING_reg.
EXECUTE.


USE ALL.
COMPUTE filter_$=(((routes = 1)  | (routes = 3)) & (MISSING_reg = 1)).
VARIABLE LABELS filter_$ '((routes = 1)  | (routes = 3)) & (MISSING_reg = 1)
(FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.
```

```
FREQUENCIES VARIABLES=BiLogD1_PWC Passion Autonomy_Scale
Trade_Union_Presence Gender_dummy Age_rec
        education_3cats
  /FORMAT=NOTABLE
  /NTILES=4
  /STATISTICS=STDDEV MINIMUM MAXIMUM SEMEAN MEAN MEDIAN
  /ORDER=ANALYSIS.
```

Statistics

		Lose_job	Passion	Autonomy	Trade_Union_ Presence	Gender	Age_rec	education
N	Valid	20665	20665	20665	20665	20665	20665	20665
	Missing	0	0	0	0	0	0	0
Mean		,14	3,95	10,93	,59	,49	41,82	2,57
Std. Error of Mean		,00	,01	,02	,00	,00	,08	,00
Median		0	4	11	1	0	42	3
Std. Deviation		,34	,97	2,99	,49	,50	11,93	,51
Minimum		0	1	3	0	0	16	1
Maximum		1	5	15	1	1	81	3
Percentiles	25	0	3	9	0	0	32	2
	50	0	4	11	1	0	42	3
	75	0	5	13	1	1	51	3

Bivariate analysis

I use continuous, nominal and ordinal variables in my statistical model, so I used multiple bivariate tests. Relations of continuous variables with other continuous or dummy variables are summarised with Pearson's correlation. Relations of nominal variables with other categorical variables are summarised with Phi. R was used for relations between ordinal variables and continuous variables. Correlations were calculated among the respondents used in the final model.

Correlation autonomy and age

```
CORRELATIONS
  /VARIABLES=Autonomy_Scale
Age_rec
  /PRINT=TWOTAIL NOSIG FULL
  /STATISTICS DESCRIPTIVES
  /MISSING=PAIRWISE.
```

Correlations

		Autonomy_Scale	Age_rec
Autonomy_Scale	Pearson Correlation	1	,021**
	Sig. (2-tailed)		,002
	N	20665	20665
Age_rec	Pearson Correlation	,021**	1
	Sig. (2-tailed)	,002	
	N	20665	20665

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

T-tests autonomy and age with gender

```
T-TEST GROUPS=Gender_dummy(0 1)
  /MISSING=ANALYSIS
  /VARIABLES=Autonomy_Scale Age_rec
  /ES DISPLAY(TRUE)
  /CRITERIA=CI(.95).
```

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					
						Significance			
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference
Autonomy_Scale	Equal variances assumed	,222	,637	6,278	20663	<,001	<,001	,26117	,04160
	Equal variances not assumed			6,278	20642,005	<,001	<,001	,26117	,04160
Age_rec	Equal variances assumed	4,811	,028	-6,061	20663	<,001	<,001	-1,00499	,16581
	Equal variances not assumed			-6,064	20660,587	<,001	<,001	-1,00499	,16574

```
CORRELATIONS
  /VARIABLES=Gender_dummy
Age_rec
  /PRINT=TWOTAIL NOSIG FULL
  /MISSING=PAIRWISE.
```

Correlations

		Gender_dummy	Age_rec
Gender_dummy	Pearson Correlation	1	,042**
	Sig. (2-tailed)		<,001
	N	20665	20665
Age_rec	Pearson Correlation	,042**	1
	Sig. (2-tailed)	<,001	
	N	20665	20665

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

```
CORRELATIONS
/VARIABLES=Gender_dummy
Autonomy_Scale
  /PRINT=TWOTAIL NOSIG FULL
  /MISSING=PAIRWISE.
```

Correlations

		Gender_dummy	Autonomy_Scale
Gender_dummy	Pearson Correlation	1	-,044**
	Sig. (2-tailed)		<,001
	N	20665	20665
Autonomy_Scale	Pearson Correlation	-,044**	1
	Sig. (2-tailed)	<,001	
	N	20665	20665

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

T-tests autonomy and age

with Trade union presence

```
T-TEST GROUPS=Trade_Union_Presence(0 1)
  /MISSING=ANALYSIS
  /VARIABLES=Autonomy_Scale Age_rec
  /ES DISPLAY(TRUE)
  /CRITERIA=CI(.95).
```

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					
						Significance			
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference
Autonomy_Scale	Equal variances assumed	29,384	<,001	4,916	20663	<,001	<,001	,20764	,04224
	Equal variances not assumed			4,874	17851,545	<,001	<,001	,20764	,04260
Age_rec	Equal variances assumed	,011	,918	-15,570	20663	<,001	<,001	-2,60722	,16745
	Equal variances not assumed			-15,537	18285,558	<,001	<,001	-2,60722	,16781

```
CORRELATIONS

/VARIABLES=Trade_Union_Presence
Age_rec
  /PRINT=TWOTAIL NOSIG FULL
  /MISSING=PAIRWISE.
```

Correlations

		Trade_Union_Presence	Age_rec
Trade_Union_Presence	Pearson Correlation	1	,108**
	Sig. (2-tailed)		<,001
	N	20665	20665
Age_rec	Pearson Correlation	,108**	1
	Sig. (2-tailed)	<,001	
	N	20665	20665

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

