
Modes of Employment and Identity



Clemens Hetschko and Ronnie Schöb

In diesem Beitrag widmen wir uns dem Thema Arbeit aus Sicht der ökonomischen Wohlbefindensforschung. Wir dokumentieren anhand zahlreicher Studien, wie der Erwerbsstatus und das Arbeitsleben das subjektive Wohlbefinden beeinflussen. Im Gegensatz zur traditionellen Arbeitszufriedenheitsforschung basieren diese Studien zumeist auf umfassenden Längsschnittdaten repräsentativer Daten und widmen sich Indikatoren des Wohlbefindens, die nicht spezifisch auf das Berufsleben abzielen. Im Ergebnis stellt sich heraus, dass insbesondere das Identitätsempfinden von Arbeitnehmern ein wichtiger Kanal ist, durch den Erwerbsstatus und Arbeitsplatzmerkmale das Wohlbefinden beeinflussen.



We review the literature on the economics of happiness with respect to one of the most important areas of life: work. In particular, we document how different modes of employment, such as unemployment, self-employment or part-time employment affect subjective well-being. In contrast to traditional management research, we mostly rely on studies that use large-scale panel data and measures of happiness other than job satisfaction. This allows us to reveal the important part identity seems to play in the life of workers.

Subjektives Wohlbefinden, Lebenszufriedenheit, Identität, Arbeitslosigkeit, irreguläre Beschäftigung, Arbeitszeit, Selbstständigkeit, Ruhestand

Subjective well-being, life satisfaction, identity, unemployment, irregular employment, working time, self-employment, retirement

1. Introduction

Starting with Easterlin's pioneering research of the relationship between income and subjective well-being, economists have commenced to use subjective well-being data as an important empirical means to measure welfare. The economics of happiness has tested, refuted and confirmed a wide range of economic models, developed new empirical tools for the purpose of cost-benefit analysis and derived important policy conclusions.¹ Moreover, studies of subjective well-being constitute a prime example for the usefulness and limitations of survey data in economics and open the interdisciplinary discourse with other social sciences. In this article, we show how happiness research has informed labour economics as well as personnel economics. Specifically, we question how the current mode of employment, such as unemployment, part-time employment or self-employment, affects

1 For reviews see, e.g., Frey and Stutzer (2002), Frey (2008), Weimann, Knabe, and Schöb (2015) as well as Frey (in this issue).

one's subjective well-being. Based on previous literature, we thereby aim at identifying determinants of worker well-being beyond the role of income and show how a concept of utility, augmented by an identity component, may explain a wide range of empirical findings.

One focus of ours is on deriving implications for employees and employers. We hereby have to acknowledge that management research has revealed determinants of job satisfaction as one indicator of employee well-being long before economists discovered the potential of happiness research for their purposes (see, e.g., Spector 1997, Judge et al. 2001, Wegge et al. 2007, Fisher 2010). It is therefore not worthwhile to re-examine issues that job satisfaction research has already conclusively resolved. Instead, we shed light on recent findings that complement job satisfaction research from an economics perspective by considering different measures of subjective well-being such as life satisfaction or affect, by using large-scale representative panel data and by focusing strongly on issues related to unemployment such as insecure employment (see also Frey in this issue). Even here, we had to be selective and neglected important parts of related literature, such as the one on the role that reference income within and outside the firm plays for worker well-being (e.g. Clark, Kristensen, and Westergård-Nielsen 2009a, 2009b).

We start by reviewing the literature on unemployment and well-being while introducing the concept of identity-augmented utility (Section 2). Afterwards, we derive implications from the study of insecure and subsidized employment as well as from the role of working time in subjective well-being (Section 3). Then we turn to autonomy as an attribute of employment (Section 4). We finally document how the circumstances of retirement affect life satisfaction (Section 5) and conclude (Section 6).

