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Are All Self-employed Happy?

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Abstract

In this paper we answer the question whether all self-employed have high levels of job satisfaction and subjective well-being compared to paid employed and if differences can be explained by differences in meaning of the job. Using the European Working Conditions Survey held in 2015 we find big differences between paid employed and independent and precarious self-employed. The independent self-employed are the most satisfied and happy whereas the precarious self-employed are the least satisfied and happy. These differences can be explained by autonomy, competence and usefulness of the job. We find that differences in subjective well-being are smaller than differences in job satisfaction. This is most probably due to differences in work-life balance.

Key words:

Self-employment, subjective well-being, job satisfaction, precarious employment, meaning of the job, entrepreneurship

JEL-codes:

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Are all self-employed happy?

1 Introduction

Research into job satisfaction and subjective well-being of self-employed already has a long history (Benz & Frey, 2008a; Benz & Frey, 2008b; Blanchflower & Oswald, 1998; Hundley, 2001; Schneck, 2014). This research shows that self-employed are more satisfied with their jobs and life than employees, despite an average lower income, longer working hours and more strain on the job. Benz and Frey (2008a) explain this main result by what they call procedural utility. They argue that the self-employed not only derive utility from the outcomes they achieve, but especially value how the outcomes are achieved. That is so because people value self-determination, freedom and autonomy (Ryan & Deci, 2000) and other non-monetary rewards (Cassar & Meier, 2018). Benz and Frey say they find support for their explanation, because differences in autonomy, independency and work content explain away the differences in job satisfaction between self-employed and employed.

Although these findings seem to solve the puzzle of the differences between self-employed and employed, this is not the full story. Block and Koellinger (2009) showed that there are differences between independent self-employed and precarious self-employed¹. They argue that some self-employed start their business out of opportunity, because these people see good opportunities to become self-employed, make a decent living, have satisfying, although sometimes straining, work, perceive to be flexible, have a high level of autonomy and independency and learn new things. These reasons to become self-employed support the explanation and findings of Benz and Frey (2008a) and Schneck (2014) about the satisfaction of self-employed.

Besides the independent self-employed, Block and Koellinger (2009) argue that some self-employed start their own business out of necessity. These people were either long term unemployed or could not find a suitable job elsewhere on the labour market and therefore see themselves forced to start their own business to make a living. These people find themselves in a precarious position on the labour market. They therefore don't need to be as satisfied as the independent self-employed.

Their findings do raise further questions. First of all, whether these findings can be extended to all self-employed. Block and Koellinger (2009) only investigate self-employed who just began their business. We want to extend the research to all self-employed, including self-employed who are already longer in business. Second, Block and Koellinger (2009) use long-term unemployment and lack of labour market opportunities as criteria to distinguish between independent and precarious self-employed. In this paper we distinguish between the independent and precarious self-employed on

¹ (J. Block & Koellinger, 2009) use the terms: entrepreneurs out of opportunity and entrepreneurs out of necessity. For reasons of consistency and readability in this paper we label them independent and precarious self-employed.

bases of survey questions that directly ask why people became self-employed. Furthermore, we want to compare the independent and precarious self-employed with people in paid employment.

Next to the differences in job satisfaction we investigate differences in subjective well-being. We do so because some studies report that self-employed have both higher job satisfaction and subjective well-being than employed, whereas other studies report that self-employed have the same level of subjective well-being as employed (Parker, 2009). The reason for this could be that subjective well-being is a more encompassing concept than job satisfaction and is affected by other factors, like work-life balance, which can be different between self-employed and the paid-employed.

The main research question of this paper is whether the job satisfaction and subjective well-being of independent self-employed is higher than that of paid employees and that of precarious self-employed and if these differences can be explained by differences in non-monetary rewards like, autonomy, competence, social relatedness and meaning.

To the existing literature we add a more extended analyses of the independent and precarious self-employed, including more self-employed, not only start-ups and including more Western European countries. We are among the first to compare these two types of self-employed with paid employees, using the 6th European Working Conditions Survey held in 2015. The final addition is that we test differences in both job satisfaction and subjective well-being between the independent self-employed, precarious self-employed and paid-employed and test for differences between these effects.

The paper is structured as follow. In the next section we give an overview of the literature about job satisfaction and subjective well-being of independent and precarious self-employed and paid-employed and derive testable hypotheses. In section three we describe the data and method. In section four and five we present our results and in the final section we summarize and conclude our paper.

2 Job satisfaction and subjective well-being of self-employed and employed

Quite a lot of research showed that self-employed are more satisfied with their job than paid-employed. This appears to be a puzzle because many of the objective job characteristics that are known to affect job satisfaction are worse for the self-employed than for the paid employed. Self-employed work longer hours and work under quite some pressure. Their work is stressful and they feel exhausted in the evenings after a long day of work. Self-employed lose sleep because they worry about their work and despite all hard work they earn less than comparative paid-employees (Benz & Frey, 2008a; Benz & Frey, 2008b; Blanchflower & Oswald, 1998; Blanchflower, 2004; Hundley, 2001; Schneck, 2014).