```
CORRELATIONS

/VARIABLES=Trade_Union_Presence
Autonomy_Scale
  /PRINT=TWOTAIL NOSIG FULL
  /MISSING=PAIRWISE.
```

Correlations

		Trade_Union_Presence	Autonomy_Scale
Trade_Union_Presence	Pearson Correlation	1	-,034**
	Sig. (2-tailed)		<,001
	N	20665	20665
Autonomy_Scale	Pearson Correlation	-,034**	1
	Sig. (2-tailed)	<,001	
	N	20665	20665

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

T-tests autonomy and age with Lose_job dichotomisation

```
T-TEST GROUPS=BiLogD2_PWC(0 1)
  /MISSING=ANALYSIS
  /VARIABLES=Autonomy_Scale Age_rec
  /ES DISPLAY(TRUE)
  /CRITERIA=CI(.95).
```

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					
						Significance		Mean	Std. Error
		F	Sig.	t	df	One-Sided p	Two-Sided p	Difference	Difference
Autonomy_Scale	Equal variances assumed	152,434	<,001	18,909	20663	<,001	<,001	,92948	,04916
	Equal variances not assumed			17,724	7067,604	<,001	<,001	,92948	,05244
Age_rec	Equal variances assumed	,626	,429	6,468	20663	<,001	<,001	1,27676	,19739
	Equal variances not assumed			6,407	7625,050	<,001	<,001	1,27676	,19928

```
CORRELATIONS
  /VARIABLES=BiLogD2_PWC Age_rec
  /PRINT=TWOTAIL NOSIG FULL
  /MISSING=PAIRWISE.
```

Correlations

		1,2/3,4,5	Age_rec
1,2/3,4,5	Pearson Correlation	1	-,045**
	Sig. (2-tailed)		<,001
	N	20665	20665
Age_rec	Pearson Correlation	-,045**	1
	Sig. (2-tailed)	<,001	
	N	20665	20665

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

```
CORRELATIONS
  /VARIABLES=BiLogD2_PWC Autonomy_Scale
  /PRINT=TWOTAIL NOSIG FULL
  /MISSING=PAIRWISE.
```

Correlations

		1,2/3,4,5	Autonomy_Scale
1,2/3,4,5	Pearson Correlation	1	-,130**
	Sig. (2-tailed)		<,001
	N	20665	20665
Autonomy_Scale	Pearson Correlation	-,130**	1
	Sig. (2-tailed)	<,001	
	N	20665	20665

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

ANOVA autonomy and age

with passion

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS R CHANGE
  /CRITERIA=PIN(.05) POUT(.10) TOLERANCE(.0001)
  /NOORIGIN
  /DEPENDENT Autonomy_Scale
  /METHOD=ENTER Passion.
```

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,325[a]	,106	,106	2,83025	,106	2440,266	1	20663	<,001

a. Predictors: (Constant), Passion

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS R CHANGE
  /CRITERIA=PIN(.05) POUT(.10) TOLERANCE(.0001)
  /NOORIGIN
  /DEPENDENT Age_rec
  /METHOD=ENTER Passion.
```

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,080[a]	,006	,006	11,88882	,006	132,335	1	20663	<,001

a. Predictors: (Constant), Passion

ANOVA autonomy and age with education level

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS R CHANGE
  /CRITERIA=PIN(.05) POUT(.10) TOLERANCE(.0001)
  /NOORIGIN
  /DEPENDENT Autonomy_Scale
  /METHOD=ENTER education_3cats.
```

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,118[a]	,014	,014	2,97164	,014	293,998	1	20663	<,001

a. Predictors: (Constant), education_3cats -recoded variable

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS R CHANGE
  /CRITERIA=PIN(.05) POUT(.10) TOLERANCE(.0001)
  /NOORIGIN
  /DEPENDENT Age_rec
  /METHOD=ENTER education_3cats.
```

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,016[a]	,000	,000	11,92538	,000	5,033	1	20663	,025

a. Predictors: (Constant), education_3cats -recoded variable

Cross tables Lose_job, Passion, Trade union presence, Gender and education level

```
CROSSTABS
  /TABLES=BiLogD2_PWC BY Gender_dummy Trade_Union_Presence Passion
        education_3cats
  /FORMAT=AVALUE TABLES
  /STATISTICS= PHI
  /CELLS=COUNT
  /COUNT ROUND CELL.

CROSSTABS
  /TABLES=education_3cats BY Gender_dummy Trade_Union_Presence Passion
  /FORMAT=AVALUE TABLES
  /STATISTICS=CHISQ PHI
  /CELLS=COUNT
  /COUNT ROUND CELL.

CROSSTABS
  /TABLES=Passion BY Gender_dummy Trade_Union_Presence
  /FORMAT=AVALUE TABLES
  /STATISTICS=CHISQ PHI
  /CELLS=COUNT
  /COUNT ROUND CELL.