2. In work or out of work: the two principle modes of employment

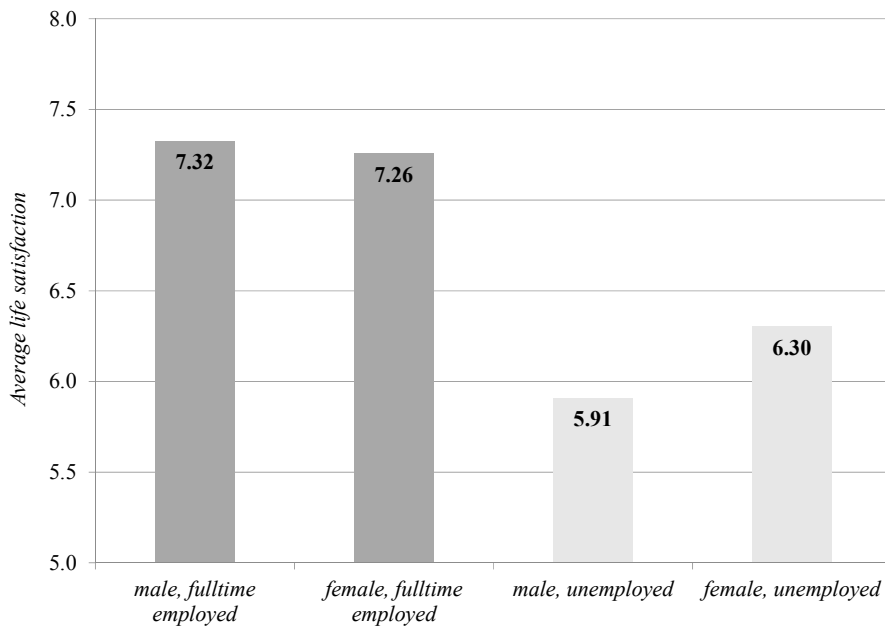
2.1 Unemployment and life satisfaction

For as long as industrial societies have evolved and grown, they have been subjected to economic crises, causing misery for millions and millions of people losing their jobs. It is this individual shock, in combination with the inability to regain employment, that enables social scientists from different disciplines to reveal the crucial role that work plays in human life. The extraordinary suffering of the unemployed, as well as its reasons, allow us to document how and how much work affects human well-being. Figure 1 documents, exemplarily for Germany, that employed people are much more satisfied with their lives than unemployed people. While there is no difference between employed men and women, unemployed men seem to suffer more than unemployed women (e.g. Clark and Oswald 1994, Gerlach and Stephan 1996).

Figure 1 does not show a causal relation between employment status and well-being. People who are generally less satisfied due to their personality or bad health may also bear a higher risk of becoming unemployed. Also, unhappy people may have a tendency towards not wanting to work. Winkelmann and Winkelmann (1998) partly resolve these issues as they control for individual fixed effects to eliminate any selection into unemployment originating from time-invariant characteristics such as stable personality traits. They nevertheless find a substantially negative effect of unemployment on life satisfaction. Clark et al. (2008) use the same empirical strategy to show how strongly unemployment affects the same people's life satisfaction as compared to other life events. They find

for men that the magnitude of the negative life satisfaction effect of losing work is twice as high as the positive impact of marriage and three times higher than the benefit from fathering a child. Though less pronounced, these differences also show up in female life satisfaction. Only the death of a spouse is reported to reduce both genders' well-being stronger than unemployment.

Figure 1. *Life satisfaction and employment status in Germany (2014)*



Source. German Socio-Economic Panel (SOEP 2014), weighted results.

Note. Life satisfaction measured on an 11-point scale from 0 to 10.

Analysing the change in well-being of people who become unemployed due to a plant closure, i.e. a reason exogenous to their individual characteristics, Kassenboehmer and Haisken-DeNew (2009) circumvent the time-varying individual heterogeneity that might simultaneously explain low well-being and losing work. They estimate a similarly negative impact of job loss in the course of plant closures on life satisfaction as the studies reported before.

Unemployment may hurt initially, but will the negative impact prevail when unemployment persists? Many people adapt well to all kinds of life events, such as the death of a partner. That, apparently, does not hold true for unemployment, after which well-being remains considerably lower compared to the time before the job loss (Clark et al. 2008). Lucas et al. (2004) argue that unemployment even reduces the individually predisposed basic level of life satisfaction one gradually returns to after incisive life events. A logical follow-up question then is whether at least the taking-up of a new job can cure the negative effects of unemployment. Although life satisfaction increases significantly after reemployment, it does not reach the level from before unemployment, at least not for men (Clark, Georgellis, and Sanfey 2001, Knabe and Rätzel 2011a). Repeated unemploy-

ment experience worsens the situation. Luhmann and Eid (2009) show that each new unemployment spell reduces the level of life satisfaction of workers further, even while they are (re-)employed. Psychologists call this phenomenon ‘sensitization’: The more often we experience an event, the more intensely it affects us.