So objectively seen they should report a lower job satisfaction, but they do not. It is even contrarily, self-employed report a higher job satisfaction. In the standard neo-classical economic model it is the outcome of labour, given the level of effort or the hours of work, that determines utility,

i.e. job satisfaction, derived from the job. Given the longer hours and the lower income self-employed should be less satisfied than paid-employed. To explain this contradiction Benz and Frey (2008a) introduced the concept of procedural utility. They argued that not only the outcomes of the job determine utility, but also how these outcomes were achieved. Autonomy plays an important role in their argument. Referring to Ryan and Deci (2000) they argue that of the basic psychological needs, the self-employed value autonomy more than paid-employed. They therefore search for employment in which autonomy is high. Given that the level of autonomy is highest for self-employed, they are their own boss and able to determine themselves what to do, when to do and how to do, these people will strive to become self-employed. The difference in autonomy thus explains the difference in job satisfaction between self- and paid employed. The empirical results of Benz and Frey (2008a) and also those of Schneck (2014) support these ideas. Controlling for autonomy they do not find differences in job satisfaction between self-employed and paid-employed.

The argument can be made stronger by referring to the work of Cassar and Meier (2018) who argue that next to the monetary rewards of the job the non-monetary rewards are important as well. According to them people derive meaning from their jobs, next to monetary rewards. Meaning is derived from job characteristics or working conditions that help fulfil basic psychological needs; autonomy, competence and relatedness. These are the basic psychological needs as defined by Deci and Ryan (2000) and referred to by Benz and Frey. Besides these psychological needs people can derive additional meaning from the job if they work for an organization or have a job, that has some kind of purpose, next to making profit. This purpose must be viewed as something positive, especially to mankind or society at large. Examples are trying to improve sustainability or other goals that improve society at large, i.e. by providing charities. This can be related to the products that are made or the services that are being provided. In this framework income and hours of work on the one hand can be substituted, i.e. compensated, by the meaning of a job.

Thus, if the meaning of a job of the self-employed is higher than that of paid-employed than it can compensate for the low income and long hours of work, and possibly more than compensate. This would explain the higher level of job satisfaction of the self-employed. The idea of procedural utility fits within this framework, because procedural utility is mainly derived from autonomy, which according to Cassar and Meier (2018) is one of the basic components of meaning of the job.

Based on this research we hypothesize that self-employed derive more meaning from the job than paid-employed (H1a), are more satisfied with their job than paid-employed (H1b) and that this difference can be explained by the difference in meaning of the job (H1c).

At least since Block and Koellinger (2009) we know that differences among self-employed are large. In their research they distinguish between independent self-employed and precarious self-employed. They show that these two types of self-employed have different reasons to begin for themselves, have different working conditions and have different outcomes out of their job (i.e. Binder & Coad, 2013). In a further research they show that these entrepreneurs not only differ in the reasons

why they become self-employed, but that they also differ in the way that they run their businesses (Block, Kohn, Miller, & Ullrich, 2014). Independent self-employed apply more often a strategy based on differentiation and innovation and produce more often for a niche market, in which they try to compete on basis of quality of their products and services. On the other hand, precarious self-employed apply more often a cost-reduction strategy, in which they compete on low costs and small margins, with the consequence of a low income for themselves. Such a strategy gives them much less leeway how to run their business than independent self-employed. These two types of self-employed also differ in the amount of risk they are willing to take to be successful (Block, Sandner, & Spiegel, 2015). Independent self-employed are more willing to take risks than precarious self-employed, probably because they have a sounder business and higher financial buffers.

Oostveen, Biletta, Parent-Thirion and Vermeylen (2013) argue too, that a distinction needs to be made between the self-employed. They too, distinguish between independent self-employed and precarious self-employed. The precarious self-employed have no access to social rights, i.e. unemployment or disability benefits, depend on a single client and have no real autonomy in running their business. I.e. they are unable to hire personnel, even when it would be necessary and are not able to make the most important decisions in how to run their business. Using the European Working Conditions Survey 2010 they show that such a class of precarious self-employed exists within Europe and show that they have a low level of mental well-being, lower than employees who lag behind the ordinary self-employed.

Based on the research of Block and Koellinger (2009) and Oostveen et al. (2013), we can expect that the independent and precarious self-employed will show differences in job satisfaction. The independent self-employed will have more job satisfaction (H2a), will have more meaning in the job (H2b) than precarious self-employed and these difference in meaning will explain the differences in job satisfaction between the independent and precarious self-employed (H2c).

Another point we need to elaborate is how the precarious self-employed relate to the paid-employed. Both categories have less meaning in the job and lower job satisfaction than independent self-employed, but thus far hardly anything has been said or argued about differences in job satisfaction between these two groups. An important argument that precarious self-employed have less job satisfaction than paid employees is that many of the precarious self-employed actually would like to be in paid employment but are unable to get such a position (Block & Koellinger, 2009). If they would have the opportunity to take up paid employment, they would do so. This should increase their job satisfaction, otherwise they would choose to stay self-employed. On basis of this we can expect that precarious self-employed will have less job satisfaction than paid employees.

We can also have a look at how employers use these two types of labour as inputs in their company. Paid-employed are mostly hired on a permanent contract, have a stable employment relationship with a single employer and are paid a regular wage or salary. Precarious self-employed are more or less forced into self-employment and do not have a stable employment relation. The

contract is flexible and wages are paid on a no-cure-no-pay basis. When no work is at hand the precarious self-employed will not be hired and they will not receive a remuneration. They perceive a high level of job insecurity and most probably belong to the informal or precarious labour market. And this insecurity reduces their job satisfaction (Cheng & Chan, 2008; Sverke, Hellgren, & Näswall, 2002). The research literature shows a consistently positive effect of work security on well-being for all workers (Green, 2011; Knabe, Rätzel, Schöb, & Weimann, 2010).