CROSSTABS
  /TABLES=Trade_Union_Presence BY Gender_dummy
  /FORMAT=AVALUE TABLES
  /STATISTICS=CHISQ PHI
  /CELLS=COUNT
  /COUNT ROUND CELL.
```

Crosstab

Count

		Gender		
		Male	Female	Total
Lose_job	Job secure	7951	7991	15942
	Job insecure	2562	2161	4723
Total		10513	10152	20665

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-,037	<,001
	Cramer's V	,037	<,001
N of Valid Cases		20665	

Crosstab

Count

		Trade_Union_Presence		
		Not present	Present	Total
Lose_job	Job secure	6107	9835	15942
	Job insecure	2453	2270	4723
Total		8560	12105	20665

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-,116	<,001
	Cramer's V	,116	<,001
N of Valid Cases		20665	

Crosstab

Count

		Passion					
		Never	Rarely	Sometimes	Often	Always	Total
Lose_job	Job secure	265	775	2904	6683	5315	15942
	Job insecure	196	422	1102	1595	1408	4723
Total		461	1197	4006	8278	6723	20665

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	,126	<,001
	Cramer's V	,126	<,001
N of Valid Cases		20665	

Crosstab

Count

		Education level			
		Primary	Secondary	Tertiary	Total
Lose_job	Job secure	134	6228	9580	15942
	Job insecure	57	2175	2491	4723
Total		191	8403	12071	20665

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	,063	<,001
	Cramer's V	,063	<,001
N of Valid Cases		20665	

Crosstab

Count

		Gender		
		Male	Female	Total
Education level	Primary	116	75	191
	Secondary	4859	3544	8403
	Tertiary	5538	6533	12071
Total		10513	10152	20665

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	,119	<,001
	Cramer's V	,119	<,001
N of Valid Cases		20665	

Crosstab

Count

		Trade_Union_Presence		
		Not present	Present	Total
Education level	Primary	95	96	191
	Secondary education	3977	4426	8403
	Tertiary	4488	7583	12071
Total		8560	12105	20665

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	,102	<,001
	Cramer's V	,102	<,001
N of Valid Cases		20665	

Crosstab

Count

		Passion					
		Never	Rarely	Sometimes	Often	Always	Total
Education level	Primary	11	10	42	28	100	191
	Secondary	282	589	1643	2773	3116	8403
	Tertiary	168	598	2321	5477	3507	12071
Total		461	1197	4006	8278	6723	20665

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	,152	<,001
	Cramer's V	,107	<,001
N of Valid Cases		20665	

Crosstab

Count

		Gender_dummy		
		Male	Female	Total
Passion	Never	260	201	461
	Rarely	629	568	1197
	Sometimes	2139	1867	4006
	Often	4097	4181	8278
	Always	3388	3335	6723
Total		10513	10152	20665

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	,034	<,001
	Cramer's V	,034	<,001
N of Valid Cases		20665	

Crosstab

Count

		Trade_Union_Presence		
		Not present	Present	Total
Passion	Never	238	223	461
	Rarely	576	621	1197
	Sometimes	1767	2239	4006
	Often	3176	5102	8278
	Always	2803	3920	6723
Total		8560	12105	20665

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	,064	<,001
	Cramer's V	,064	<,001
N of Valid Cases		20665	

Trade_Union_Presence * Gender_dummy Crosstabulation

Count

		Gender_dummy		
		Male	Female	Total
Trade_Union_Presence	Not present	4578	3982	8560
	Present	5935	6170	12105
Total		10513	10152	20665

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	,044	<,001
	Cramer's V	,044	<,001
N of Valid Cases		20665	

Multivariate analysis

I used stepwise binary logistic regression. First I added the controls *Gender, Age* and *Education level*. Then I added *Passion* and *Autonomy*, followed by *Trade Union Presence.* Finally, I added interaction terms of Trade union presence with passion and with autonomy.

```
USE ALL.
COMPUTE filter_$=(((routes = 1)  | (routes = 3)) & (MISSING_reg = 1)).
VARIABLE LABELS filter_$ '((routes = 1)  | (routes = 3)) & (MISSING_reg = 1)
(FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.


RECODE Lose_job (1=0) (2=0) (3=0) (4=1) (5=1) INTO BiLogD1_PWC.
VARIABLE LABELS  BiLogD1_PWC '1,2,3/4,5'.
EXECUTE.

COMPUTE TUxPassion=Trade_Union_Presence * Passion.
EXECUTE.

COMPUTE TUxAutonomy=Trade_Union_Presence * Autonomy_Scale.
EXECUTE.