But why does unemployment have such a strong negative impact on the cognitive well-being? One natural cause could be the loss of income which is accompanied by a loss of consumption. Even when allowing for intertemporal consumption smoothing and controlling for income reported in later periods, Knabe and Rätzl (2011b) report substantial losses in well-being that cannot be attributed to the actual loss in income. They estimate that the cost of unemployment for men in Germany, which is not explained by the actual and future income loss, roughly equals 80 percent and, for women, 55 percent of former income.

Often, these additional costs are labelled ‘non-monetary’ or ‘psychological’ costs. Social psychologists were the pioneers in the investigation of these non-monetary costs. In the 1930’s already, Marie Jahoda, Paul Lazarsfeld and their fellow researchers identified non-monetary aspects of working in the course of their groundbreaking field study “Die Arbeitslosen von Marienthal” (“The Unemployed of Marienthal”). They analyzed the effects of a textile plant closure on the laid-off workers and other citizens from the town of Marienthal near Vienna in the Thirties of the last century and concluded that

“Employment imposes a time structure on the waking day, implies regularly shared experiences and contacts with people outside the nuclear family, links individuals to goals and purposes that transcend their own, enforces activity, and defines aspects of personal status and identity” (Jahoda 1981, S. 188, slightly shortened).

2.2 Identity utility and the well-being cost of unemployment: theoretical considerations

To date, economic research on the non-monetary factors that make unemployment so harmful particularly focusses on the last aspect emphasized by Marie Jahoda, i.e. the loss of status and identity caused by the violation of the social norm of working. Schöb (2013) summarizes this part of the literature and attributes a large share of the non-monetary well-being costs of unemployment to the loss of social identity. In economic terms, the unemployed lose identity utility.

The identity utility concept by Akerlof and Kranton (2000) is based on the socio-psychological theories of social identity and self-categorization, which are particularly associated with the work by Henri Tajfel and John Turner (see e.g. Tajfel and Turner 1986). People form an ideal self-concept from different identities they try to adopt. One’s self-concept is partly individualistic, but also depends on social solidarity and belonging. According to social categorization theory by Turner (1985), people do not form groups for the satisfaction of mutual needs, but because they define themselves in terms of membership of a shared social category. A shared social identity emerges on the basis of cognitive criteria, such as shared fate, situations, or attributes, which can be either positive or negative (see Turner and Reynolds 2010, p. 20). Belonging to a social group requires the fulfillment of the shared norms of this group, i.e. conforming to a certain group behaviour.

In the world of work, people who have finished their education and are below retirement age normally consider themselves as members of a social grouping of ‘working-age people’. While employed, they rarely consciously perceive themselves as of ‘working-age’,

even though they share values and goals similar to members of this social group. Thus, the belonging to the group of working-age people barely becomes salient. While being employed, the perceived identity is predominantly built on personal characteristics and achievements. Concerning employment, it is hence not the fact of being employed, but rather the individual's job attributes and job performance that constitute one's identity. Being laid off, however, suddenly makes the values and goals of the working-age group very salient, causing the laid-off individual to feel that he has shifted from the subgroup 'employed' to the subgroup of 'unemployed'. The perception that one deviates from major norms of the group of working-age people, i.e. being employed and able to provide for oneself, dominates the social identity component. As a result, this component influences one's self-conceived personal identity to a higher extent than before job loss (see e.g. Turner and Reynolds 2010, p. 21).

Akerlof and Kranton (2000) augment the standard utility function to allow for social categorization and the minimization of the utility loss from deviating from social norms. They consider an individual's (j) utility function consisting of a standard part $V_j(a_j, a_{-j})$, which results from one's own actions (a_j , e.g. consumption of private goods) and the actions of others (a_{-j} , e.g. consumption of public goods, externalities) plus an identity utility component I_j , which stands for the set of social categories (c_j) an individual has chosen. Different categories generate different levels of status and thus utility. In many dimensions, people can choose to which social categories they want to belong to, for example by choosing the country to live in, the firm to work for or the way of praying to god. But choosing the social category can also be very costly. When changing categories becomes too costly, so that it is optimal not to change one's social category, one has to adhere to the group's rules, over which the individual has hardly any (here assumedly none) control, which in turn also affect utility (P , 'prescriptions'). Deviating from the rules results in an identity utility loss. The success of the self-categorization, i.e. whether one actually feels as a member of the group or is accepted as such, depends on the individual ability (ε_j) to meet these group norms. ε_j thus reflects the deviation of the actual self from the ideal self. The identity utility component is also influenced by one's own actions and that of others. In sum, the utility function, if additively separable, can be written as