Based on these assumptions our third hypothesis reads that the precarious self-employed will have less meaning and therefore also a lower level of job satisfaction than the paid employed (H3). This implies that we have a ranking from high to low, both for meaning of the job and of job satisfaction, from independent self-employed via paid employed to the precarious self-employed.

2.1 Subjective well-being

There is more to life than work and so there is more in life than job satisfaction. A more overarching measure of utility is subjective well-being of which job satisfaction is just a part, although a major one. Subjective well-being is derived not only from work, but also from other parts in life. It encompasses social life, having a family, a partner, children, enjoying leisure and other activities as well (Diener, Suh, Lucas, & Smith, 1999). The relation between job satisfaction and subjective well-being is strong, but is far from perfect. Although independent self-employed are the most satisfied with their jobs, this does not necessarily hold for subjective well-being (Parker, 2004). Until now this relation is insufficient clear (Dolan, Peasgood, & White, 2008).

First of all, there is a discussion whether job satisfaction spills over in subjective well-being or that subjective well-being spills over in job satisfaction (Diener et al., 1999). Until now this discussion is not yet settled, possibly because they influence each other. But supposing that there is a spill-over from job satisfaction into subjective well-being it is not said, a priori, that independent self-employed will have a higher level of subjective well-being than paid-employed.

Many job characteristics that do have a positive effect on job satisfaction also will have a positive effect on subjective well-being. Because people like self-determination, freedom and autonomy (Ryan & Deci, 2000), job characteristics that influence these, like possibilities for learning, or autonomy will have a positive effect on subjective well-being. Also, job characteristics that have a negative effect on job satisfaction will have a negative effect on subjective well-being as well. Based on these arguments one would expect to get almost the same results from analysing job satisfaction as from subjective well-being. However, we need to consider other aspects as well. One major aspect is the influence of work-life balance on subjective well-being. Persons with a bad work-life balance will show lower levels of subjective well-being and vice versa. The question than arises whether the work-life balance of the independent self-employed is better, worse or equal to that of the paid employed and the precarious self-employed (Kelliher, Richardson, & Boiarintseva, 2019).

Two main factors influence the work-life balance of people. The first one is the control over one's own working time and the second one is the total amount of working hours (Hughes & Parkes, 2007; Parasuraman & Simmers, 2001). This results in the paradox of self-employment (Kelliher et al., 2019). Self-employed have a high level of autonomy, but also the need to be always available. Independent self-employed have more control over their working time than paid employed. More autonomy and higher flexibility in working hours suggests that the work-life balance of the independent self-employed is better than that of the paid employed. On the other hand, independent self-employed work longer hours than the paid-employed, not only during normal weekdays, but also more often in the weekends. They work longer hours because they are and feel responsible for their business. These longer working hours do have a negative impact on the work-life balance. There is less time left to enjoy together with the family, to enjoy other leisure activities and have a social life.

Although the control over working time does moderate the relationship between working hours and work-life balance (Hughes & Parkes, 2007) it is unknown how this, together with the longer working hours, affects the difference in subjective well-being between the independent self-employed and the paid employed. Based on the textbook by Parker (2009) and the research of Binder and Coad (2016, 2013) we expect that the differences in subjective well-being between independent self-employed and paid-employed will be smaller than their differences in job satisfaction (H4a).

Because precarious self-employed have much less control over their working time than independent self-employed and may be even worse than the paid-employed (Binder & Coad, 2013), we expect that the differences in subjective well-being between the precarious self-employed and the paid-employed is at least as big as their differences in job satisfaction (H4b).

3 Data and Method

Data

To test the hypotheses, we use the European Working Conditions Survey (Eurofound, 2017) held in 2015. This is the second survey that contains questions that can be used to distinguish between independent and precarious self-employed. Furthermore, it contains questions about job satisfaction, subjective well-being and job and personal characteristics. Of this data set we use data from the first fifteen member states of the European Union, because these economies are the most integrated. We furthermore limit the analyses to persons between twenty and sixty years of age. Extensive information and descriptive results from this survey can be found on the website of Eurofound².

Before we make the distinction between independent self-employed, precarious self-employed and paid-employed we would like to bring some clarification in the typologies that has been used in past research. First of all, we have the distinction between self-employed and paid employees, The

² <https://www.eurofound.europa.eu/data>

self-employed run in principal their own business and bear all the entrepreneurial risk, whereas the paid employees do have some kind of employment contract, which guarantees some kind of income. Block and Koellinger (2009) refer to the self-employed as entrepreneurs, but these two categories are basically the same.

In surveys it might be difficult to detect all self-employed, because some self-employed, i.e. business-owners, might have an employment contract as a director. The European Working Conditions Survey asks some additional questions that classify these directors of own business as self-employed. Among the self-employed we make a further distinction.