LOGISTIC REGRESSION VARIABLES BiLogD2_PWC
  /METHOD=ENTER Gender_dummy Age_rec  Education_Dummy_Secondary
        Education_Dummy_Tertiary
  /METHOD=ENTER Passion Autonomy_Scale
  /METHOD=ENTER Trade_Union_Presence
  /METHOD=ENTER TUxPassion TUxAutonomy
  /SAVE=DEV LEVER DFBETA COOK
  /CLASSPLOT
  /PRINT=GOODFIT CI(95)
  /CRITERIA=PIN(0.05) POUT(0.10) ITERATE(20) CUT(0.5).
```

BLOCK 0

Classification Table[a,b]

Observed			Predicted: Lose_job		Percentage Correct
			Job secure	Job insecure	
Step 0	Lose_job	Job secure	15942	0	100,0
		Job insecure	4723	0	,0
	Overall Percentage				77,1

a. Constant is included in the model.

b. The cut value is ,500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-1,217	,017	5392,111	1	<,001	,296

BLOCK 1

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	137,463	4	<,001
	Block	137,463	4	<,001
	Model	137,463	4	<,001

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	22078,205[a]	,007	,010

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than ,001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	4,518	8	,808

Contingency Table for Hosmer and Lemeshow Test

		Lose_job = Job secure		Lose_job = Job insecure		
		Observed	Expected	Observed	Expected	Total
Step 1	1	1714	1729,069	391	375,931	2105
	2	1672	1665,483	391	397,517	2063
	3	1615	1617,222	412	409,778	2027
	4	1661	1647,315	427	440,685	2088
	5	1627	1629,644	460	457,356	2087
	6	1655	1629,551	457	482,449	2112
	7	1580	1595,124	516	500,876	2096
	8	1536	1550,383	538	523,617	2074
	9	1489	1493,348	559	554,652	2048
	10	1393	1384,860	572	580,140	1965

Classification Table[a]

			Predicted		
			Lose_job		Percentage Correct
	Observed		Job secure	Job insecure	
Step 1	Lose_job	Job secure	15942	0	100,0
		Job insecure	4723	0	,0
	Overall Percentage				77,1

a. The cut value is ,500

Variables in the Equation

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	Gender_dummy	-,134	,034	15,839	1	<,001	,875	,819	,934
	Age_rec	-,009	,001	37,347	1	<,001	,992	,989	,994
	Education_Dummy_Secondary	-,228	,160	2,010	1	,156	,797	,582	1,091
	Education_Dummy_Tertiary	-,501	,160	9,790	1	,002	,606	,443	,829
	Constant	-,419	,171	6,046	1	,014	,657		

a. Variable(s) entered on step 1: Gender_dummy, Age_rec, Education_Dummy_Secondary, Education_Dummy_Tertiary.

BLOCK 2

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	391,373	2	<,001
	Block	391,373	2	<,001
	Model	528,836	6	<,001

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	21686,832[a]	,025	,038

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than ,001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	11,858	8	,158

Contingency Table for Hosmer and Lemeshow Test

		Lose_job = Job secure		Lose_job = Job insecure		
		Observed	Expected	Observed	Expected	Total
Step 1	1	1746	1776,552	321	290,448	2067
	2	1715	1728,852	350	336,148	2065
	3	1707	1696,916	359	369,084	2066
	4	1669	1669,221	399	398,779	2068
	5	1665	1642,433	406	428,567	2071
	6	1617	1607,078	451	460,922	2068
	7	1601	1568,309	467	499,691	2068
	8	1531	1518,652	536	548,348	2067
	9	1435	1450,278	633	617,722	2068
	10	1256	1283,709	801	773,291	2057

Classification Table[a]

Observed			Predicted		
			Lose_job		Percentage Correct
			Job secure	Job insecure	
Step 1	Lose_job	Job secure	15917	25	99,8
		Job insecure	4702	21	,4
	Overall Percentage				77,1

a. The cut value is ,500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	Gender_dummy	-,158	,034	21,690	1	<,001	,853	,798	,912
	Age_rec	-,007	,001	26,280	1	<,001	,993	,990	,996
	Education_Dummy_Secondary	-,213	,163	1,702	1	,192	,809	,588	1,113
	Education_Dummy_Tertiary	-,421	,163	6,691	1	,010	,656	,477	,903
	Passion	-,155	,017	78,703	1	<,001	,856	,828	,886
	Autonomy_Scale	-,080	,006	192,838	1	<,001	,923	,912	,933
	Constant	,950	,187	25,856	1	<,001	2,586		

a. Variable(s) entered on step 1: Passion, Autonomy_Scale.

BLOCK 3

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	244,833	1	<,001
	Block	244,833	1	<,001
	Model	773,669	7	<,001

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	21441,998[a]	,037	,056

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than ,001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	10,923	8	,206

Contingency Table for Hosmer and Lemeshow Test

		Lose_job = Job secure		Lose_job = Job insecure		
		Observed	Expected	Observed	Expected	Total
Step 1	1	1792	1813,578	275	253,422	2067
	2	1744	1765,451	325	303,549	2069
	3	1736	1723,749	330	342,251	2066
	4	1679	1687,620	389	380,380	2068
	5	1677	1646,702	389	419,298	2066
	6	1637	1606,966	433	463,034	2070
	7	1560	1556,652	507	510,348	2067
	8	1502	1498,612	566	569,388	2068
	9	1397	1416,269	671	651,731	2068
	10	1218	1226,402	838	829,598	2056

Classification Table[a]

			Predicted		
			Lose_job		Percentage Correct
	Observed		Job secure	Job insecure	
Step 1	Lose_job	Job secure	15885	57	99,6
		Job insecure	4649	74	1,6
	Overall Percentage				77,2

a. The cut value is ,500

Variables in the Equation

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	Gender_dummy	-,149	,034	18,879	1	<,001	,862	,806	,922
	Age_rec	-,005	,001	12,320	1	<,001	,995	,992	,998
	Education_Dummy_Secondary	-,194	,164	1,411	1	,235	,823	,597	1,135
	Education_Dummy_Tertiary	-,350	,164	4,590	1	,032	,704	,511	,971
	Passion	-,143	,018	65,992	1	<,001	,867	,838	,897
	Autonomy_Scale	-,086	,006	220,207	1	<,001	,917	,907	,928
	Trade_Union_Presence	-,536	,034	244,640	1	<,001	,585	,547	,626
	Constant	1,117	,188	35,254	1	<,001	3,057		

a. Variable(s) entered on step 1: Trade_Union_Presence.

BLOCK 4

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	5,355	2	,069
	Block	5,355	2	,069
	Model	779,024	9	<,001

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	21436,644[a]	,037	,056

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than ,001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	5,215	8	,734

Contingency Table for Hosmer and Lemeshow Test

		Lose_job = Job secure		Lose_job = Job insecure		
		Observed	Expected	Observed	Expected	Total
Step 1	1	1796	1804,104	273	264,896	2069
	2	1741	1755,971	326	311,029	2067
	3	1728	1721,758	339	345,242	2067
	4	1700	1689,017	367	377,983	2067
	5	1656	1653,903	411	413,097	2067
	6	1644	1613,815	423	453,185	2067
	7	1557	1566,655	510	500,345	2067
	8	1497	1507,956	572	561,044	2069
	9	1407	1419,353	660	647,647	2067
	10	1216	1209,469	842	848,531	2058

Classification Table[a]

Observed			Predicted		
			Lose_job		Percentage Correct
			Job secure	Job insecure	
Step 1	Lose_job	Job secure	15839	103	99,4
		Job insecure	4612	111	2,4
	Overall Percentage				77,2

a. The cut value is ,500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	Gender_dummy	-,150	,034	19,098	1	<,001	,861	,805	,921
	Age_rec	-,005	,001	12,146	1	<,001	,995	,992	,998
	Education_Dummy_Secondary	-,200	,164	1,485	1	,223	,819	,594	1,129
	Education_Dummy_Tertiary	-,356	,164	4,740	1	,029	,700	,508	,965
	Passion	-,161	,024	43,177	1	<,001	,851	,811	,893
	Autonomy_Scale	-,096	,008	136,219	1	<,001	,909	,894	,923
	Trade_Union_Presence	-,874	,154	32,371	1	<,001	,417	,309	,564
	TUxPassion	,038	,035	1,153	1	,283	1,038	,969	1,112
	TUxAutonomy	,018	,012	2,554	1	,110	1,019	,996	1,042
	Constant	1,290	,203	40,365	1	<,001	3,633		

a. Variable(s) entered on step 1: TUxPassion, TUxAutonomy.

Appendix III: Model quality

Assumption of Independent samples

Data collection

Ipsos used RDD, random digit dialling, for their sampling frame. It seems that there was no selection preventing respondents sharing the same household. Although I cannot claim the data collection resulted in totally independent samples, I do not expect any interference due to the randomisation.

Patterned Missing Values