$$U_j = V_j(a_j, a_{-j}) + I_j(a_j, a_{-j}, c_j, P, \varepsilon_j).$$

By means of this utility function, we can now illustrate the cost of unemployment, i.e. $\Delta U_{j, \text{employed} \rightarrow \text{unemployed}}$. Standard utility reduces as less income is available for the consumption of goods. Jahoda's conclusions make clear that the loss of activity as well as the decline of social interactions outside the family might further enlarge this loss of standard utility. At the same time, however, people may also benefit from job loss as they gain leisure time, which microeconomic theory traditionally considers as the main reason why working comes at a price.

Regarding identity utility, unemployed people, during their working age, obviously do not conform to the norm to work. This reduces identity utility compared to periods of employment. When social identity becomes unsatisfactory, people will strive to change their situation, but unemployed people may be very restricted in their choices and it may be impossible, or at least very difficult, for them to divest themselves of the unsatisfactory, underprivileged, or stigmatized group membership (Tajfel and Turner 1986, p. 9). The result-

ing identity utility loss thus theoretically explains part of the loss of well-being. Note that the broadness of the identity utility concept may also serve to explain further effects of unemployment and their impact on well-being, such as losing self-esteem, as one moves away from one's ideal self, or feeling less in control of one's own life, since one cannot easily change this deviation from the ideal self.

Schöb (2013) provides some examples that show how the loss of identity utility may be subject to individual differences. Parents, or, in the traditional family image, particularly women, may fall back on the traditional role of keeping house when they become unemployed. In the process, they can still contribute to the welfare of the family or society and are able to at least partly meet the norms of their social category. That could explain why women suffer considerably less from unemployment than men. Young people, who are at the start of their career, may choose future norm compliance over current norm compliance and be willing to accept longer periods of job search in order to get a better paid or more secure job with better career prospects. This is likely to reduce the identity loss of the current job-seeking unemployment.

2.3 Unemployment and standard utility

To separate the effects of unemployment on standard utility from those on identity utility, we first build on the idea of affective well-being and cognitive well-being as two different concepts of quality of life (Knabe et al. 2010, Knabe, Schöb, and Weimann 2016, 2017). Affective well-being covers the positive or negative feelings and moods humans experience over time. It mostly consists of unconscious, spontaneous responses to events ('affect'). In contrast, cognitive well-being represents the current self-evaluation of one's life on the whole. Here, people need to make themselves conscious of their own achievements to date as well as of their future prospects, which obviously requires complex cognitive processes. Whether or not one's life corresponds to one's ideal life should thus mainly affect cognitive well-being, as it may rather play a part in the evaluation of one's current achievements than influencing unconscious emotional responses in daily life. In contrast, other potential consequences of unemployment may show up in affective well-being too, for example through losses of social interactions and time structure, fewer consumption or a gain of free time. Hence, affective well-being can be assumed to empirically measure important parts of standard utility, while being unaffected from identity utility.

Using self-collected cross-sectional data of employees and long-term unemployed people, Knabe et al. (2010) study the effects of unemployment on life satisfaction – as an overall measure of well-being, covering both cognitive and affective components – and on measures of affective well-being sampled using the 'day reconstruction method'. This technique requires subjects to report their allocation of time over the course of the previous day as well as the extent to which they experienced a variety of positive and negative emotions during each episode. To calculate the 'net affect' as an aggregate number of affective well-being, the differences between positive and negative emotions during each episode are computed, weighted by the share of daily waking time spent on that episode, and finally added up. Alternatively, one can calculate the share of time spent on episodes during which the strongest emotion was a negative one ('U-index', *U* for *unpleasant*) or simply ask people how satisfied they felt in each episode ('episode satisfaction').