The EWCS 2015 includes questions about the reasons for self-employment. These questions appear to follow the typology of Block and Koellinger (2009). We distinguish three employment categories³. The first one is being a paid-employee. Next, we distinguish between independent and precarious self-employed. To do so we use a direct question about independent and precarious self-employment. This question asks whether someone became self-employed because he or she followed his or her preferences, or because he or she saw no other alternatives for work.

We measure job satisfaction by a single question: 'On the whole, are you satisfied etc. with working conditions in your main paid job?' Answers are on a four-point scale. As a second dependent variable we analyse subjective well-being measured by five items like 'I have felt a cheerful and in good spirits', 'I have felt calm and relaxed'. The scale has a reliability of .88.

We add personal characteristics as control variables. We use a dummy for gender, a dummy for having a partner, a dummy for living together with children younger than 13 years of age and a dummy for being an immigrant. We also use age, subjective health and education. We present the descriptive statistics by employment category in table 1. All the personal characteristics differ by employment category except the presence of children.

To measure the meaning of a job we use four job characteristics: autonomy, discretion learning and useful. We measure autonomy if it is possible for a person to take an hour or two off during working hours for personal matters easily or not. This is a four-point scale. Discretion consists of six items about if you are consulted about your work, are involved in improving work, have a say in the choice of colleagues, can take a break if needed, able to apply own ideas and can influence decisions that are important for the work. The reliability of this five-point scale is .78. We measure learning by a dummy variable that indicates whether it is possible to learn new things. We create a variable labelled useful that consists of four items that ask about feeling of work well done, feeling to do useful work, and whether you know what is expected of you at work. The reliability of this scale is .70.

³ A full explanation of the coding of all the variables is given in the Appendix. We coded many items in a reverse order so that all variables run from low to high.

Next to the above job characteristics we added a few others as control variables. We add two measures for work pressure. The first one asks about the necessity to work in your free time to meet work demands on a five-point scale. We label this one as overtime. The second one is a scale based on two items measuring working at high speed and to tight deadlines, labelled work pressure. The reliability of this seven-point scale is .80. We measure training by a scale which relates to training activities over the last 12 months using multiple correspondence analyses.

We create a measure of irregular working hours using a question about working at night, on Saturdays and Sundays. The reliability of this scale is .65. We also create a scale of flexible working hours using multiple correspondence analyses of questions about working the same number of hours every day, every week, the same days every week and fixed starting and finishing times. We create a dummy variable indicating monotonous tasks.

We create a scale labelled dirty based on nine items asking about vibrations, noise, high temperatures, low temperatures etc. The reliability of this scale is .83. Furthermore, a scale indicating the volatility of the job based on changes in the number of hours per week, the salary, amount of influence and the tasks during the last twelve months (volatility). The reliability of this scale is .70.

We create dummy variables indicating whether persons would like to work more or less hours than they do. Finally, we use a measure of subjective income. Descriptive statistics of the job characteristics by employment categories are presented in table 2. Almost all job characteristics differ by employment category, except for work pressure and dirty.

Method

To test the hypotheses, we estimate structural equation models in which job satisfaction and subjective well-being are the dependent variables. We estimated both a multi-level structural equation model and a simpler linear model including fixed effects for the fifteen countries. Within this framework we can test directly the hypotheses about the differences in effects between the independent, precarious and paid (self-)employed. We also estimate direct, indirect and total effects of autonomy, discretion, learning and useful, thus testing the mediation effects of meaning as stated in the hypotheses. Both structural equation models give similar results, but the final multi-level model took a few days computation time. Here we present the results of the linear structural equation models. We report standard errors clustered at the country level, which are robust. All models were estimated with Stata version 16.

4 Independent and precarious self-employed

Table 1 and 2 present the descriptive statistics by employment situation. We see that the independent self-employed are the most satisfied with their working conditions and have the highest level of subjective well-being. The precarious self-employed score lowest on both variables. It seems that the

difference in job satisfaction between the paid employed and the independent self-employed is larger than the difference in subjective well-being. Further on a formal test will be presented. Men are more often self-employed than women. The mean age of the self-employed is higher than that of the paid employed. Persons with a partner are more often independent self-employed. Immigrants are less often independent self-employed. Persons with children in the household show no differences in their employment situation. The paid employed are the healthiest. They also have the highest level of education.

Table 1

Table 2 contains the means of the job characteristics by employment situation. Almost all of these job characteristics differ by employment situation. The independent self-employed have the most autonomy and the most discretion in their job. They also have the best learning opportunities and they have the most useful job. These results support the idea that the independent self-employed find the most meaning in their job. The hypothesis that the precarious self-employed find the least meaning in their job is not supported. They indeed have less meaning than the independent self-employed, but have more meaning than the paid employed. Especially their amount of autonomy and discretion is higher as expected.

The amount of overtime and work pressure of the independent self-employed is high. They work often at irregular hours and on flexible hours, too. They have a low level of monotony in their work. Their job is also the most volatile. They prefer most often fewer hours and least often more hours of work. The independent self-employed are most satisfied with their income. These results corroborate earlier research about the differences in job characteristics between self-employed and paid-employed.

Table 2

The precarious self-employed score in many cases in between the paid-employed and the independent self-employed, but lowest on learning possibilities. They work most often at irregular hours and have the most monotonous tasks. The paid-employed have the least training and the least overtime, but high work pressure. They have the most regular working hours and also work most often on the same days during the same hours. Their jobs show the lowest volatility and they also are the most satisfied with their working hours.