```
MVA VARIABLES=Autonomy_Scale Age_rec Gender_dummy Trade_Union_Presence
    Passion BiLogD2_PWC education_3cats
  /MAXCAT=25
  /CATEGORICAL=Gender_dummy Trade_Union_Presence Passion BiLogD2_PWC
    education_3cats
  /TPATTERN PERCENT=1 DESCRIBE=Autonomy_Scale Trade_Union_Presence.
```

With the Missing Values Analysis, patterned missing values can be detected. Among the respondents using the M1a/M2a or the M1b/M2a questionnaire, the following distributions on the model variables were found. Missing cases show no different average autonomy, as they remain between 10 and 11 points. Passion also remains skewed towards higher scores in missing cases, though the distribution is flatter among those missing an answer to lose_job. Trade union distribution does differ greatly among

those respondents missing autonomy scores. Most of these respondents do not have a trade union present (92,9%). This may indicate that certain people are left out from my test sample, perhaps solo self-employed workers.

Tabulated Patterns

Number of Cases	Missing Patterns[a]							Complete if ...[b]	Autonomy[c]	Trade_Union_Presence[d]	
	Gender	Age_rec	Passion	Education level	Lose_job	Trade_Union_Presence	Autonomy			Not present	Present
20665								20665	10,9315	8560	12105
387					X			21052	10,5556	193	194
3774							X	24439	.	3506	268
1075						X		21740	10,4102	0	0

Patterns with less than 1% cases (264 or fewer) are not displayed.

a. Variables are sorted on missing patterns.

b. Number of complete cases if variables missing in that pattern (marked with X) are not used.

c. Means at each unique pattern

d. Frequency distribution at each unique pattern

Multicollinearity

The assumption of independent explaining variables is tested with the Variance Inflation Factor (VIF). The assumption is refuted if the threshold of VIF > 2,5 has been passed. Only the dummies representing different education levels are highly related to each other (VIF=26,73; VIF 26,81). This is not worrisome, because the shared variance can be linked to the dummies sharing the same reference group; the maximally primary educated people. The interaction terms have been left out because they consist of other variables and will necessarily be highly dependent on those variables.

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS TOL
  /DEPENDENT BiLogD2_PWC
  /METHOD=ENTER Passion
Trade_Union_Presence Gender_dummy
Age_rec Education_Dummy_Secondary
Education_Dummy_Tertiary
Autonomy_Scale.
```

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	Passion	,884	1,131
	Trade_Union_Presence	,973	1,028
	Gender_dummy	,979	1,022
	Age_rec	,980	1,020
	Education_Dummy_Secondary	,037	26,734
	Education_Dummy_Tertiary	,037	26,805
	Autonomy_Scale	,873	1,145

a. Dependent Variable: 1,2/3,4,5

Influential cases

DFBETAs, Cook's Distance and Leverage were calculated and saved when running the final statistical model. Thresholds for marking cases as influential were based on conventional formulas. 7509 influential cases were found.

With n=20665 and p=11

Leverage: $H_c > 2p/n = 0,0011$	997 cases passed this threshold
Cook's Distance > 4/n = 0,0002	6796 cases passed this threshold
DFBETA > 3/sqr(n) = 0,0208	6 cases passed this threshold