Table 1. Life satisfaction and affective well-being by labour market status

	Life Satisfaction	Net Affect	U-Index	Episode Satisfaction
Employed	7.074	4.404	0.142	7.282
Unemployed	4.385	4.572	0.153	7.181
Difference between unemployed and employed	-2.689 (0.000)	+0.168 (0.371)	+0.011 (0.397)	-0.101 (0.334)

Source. Table 4 from Knabe et al. (2010), p. 878.

Note. Life satisfaction and episode satisfaction measured on scales from 0 to 10. The net affect can range from -10 to +10, the U-index from 0 to 1. P-values in parentheses.

As Table 1 displays, the study replicates the standard result from previous research according to which the unemployed rate their life satisfaction much lower than employees. At the same time, however, all three alternative measures of affective well-being do not differ significantly between the two groups. While the unemployed report fewer positive and more negative emotions than employees during the same activities, they are able to spend more time on pleasurable free time activities. In contrast, the time allocated to working, as well as to work-related activities such as commuting or job search, are experienced as the least emotionally rewarding. These results have largely been confirmed by Krueger and Mueller (2012), von Scheve, Esche, and Schupp (2017) as well as Bryson and MacKerron (2017). Apparently, the non-pecuniary costs of unemployment rather relate to the cognitive evaluation of life than to daily experience, which could imply that identity utility is far more concerned than standard utility.

A second approach to isolating the effect of unemployment on standard utility from its impact on identity utility is the direct measurement of single components of standard utility, i.e. V_j is separated further. There is obviously a loss of consumption opportunities, which, however, can appear fairly small depending on the national welfare state as well as on the availability of other sources of income existing in the same household. Kunze and Suppa (2017) moreover find that the impact of unemployment on social participation is not clear. The time released by job loss enables unemployed people to focus more on private social activities, while they seem to appear less in the public. Chadi and Hetschko (2017) empirically separate utility into measures of satisfaction with different domains of life, focusing on the roles of time and income. They show that the gain of time is rather invested in household production than hobbies. Moreover, becoming unemployed increases satisfaction with free time and family life. The loss of work may pay off in particular in the latter area of life, as it obviously resolves work-family conflicts. In addition, Chadi and Hetschko (2017) find that job loss reduces satisfaction with income to a higher extent than people actually lose income. They argue that the effect originates from a loss in both consumption (and thus standard utility) and identity utility, as the source of income may reflect compliance with the norm to work. In working age, people are required to provide for themselves, which is compliable by earning labour income. In contrast, the requirement is not fulfilled when people are unemployed and rely on transfers from other members of the same household or the same society. This consideration leads us to the empirical examination of unemployment and identity utility.

2.4 Unemployment and identity utility

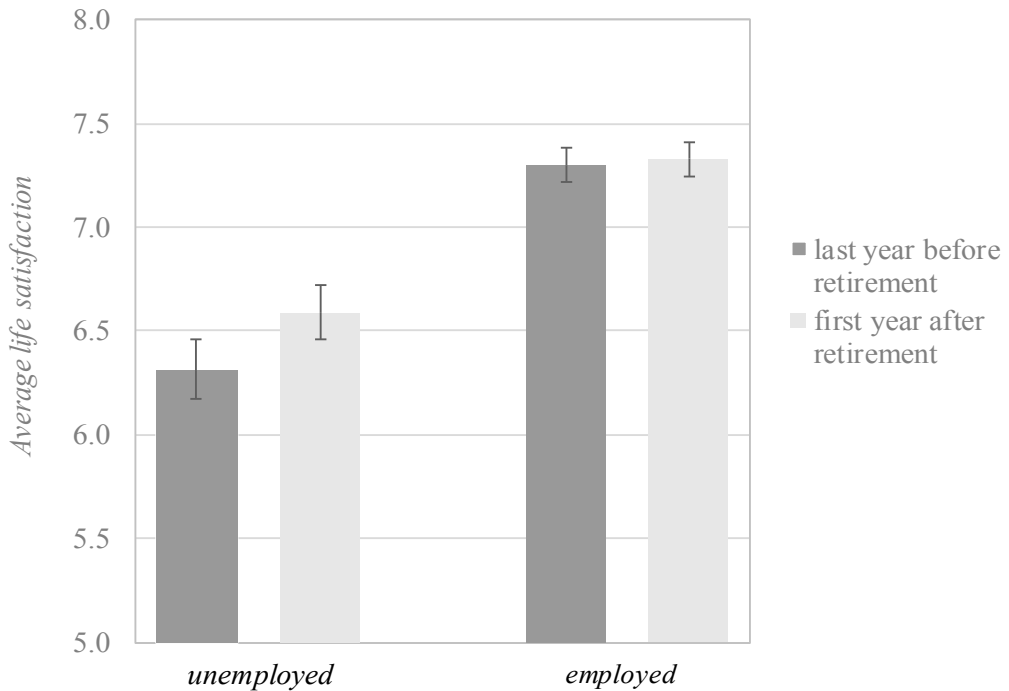
Social norms depend on context. Kelvin and Jarrett (1985), for instance, report that in periods of high unemployment, when more and more ‘ordinary’ people are affected, stigmatization of unemployed people rarely occurs. The strength of the social norm to work could thus depend on the degree to which other members of the group are able to meet this norm. If the norm is weak, one’s own non-compliance may only slightly reduce identity utility. Accordingly, unemployed men benefit when their partner or other people from the same region are unemployed as well (Clark 2003, Powdthavee 2007).²