These descriptives give already support to our first set of hypotheses, which stated that the independent self-employed find more meaning in their job and are most satisfied. We also see that the independent self-employed attain higher levels of subjective well-being.

5 Job satisfaction and subjective well-being

Table 3 contains the results of the structural equation modelling. Next to that we present indirect effects of self-employment via autonomy, discretion, learning and useful on job satisfaction and subjective well-being and we test for differences between all these effects in table 4. I will not discuss the results in detail, but only the results that are relevant in testing the hypotheses.

Table 2 already showed that independent self-employed have a more meaningful job. They have the highest levels of autonomy and discretion. They also have better training opportunities and find their job more useful. This supports hypothesis 1a. In table 3, model 1 we see in column 1 that the independent self-employed are the most satisfied with their job. Model 2 shows that this effect is explained by meaning of the job, because if we enter meaning of the job measured by autonomy, discretion, learning and useful, the effect of independent self-employed becomes small and insignificant (Breen, Karlson, & Holm, 2018). This effect remains small and insignificant once we enter the other job and personal characteristics into the model. In table 4 we see that the indirect effects of independent self-employment mostly go via discretion, usefulness and autonomy. These results support hypotheses 1b and 1c which state that the independent self-employed have more job satisfaction than the paid employed and that this difference can be explained by the difference in meaning.

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Table 3 here

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Table 3 also shows that the independent self-employed are more satisfied with their job than the precarious self-employed. This supports hypothesis 2a. Table 2 shows that the independent self-employed find more meaning in their job than the precarious self-employed, which supports hypothesis 2b. However, in table 3 we see that the difference in job satisfaction is not explained by this difference in meaning. The effect of precarious self-employed is still negative, significant and quite large. So, hypothesis 2c is not supported. The indirect effects of independent self-employed and precarious self-employed via autonomy, discretion and usefulness learning and learning do differ, as shown in table 4. The direct effects and thereby the total effects differ, too.

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Table 4

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On basis of table 2 we do not find support for the first part of hypothesis 3. In general, the precarious self-employed find more meaning in their job than the paid employed. But the paid employed have a higher level of job satisfaction than the precarious self-employed. The negative effect of precarious self-employed on job satisfaction remains quite large and significant, also when we add the other job and personal characteristics into the model. The total indirect effect of precarious self-employment on job satisfaction is positive and quite large. It mainly runs via discretion, usefulness and autonomy. The total effect, i.e. the indirect effect plus direct effect becomes insignificant. In that sense is the difference between the precarious self-employed and the paid employed explained. In the end we find only partial support for hypothesis 3.

Hypothesis 4a states that the differences in job satisfaction between the independent self-employed and the paid employed will be larger than the differences in subjective well-being. The direct effects of independent self-employed on job satisfaction are indeed larger than the direct effects on subjective well-being in models 1 and 2, see table 4. This difference disappears once we include the other job and personal characteristics in our model. We do not find differences in the total indirect effects, via autonomy, usefulness, discretion and learning. The indirect effects via autonomy and discretion on job satisfaction are larger, whereas the indirect effect via usefulness is smaller. We do not find a difference in the combined direct and indirect effects. So, we only find weak support for hypothesis 4a.

Hypothesis 4b states that the differences in job satisfaction between the precarious self-employed and the paid employed are at least as big as their differences in subjective well-being. Table 4 shows that the differences in direct effects of precarious self-employed on job satisfaction and subjective well-being do indeed not differ. We do find differences between the indirect effects. The indirect effects via autonomy and discretion on job satisfaction are a bit larger than the indirect effects on subjective well-being. The indirect effect via usefulness on job satisfaction is smaller than that on subjective well-being. Also, the total indirect is somewhat larger. However, the combined direct and indirect effects do not differ, it seems sizeable but is not significant.

6 Discussion

Our results show that it makes sense to differentiate between independent and precarious self-employed. These are two distinct groups of self-employed with different levels of job satisfaction and subjective well-being. They also derive different amounts of meaning in their job. These results are in line with Binder and Coad (2013), Block et al. (2014), Block and Koellinger (2009) and Oostveen et al. (2013). Although meaning has similar indirect effects for the independent and precarious self-employed, the difference in meaning does not explain the difference in direct effect. Even after controlling for many job and personal characteristics the precarious self-employed do show a lower level of job satisfaction. This remains largely unexplained. In addition to this we can explain the

difference in job satisfaction between independent self-employed and paid employed. This difference is explained by the difference of meaning in their jobs. This supports the ideas of Cassar and Meier (2018) and also corroborates the empirical findings of Benz and Frey (2008b) and Schneck (2014). Whereas they introduce the concept of procedural utility, which mainly runs via autonomy, Cassar and Meier (2018) use the concept of meaning, which draws heavily on the self-determination theory of Ryan and Deci. We are inclined to support the model by Cassar and Meier, because we find a large indirect via usefulness and because it is a broader theory, which can be applied and tested in many more circumstances.