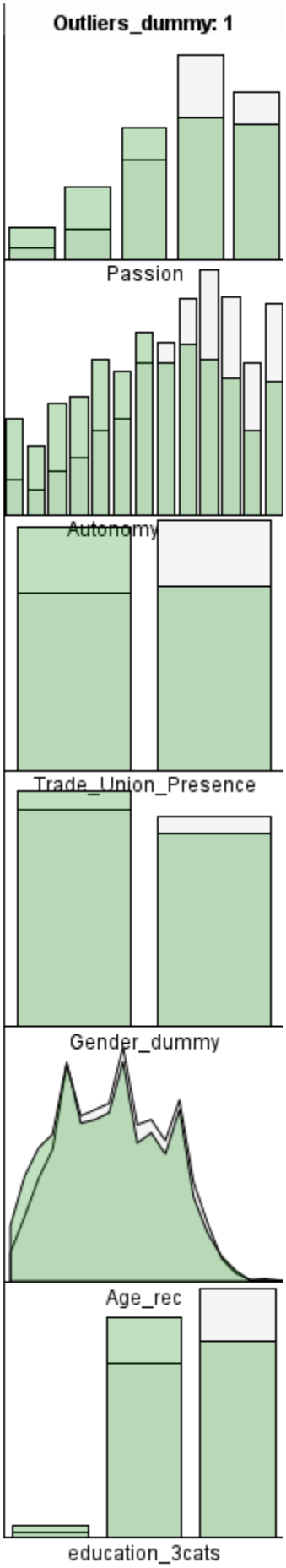
```
IF  ((LEV_3 > 0.0011) | (COO_3 > 0.0002) | (DFBETA_constant > 0.0208) |
(DFBETA_ed2> 0.0208) | (DFBETA_ed3> 0.0208)) Outliers=1.
EXECUTE.
```

```
USE ALL.
COMPUTE filter_$=(Outliers = 1).
VARIABLE LABELS filter_$ 'Outliers = 1 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.

FREQUENCIES VARIABLES=Lose_job Passion Autonomy_Scale
Trade_Union_Presence Gender_dummy Age_rec
        Solo_Self_employed_dummy BiLogD2_PWC education_3cats
  /NTILES=4
  /STATISTICS=STDDEV VARIANCE MINIMUM MAXIMUM SEMEAN MEAN MEDIAN
  /ORDER=ANALYSIS.
```

Statistics

		Passion	Autonomy	Trade_Union_ Presence	Gender	Age_rec	Lose_job	Education level
N	Valid	7509	7509	7509	7509	7509	7509	7509
	Missing	0	0	0	0	0	0	0
Mean		3,54	9,32	,43	,45	40,41	,63	2,43
Std. Error of Mean		,01	,04	,01	,01	,14	,01	,01
Median		4,00	9,00	,00	,00	40,00	1,00	2,00
Std. Deviation		1,19	3,42	,50	,50	12,55	,48	,54
Variance		1,42	11,68	,25	,25	157,46	,23	,30
Minimum		1	3	0	0	16	0	1
Maximum		5	15	1	1	81	1	3
Percentiles	25	3	7	0	0	30	0	2
	50	4	9	0	0	40	1	2
	75	5	12	1	1	50	1	3



The outliers have a lower average autonomy and passion. They are also younger. Looking at education, all people who have maximally achieved primary education are marked as outliers. There are also less people who have achieved tertiary education. Expecting to lose a job within six months is more prevalent among the outliers than in the total dataset. Rerunning the model without these cases has resulted in different regression coefficients.

```
STATS SUBGROUP PLOTS
SUBGROUP=Outliers_dummy VARIABLES=Passion
Autonomy_Scale Trade_Union_Presence
      Gender_dummy Age_rec education_3cats
/OPTIONS XSIZE=1.75 YSIZE=1.75 YSCALE=90
ALLDATACOLOR=whitesmoke
SUBGROUPCOLOR=green TRANSPARENCY=75
ALLDATAPATTERN=solid SUBGROUPPATTERN=solid
BINCOUNT=20 SMOOTHPROP=.05 ROWSIZE=1
MISSING=LISTWISE HISTOGRAM=AREA.
```

```
USE ALL.
COMPUTE filter_$=(((routes = 1)  | (routes = 3)) & (MISSING_reg = 1) &
(Outlier_dummy = 0)).
VARIABLE LABELS filter_$ ((routes = 1)  | (routes = 3)) & (MISSING_reg = 1) &
(Outlier_dummy = 0) (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.

LOGISTIC REGRESSION VARIABLES BiLogD2_PWC
  /METHOD=ENTER Gender_dummy Age_rec Education_Dummy_Secondary
        Education_Dummy_Tertiary
  /METHOD=ENTER Passion Autonomy_Scale
  /METHOD=ENTER Trade_Union_Presence
  /METHOD=ENTER TUxPassion TUxAutonomy
  /CLASSPLOT
  /PRINT=GOODFIT CI(95)
  /CRITERIA=PIN(0.05) POUT(0.10) ITERATE(20) CUT(0.5).
```

Classification Table[a]

			Predicted		
			1,2/3,4,5		Percentage Correct
	Observed		,00	1,00	
Step 1	1,2/3,4,5	,00	15240	38	99,8
		1,00	3689	31	,8
	Overall Percentage				80,4

a. The cut value is ,500

Variables in the Equation

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	Gender_dummy	-,240	,038	39,617	1	<,001	,787	,730	,848
	Age_rec	-,008	,002	21,650	1	<,001	,992	,989	,996
	Education_Dummy_Secondary	,043	,039	1,209	1	,272	1,044	,967	1,126
	Passion	-,133	,031	18,459	1	<,001	,876	,824	,930
	Autonomy_Scale	-,130	,010	161,822	1	<,001	,878	,861	,896
	Trade_Union_Presence	-1,168	,198	34,859	1	<,001	,311	,211	,458
	TUxPassion	,023	,045	,259	1	,611	1,023	,936	1,118
	TUxAutonomy	,033	,014	5,429	1	,020	1,034	1,005	1,063
	Constant	1,323	,152	75,542	1	<,001	3,753		

a. Variable(s) entered on step 1: TUxPassion, TUxAutonomy.