Stutzer and Lalive (2004) interpret the regional results of a referendum on the amount of unemployment benefits in Switzerland as a measure of the norm’s regional intensity and find that the stronger the norm to work, the more the unemployed suffer and search for a new job. Furthermore, being jobless seems to harm the well-being of protestants in particular, as a strong work norm is part of their religious identity (Van Hoorn and Maseland 2013).

When people retire, they switch from the social grouping working-age to the group of retirees for whom the social norm to work is no longer valid, as pensioners are not expected to work. Hetschko, Knabe, and Schöb (2014) test whether such a change of social categories affects life satisfaction when unemployed people who violate the social norm of the working-age group retire from one year to the next. While the transition modifies the norms to be fulfilled, their daily lives, routines, social contacts and future income prospects are not systematically altered by leaving the workforce: At the reference point in time, i.e. less than one year before retirement, they were unemployed and thus already out of work, hardly searched for a job and could anticipate the timing of retirement as well as their prospective pension. As Figure 2 illustrates, the life satisfaction of formerly unemployed people improves substantially upon retirement. Since former employees continue to report the same well-being level on average, the positive change in unemployed workers is an effect of leaving the status of unemployment and not an effect of entering retirement, from which employees would benefit too. This may in fact imply that switching from working age to retirement age makes meeting their ideal selves easier for formerly unemployed people, restoring their identity utility. In turn, the loss of identity utility probably reduced well-being when they became unemployed and is thus an important component of the non-pecuniary cost of job loss.

2 In contrast, unemployed males’ *affective* well-being reduces when their partners are unemployed, too (Knabe, Schöb, and Weimann 2016). Hence, an unemployed partner may cause a loss of standard utility. Referring to the empirical strategy of Clark (2003), Chadi (2014) argues that recipients of welfare benefits do not comply with the norm to be able to provide for oneself and shows that the regional rate of welfare recipients increases the individual satisfaction of welfare recipients.

Figure 2. Retirement and life satisfaction



Source. Hetschko, Knabe, and Schöb (2014); calculations based on data of the German Socio-Economic Panel (SOEP 1984-2010).

Note. Life satisfaction measured on an 11-point scale from 0 to 10. Whiskers denote 95% confidence intervals.