Although the concept of meaning explains the difference in job satisfaction between independent self-employed and paid employed, it does not fully explain the situation of the precarious self-employed. The precarious self-employed must have some characteristics that we do not capture but causes their low level of job satisfaction. Although we control for quite a lot of characteristics, the differences between on the one hand precarious self-employed and on the other hand the independent self-employed and the paid employed remain quite large. The precarious self-employed have the most monotonous jobs and are the least satisfied with their working hours. They want to work more hours, may be to make it easier to make ends meet. But we control for these characteristics. Another possibility would be differences in work-life balance a factor we did not control for. May be their work-life balance is worse than that of independent self-employed, because their levels of autonomy and discretion are lower. This is a topic for future research.

There is a second possibility why we are not able to explain the differences between the precarious self-employed and the other two groups. The precarious self-employed are not a random sample from the population. Although we control for certain personal characteristics, we do not control for possible sample-selectivity. To control for sample-selectivity we must be able to predict who becomes independent self-employed, who paid employed and who becomes precarious self-employed. Although we tried, we were not able to do so. Sample-selectivity effects were not significant, mainly because we were not able to make a well enough prediction. From the work of Block et al. (2015), Binder and Coad (2013) we know that the precarious self-employed are a very specific group, because they are not able to obtain a normal job in paid employment, although they wish so. Independent self-employed could, but they do not want to. So, we have to discover in future research what makes these precarious self-employed so specific.

Next to job satisfaction we also analysed subjective well-being. We expected that the differences in subjective well-being between the independent self-employed and the paid employed would be smaller due to possible effects of work-life balance. We indeed found that the differences in subjective well-being between independent self-employed and paid employed were smaller than their differences in job satisfaction. The differences in direct effects are explained by differences in meaning. The effect via autonomy and discretion are larger on job satisfaction, whereas the indirect effect via usefulness is larger on subjective well-being. The remaining differences might be explained

by differences work-life balance as suggested by Parker (2009), Binder and Coad (2016) and Kelliher et al. (2019). This is a result of the paradox of self-employment. Self-employed have more discretion and autonomy, but on the other hand make long work hours and feel the need to be always available. Because their work is their livelihood they cannot miss-out an important new client or assignment. They need to be available to satisfy the needs of their customers. This draws heavily on their work-life balance, despite their high level of autonomy and discretion. So future research could be directed to the effects of work-life balance on subjective well-being. Is it indeed so that the work-life balance of the independent self-employed is worse than that of the paid employed and does this explain the differences in effects on job satisfaction and subjective well-being?

Although we cannot explain the differences in job satisfaction between the precarious self-employed and the paid employed, we can do so for subjective well-being. The direct effect of precarious self-employed has become insignificant. This tells us that subjective well-being is somewhat different than job satisfaction. It encompasses more domains of life. It is not restricted to working life, as job satisfaction is, but also includes family life, leisure time, social life and other aspects of life. This supports the idea to investigate if work-life balance can explain the remaining differences.

Of course, this research also has shortcomings. First of all, all weaknesses of cross-sectional research apply. We are unable to test for causal effects, as we only have cross-sectional correlations. So, in the future panel-studies might become available to repeat (part of) this research. As already, mentioned we were not able to test for sample selection effects, which might explain the unexplained effect of precarious self-employment on job satisfaction.

Furthermore, we propose a test between the procedural utility hypothesis versus meaning of the job. Meaning of the job would predict a mediation effect of meaning, independent self-employed have more job satisfaction because they derive more meaning from their job, whereas the procedural utility hypothesis would suggest that self-employed find autonomy more important than the paid employed. So, there should be a difference in effect of autonomy, an interaction between self-employment and autonomy on job satisfaction. We find no support for the latter (not shown) but only support for the former.

7 Summary and conclusions

We started this paper with the question if the differences in job satisfaction and subjective well-being between on the one hand independent self-employed and on the other hand the paid-employed and precarious self-employed can be explained by meaning of the job. The short answer to this question is: yes. We derived this answer by testing a series of hypotheses on data from the 6th European Working Conditions Survey.

We hypothesized that the independent self-employed derived most meaning from their job, followed by the paid employed with the precarious self-employed in third place. We found indeed that the independent self-employed had most meaning but the precarious self-employed came in second place due to a relatively high amount of autonomy and discretion. We did find, according to our hypotheses that the independent self-employed have the highest level of job satisfaction and subjective well-being and the precarious self-employed the lowest. And we also found that meaning of the job explained the differences in job satisfaction and subjective well-being between the independent self-employed and the paid employed, but not the low levels of satisfaction of the precarious self-employed. We also found that the precarious self-employed have the lowest level of job satisfaction, but that the meaning of their job could not explain this low level. On average they have the same or even more meaning in their job than paid employed. This might be due to selectivity bias, for which we could not control, or differences in work-life balance.

Our final hypothesis read that, the difference in subjective well-being between the independent self-employed and paid employed is smaller than their difference in job satisfaction and that the differences in subjective well-being between the precarious self-employed and the paid employed is the same as their difference in job satisfaction. This hypothesis is supported by our results. The difference in subjective well-being between the independent self-employed and the paid employed is smaller than their difference in job satisfaction, even if we control for meaning of the job only. Once we control for other job and personal characteristics this difference disappears.