The model without outliers has some notable differences. The negative effects of gender, autonomy and trade union presence have increased (**Δ***b*=-0,09; **Δ***b*=-0,03; **Δ***b*=-0,30), while the negative effect of passion have decreased (**Δ***b*=0,03). Without outliers, the protective strength of gender, autonomy and trade union presence becomes stronger, while it becomes weaker for passion.

The model quality seems better, as it can correctly predict roughly 2% more cases. I have not deleted the outliers, because the outliers themselves generally show lower averages of passion, autonomy and education level and I do not want to exclude workers with these characteristics.

Model account

No ordinal analysis

The original coding of lose_job could fit well with ordinal regression. I have chosen not to do that, because the assumption of proportional odds was violated during the test of parallel lines.

```
PLUM Lose_job WITH Passion Autonomy_Scale Trade_Union_Presence
Gender_dummy Age_rec Education_Dummy_Secondary Education_Dummy_Tertiary
  /CRITERIA=CIN(95) DELTA(0) LCONVERGE(0) MXITER(100) MXSTEP(5)
PCONVERGE(1.0E-6) SINGULAR(1.0E-8)
  /LINK=LOGIT
  /PRINT= TPARALLEL.
```

Test of Parallel Lines[a]

Model	-2 Log Likelihood[b]	Chi-Square	df	Sig.
Null Hypothesis	49721,237			
General	49601,699	119,538	27	<,001

The null hypothesis states that the location parameters (slope coefficients) are the same across response categories.

a. Link function: Logit.

b. The kernel of the log-likelihood function is displayed.

Dichotomisation Lose_job

```
USE ALL.
COMPUTE filter_$=(((routes = 1)  | (routes = 3)) & (MISSING_reg = 1)).
VARIABLE LABELS filter_$ '((routes = 1)  | (routes = 3)) & (MISSING_reg = 1)
(FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.

RECODE Lose_job (1=0) (2=0) (3=0) (4=1) (5=1) INTO BiLogD1_PWC.
VARIABLE LABELS  BiLogD1_PWC '1,2,3/4,5'.
EXECUTE.

RECODE Lose_job (1=0) (2=0) (3=1) (4=1) (5=1) INTO BiLogD2_PWC.
VARIABLE LABELS  BiLogD2_PWC '1,2/3,4,5'.
EXECUTE.

LOGISTIC REGRESSION VARIABLES BiLogD1_PWC
  /METHOD=ENTER Passion Autonomy_Scale Trade_Union_Presence
Gender_dummy
        Age_rec Education_Dummy_Secondary Education_Dummy_Tertiary
TUxPassion TUxAutonomy
  /CLASSPLOT
  /PRINT=GOODFIT CI(95)
  /CRITERIA=PIN(0.05) POUT(0.10) ITERATE(20) CUT(0.5).
```

Classification Table[a]

			Predicted		
			1,2,3/4,5		Percentage Correct
	Observed		,00	1,00	
Step 1	1,2,3/4,5	,00	17835	1	100,0
		1,00	2826	3	,1
	Overall Percentage				86,3

a. The cut value is ,500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Passion	-,163	,028	33,078	1	<,001	,849	,803	,898
	Autonomy_Scale	-,097	,010	104,241	1	<,001	,907	,890	,924
	Trade_Union_Presence	-,966	,180	28,843	1	<,001	,381	,268	,542
	Gender_dummy	-,208	,042	24,892	1	<,001	,812	,748	,881
	Age_rec	-,007	,002	14,587	1	<,001	,993	,990	,997
	Education_Dummy_Secondary	-,514	,176	8,571	1	,003	,598	,424	,844
	Education_Dummy_Tertiary	-,726	,176	17,126	1	<,001	,484	,343	,682
	TUxPassion	,100	,042	5,693	1	,017	1,105	1,018	1,200
	TUxAutonomy	,010	,014	,536	1	,464	1,010	,983	1,038
	Constant	1,071	,223	23,061	1	<,001	2,918		

a. Variable(s) entered on step 1: Passion, Autonomy_Scale, Trade_Union_Presence, Gender_dummy, Age_rec, Education_Dummy_Secondary, Education_Dummy_Tertiary, TUxPassion, TUxAutonomy.

The new dichotomisation of lose_job led to changes of the regression coefficients. The strength of trade union presence, two education dummies, gender and the interaction of passion increased (**Δ***b*=-0,10; **Δ***b*=-0,31; **Δ***b*=-0,37; **Δ***b*=-0,06; **Δ***b*=0,06). In contrast, the strength of the autonomy interaction halved (**Δ***b*=-0,01). This model does produce more correctly predicted cases within the sample (%=86,3; **Δ**%=9,1), but even less cases are marked as experiencing job instability (%=0,1; **Δ**%=-2,3). Because the model is even less capable of correctly labelling workers experiencing job instability with this dichotomisation, I have kept the original coding of lose_job.

Appendix IV: Extra tables and figures

Table 4: Classification table of the regression model per step

Observed		Predicted		Percentage correct
Lose_job		0	1	
Step 0	0	15942	0	100,0
	1	4723	0	0,0
	Overall percentage			77,1
Step 1	0	15942	0	100,0
	1	4723	0	0,0
	Overall percentage			77,1
Step 2	0	15917	25	99,8
	1	4702	21	0,4
	Overall percentage			77,1
Step 3	0	15885	57	99,6
	1	4649	74	1,6
	Overall percentage			77,2
Step 4	0	15839	103	99,4
	1	4612	111	2,4
	Overall percentage			77,2

Table 4 shows a measure of the final model's accuracy within the sample. Its predictive ability is visible through comparing the amount of rightly labelled cases with the amount of wrongly labelled cases. The final model differs marginally with the zero-model, which labels all cases as the average lose_job; as workers who do not expect to lose their job soon.