We expected this difference to be smaller because of the effect of a worse work-life balance of the independent self-employed. Although that the independent self-employed have more control over their working hours than the paid-employed, they also work longer hours. They express more often that they would like to work fewer hours and less often that they would like to increase their working hours. This worsens their work-life balance. Due to lower control over working hours for the precarious self-employed we did not expect to find smaller differences between the paid-employed and the precarious self-employed, and we didn't. We did not test directly for the effect of work-life balance on subjective well-being, but given our results and earlier findings by Binder and Coad (2016) and Parker (2009) this is the most plausible explanation. Of course, this is a point for future research.

Given the results of this study governments need to be careful with promoting self-employment too much. Self-employment is not the panacea for say all unemployed. If someone becomes self-employed because he has no alternatives than this person might still remain in a precarious position, with negative effects on job satisfaction and subjective well-being. Their jobs do have worse job characteristics and probably a worse work-life balance too. But this is a research question that is still open and needs further attention.

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Table 1. Descriptives of subjective well-being, job satisfaction and personal characteristics by employemny category

Variable	Paid Employed		Independent Self-employed		Precarious Self-employed	
	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
Subjective well-being	4.46	1.01	4.54	0.96	4.35	1.10
Job satisfaction	3.10	0.70	3.24	0.66	2.88	0.76
Women	0.52	0.50	0.37	0.48	0.44	0.50
Partner	0.65	0.48	0.71	0.45	0.67	0.47
Children in household	0.30	0.46	0.31	0.46	0.27	0.45
Immigrant	0.18	0.38	0.14	0.35	0.15	0.36
Age	42.09	10.46	44.79	9.21	44.29	9.97
Subjective health	4.07	0.74	4.07	0.75	3.89	0.80
Education	4.96	1.75	4.95	1.79	4.56	1.89
N	15202		1919		502	

All means differ significantly between paid employed, independent and precarious self-employed except children at home

Source: EWCS 2015 (EU15 sample), our calculations

Table 2. Descriptives of job characteristics by employmeny category

Variable	Paid Employed		Independent Self-employed		Precarious Self-employed	
	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
Autonomy	2.78	0.99	3.20	0.88	3.02	0.96
Discretion	3.03	0.97	3.84	0.84	3.55	0.91
Learning	0.76	0.43	0.79	0.41	0.69	0.46
Useful	4.22	0.62	4.40	0.61	4.26	0.75
Overtime	1.75	1.04	2.50	1.23	2.29	1.24
Workpressure	3.76	1.84	3.65	1.80	3.66	1.89
Training	-0.18	1.04	0.32	0.77	0.43	0.69
Irregular hours	0.68	0.94	1.38	1.16	1.38	1.23
Flexible hours	-0.05	0.93	0.64	1.04	0.66	1.04
Monotony	0.47	0.50	0.45	0.50	0.55	0.50
Dirty	1.72	0.89	1.75	0.92	1.77	0.94
Volatility	1.40	0.44	1.49	0.50	1.48	0.49
Less hours	0.30	0.46	0.40	0.49	0.39	0.49
More hours	0.14	0.35	0.11	0.31	0.19	0.39
Subjective income	3.99	1.27	4.01	1.22	3.31	1.38
N	15202		1919		502	

All means differ significantly between paid employed, independent and precarious self-employed except dirty

Source: EWCS 2015 (EU15 sample), our calculations

Table 3. SEM of job satisfaction and subjective well-being on job and personal characteristics

	Model 1		Model 2		Model 3		Model 4	
	b	se	b	se	b	se	b	se
Job satisfaction								
Independent self-employed	0.165*	(0.040)	-0.035	(0.047)	0.037	(0.043)	0.043	(0.042)
Precarious self-employed	-0.180*	(0.060)	-0.323*	(0.072)	-0.214*	(0.056)	-0.159*	(0.052)
Autonomy			0.115*	(0.008)	0.070*	(0.008)	0.062*	(0.008)
Discretion			0.181*	(0.010)	0.123*	(0.009)	0.111*	(0.011)
Learning			0.035*	(0.016)	0.050*	(0.022)	0.037	(0.022)
Useful			0.310*	(0.037)	0.263*	(0.032)	0.237*	(0.032)
Constant	3.305*	(0.004)	1.305*	(0.139)	1.987*	(0.129)	1.277*	(0.094)
Job characteristics	No		No		Yes		Yes	
Personal Characteristics	No		No		No		Yes	
var(e.stfj)	0.473*	(0.017)	0.385*	(0.015)	0.365*	(0.012)	0.346*	(0.013)
R2	0.034		0.214		0.254		0.293	
Subjective well-being								
Independent self-employed	0.085*	(0.041)	-0.127*	(0.049)	-0.008	(0.039)	-0.006	(0.034)
Precarious self-employed	-0.137*	(0.042)	-0.293*	(0.044)	-0.122*	(0.039)	-0.024	(0.044)
Autonomy			0.108*	(0.015)	0.049*	(0.012)	0.027*	(0.010)
Discretion			0.190*	(0.009)	0.106*	(0.008)	0.081*	(0.008)
Learning			-0.024	(0.035)	0.002	(0.038)	-0.013	(0.038)
Useful			0.504*	(0.032)	0.439*	(0.025)	0.377*	(0.023)
Constant	4.596*	(0.003)	1.969*	(0.128)	2.738*	(0.124)	1.121*	(0.151)
Job characteristics	No		No		Yes		Yes	
Personal Characteristics	No		No		No		Yes	
var(e.swb)	0.973*	(0.048)	0.835*	(0.043)	0.808*	(0.043)	0.703*	(0.040)
R2	0.033		0.171		0.198		0.302	
N	17623		17623		17623		17623	
-ll	20216.03		88381.43		276165.06		456329.90	
df m	6		14		14		14	

Source: EWCS 2015 (EU15 sample), our calculations. All models include fixed country effects.

Table 4 Indirect effects of Independent and precarious self-employed on job satisfaction and subjective well-being

	Job satisfaction		Subjective well-being		Difference	
	Coef	se	Coef	se	Coef	se
Independent self-employed						
Autonomy	0.032*	0.005	0.014*	0.005	0.018*	0.004
Discretion	0.089*	0.009	0.065*	0.008	0.024*	0.010
Learning	0.003	0.002	-0.001	0.003	0.005	0.003
Useful	0.059*	0.011	0.094*	0.011	0.035*	0.004
Total indirect	0.183*	0.009	0.171*	0.012	0.012	0.011
Direct plus indirect effect	0.226*	0.044	0.165*	0.033	0.061	0.033
Precarious self-employed						
Autonomy	0.028*	0.006	0.012*	0.005	0.016*	0.004
Discretion	0.077*	0.009	0.056*	0.008	0.021*	0.008
Learning	0.002	0.002	-0.001	0.002	0.003	0.002
Useful	0.034*	0.010	0.054*	0.013	0.020*	0.005
Total indirect	0.141*	0.014	0.121*	0.016	0.020*	0.008
Direct plus indirect effect	-0.018	0.055	0.097*	0.044	-0.115	0.072
Differences in direct effects on job satisfaction and subjective well-being						
	Independent		Precarious			
Model 1	0.080*	0.029	-0.043	0.071		
Model 2	0.076*	0.026	-0.061	0.075		
Model 3	0.046	0.032	-0.092	0.073		
Model 4	0.049	0.033	-0.135	0.075		

Source: EWCS 2015 (EU15 sample), our calculations

Appendix A. Coding of the variables

Dependent variables

Job satisfaction: ‘On the whole, are you satisfied etc. with working conditions in your main paid job?’, four point scale

Subjective well-being measured by five items: ‘I have felt a cheerful and in good spirits’, ‘I have felt calm and relaxed’, ‘I have felt active and vigorous’, ‘I woke up feeling fresh and rested’, ‘My daily life has been filled with things that interest me’, six point scale. Reliability .88

Employment categories

Paid employee: Are you being paid a salary or a wage by an employer (yes)

Independent self-employed: I became self-employed mainly through own personal preferences

Precarious self-employed: When you became self-employed I had no alternatives for work

Demographics

Gender: men 0, women 1

Partner: no partner 0, spouse/partner 1

Children younger than 13 years of age in the household: no 0, yes 1.

Immigrant: ‘Were you born in this country?’ no 1, yes 0.

Age: age between twenty and sixty years of age

Subjective health: How is your health in general, five point scale

Education: the international Scale of Education (ISCED), six point scale

Subjective income: ‘Thinking about your income, is your household able to make ends meet?’, six point scale

Job characteristics:

Autonomy: Can you take of an hour or two off during working hours for personal matters easily or not, four point scale

Discretion: six items: ‘You are consulted before objective are set for your work’, ‘You are involved in improving the work organisation or work processes’, ‘You have a say in the choice of your work colleagues’, ‘You can take a break when you wish’, ‘You are able to apply your own ideas in your work’, ‘You can influence decisions that are important for your work’. Five point scale, alpha .78

Learning: job involves learning new things, no 0, yes, 1

Training: ‘Scale using multiple classification analyses, based on: Training paid for or provided by your employer (yes, or no)’, ‘Training paid by yourself (yes or no)’, ‘Other training (yes or no)’.

Overtime: ‘how often have you worked in your free time to meet work demands?’, five point scale

Work pressure: Does your job involve; 1 working at very high speed; 2. Working to tight deadlines', seven point scale. Reliability .80.

Useful: 'You have enough time to get the job done', 'Your job gives you the feeling of work well done', 'You have the feeling of doing useful work', 'You know what is expected of you at work', five point scale, reliability is .70.

Irregular working hours: 'How many times a month do you work' 1 at night, 2 on Sundays, 2 on Saturdays' a five point scale. reliability of this scale is .65.

Flexible working hours using multiple classification analyses: 'Do you work 1. The same number of hours every day, 2 the same number of days every week, 3 the same number of hours every week, 4 fixed starting and finishing times' on a yes/no scale.

Monotonous tasks: 'does your main job involve monotonous tasks', yes 1, no 0.

Dirty based on nine items: are you exposed to; 1. Vibrations, 2. Noise, 3. High temperatures, 4. Low temperatures, 5. Smoke and fumes, 6. Solvents and thinners, 7. Chemical products, 8. Tobacco smoke, 9. Infectious materials, seven point scale. Reliability .83

Volatility of the job: Has your job changed in any of the following ways during the last 12 months? 1. Number of hours per week, 2. Salary, 3. The amount of influence, 4. Tasks and duties, five point scale. reliability of this scale is .70.

More hours: dummy variable if preferred hours are larger than actual hours of work, yes 1, no 0

Less hours: dummy variable if preferred hours are smaller than actual hours, yes 1, no 0



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