Table 5: The chance of expecting to lose their job within six months for a male worker at the age of 42 who has achieved maximally a primary education level. Model 4 with interaction.*

Variables	**Chance with trade union present**		**Chance without trade union**	
Scores at	**Minimum**	**Maximum**	**Minimum**	**Maximum**
Passion (with average autonomy)	48,3%	26,3%	26,9%	18,5%
Autonomy (with average passion)	32,7%	15,7%	48,3%	21,9%

***Average autonomy = 11 and average passion = 4

*Table 6: The chance of expecting to lose their job within six months for a male worker at the age of 42 who has achieved maximally a primary education level. Model 3 with no interaction.**

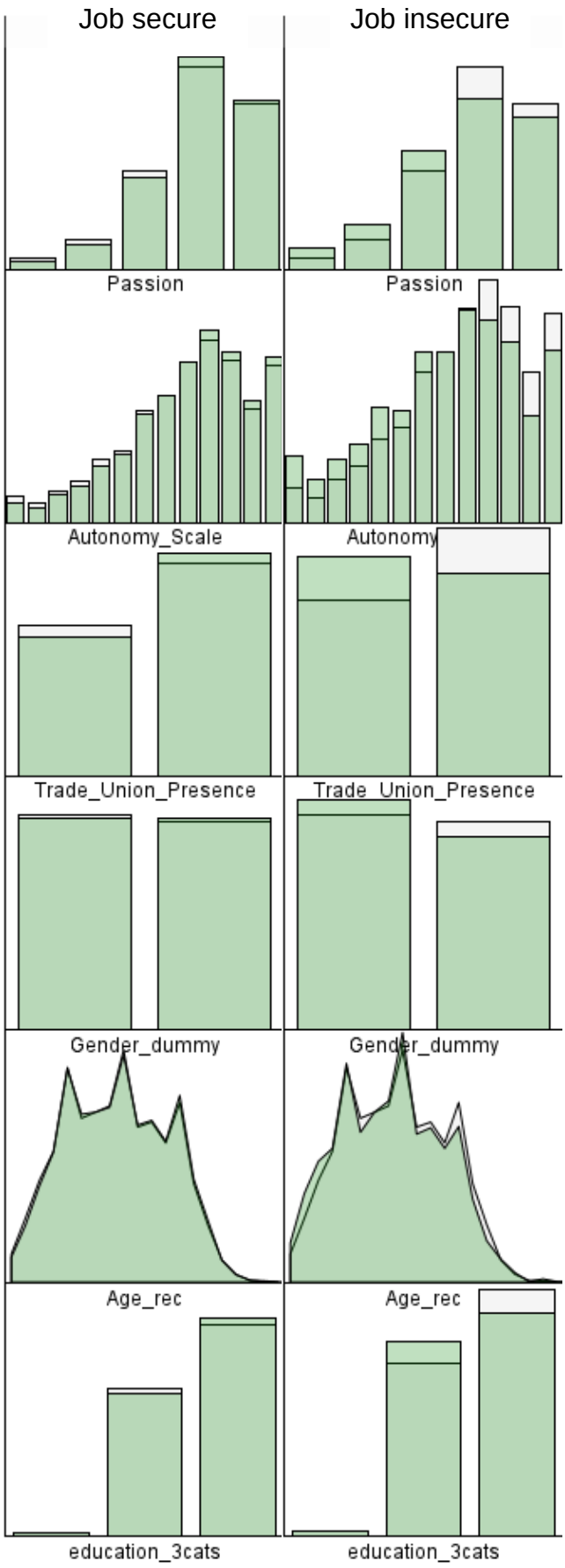
Variables	Chance with trade union present		Chance without trade union	
Scores at	**Minimum**	**Maximum**	**Minimum**	**Maximum**
Passion (with average autonomy)	27,5%	17,8%	39,4%	27,1%
Autonomy (with average passion)	33,8%	14,8%	46,8%	23,0%

***Average autonomy = 11 and average passion = 4

Tables 5 and 6 show the calculated chances of the average worker with primary education level to experience job insecurity. This calculation was made with the following formula. P(lose_job)=

$$\frac{e^{intercept + \beta gender + \beta age + \beta Education + \beta passion + \beta autonomy + \beta trade\ union + \beta TUxP + \beta TUxA}}{1+e^{ntercept + \beta gender + \beta age + \beta Education + \beta passion + \beta autonomy + \beta trade\ union + \beta TUxP + \beta TUxA}}$$

Without interaction, trade union presence decreases the chance of believing to lose your job within six months. This effect reverses when interaction is added. Then, trade union presence leads to higher chances through passion. Passion has a higher interaction term and a lower range of direct effect than autonomy. Because of this, trade union presence increases the chance of experienced job instability through its interaction with passion, accounting for autonomy.



This figure shows the proportion of respondents across different variable categories. The solid green indicates the percentages within a subgroup, whilst solid white indicates the percentages within all used data. The left column compares workers with job stability against all respondents. The right compares workers without job stability against all workers. This shows how these workers are generally less passionate, less autonomous, less educated and older. They are also more often men and more often not covered by a trade union than workers who do experience job stability.

Appendix V: Artificial Intelligence statement

No artificial intelligence has been used for the literature research, data analysis nor the writing of this paper.