3. Implications

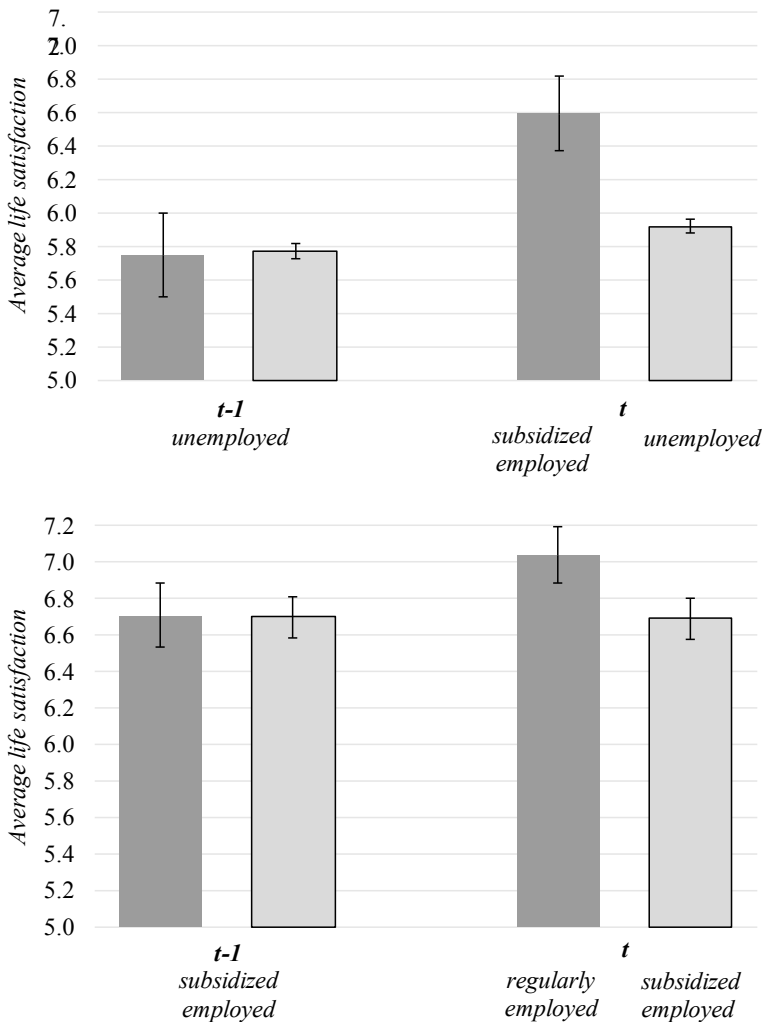
Well-being research concerning modes of employment is highly relevant not only for social policy, but also for firm policies. This is mainly because unhappy workers are also unproductive staff members (Oswald, Proto, and SgROI 2015). The determinants of employee well-being may therefore affect the success of the company, too, and are hence of great interest for managers. As we will show in the following, research on the determinants of employee well-being provides useful new insights, when implications from the study of unemployment and happiness are considered.

3.1 Insecure and ‘irregular’ employment

Since people suffer a great deal from unemployment, they also strongly fear job loss while employed, and therefore prefer secure jobs to insecure jobs (e.g. Sverke, Hellgren, and Näswall 2002, Luechinger, Meier, and Stutzer 2010, Helliwell and Huang 2014). One implication for firms is that mass layoffs, for instance, may not only decrease the well-being and mental health of people who are made redundant, but also that of workers who survive in the firm, as observing the decline of employment makes them feel more uncertain about their own job security (Reichert and Tauchmann 2017). An open question is, however, whether wage cuts as an alternative way for firms to adjust to negative demand

shocks are more or less detrimental to business success. From many interviews with business leaders, Bewley (1999) concludes that the impact of layoffs on work morale is temporary, while they bring the additional advantage of increasing productivity as they allow firms to fire the lowest able workers. Pay cuts, in contrast, may drive the best workers out of the firm.

Figure 3. The life satisfaction effects of subsidized employment



Source. Hetschko, Schöb, and Wolf (2016); calculations based on data of the Panel Labour Market and Social Security (2007-2014, in German: Panel Arbeitsmarkt und soziale Sicherung – PASS).

Note. Grey bars denote people who switch between two yearly waves of PASS data from unemployment to subsidized employment (upper panel) and from subsidized employment to regular employment (lower panel). Dotted bars denote synthetic control groups of people who remain in the same labour market status (upper panel: unemployed, lower panel: subsidized employed). Matching based on entropy balancing of $t-1$ socio-demographic characteristics, financial situation and, in the case of the lower panel, also job characteristics. Life satisfaction measured on an 11-point scale from 0 to 10. Whiskers denote 95% confidence intervals.

As employees appreciate job security, employing people on fixed-term contracts produces job insecurity and accordingly comes at the cost of reduced employee satisfaction. The negative effect of a temporary contract is more pronounced in the job satisfaction of male, highly educated and highly conscientious workers, whose identity may depend strongly on their roles in working life (Chadi and Hetschko 2016). Hence, employers need to trade off the flexibility of insecure modes of employment against potential productivity losses accompanying low employee well-being.

The most disadvantaged group when it comes to job security are temporary agency workers, which show substantially lower subjective well-being than permanent employees (Green and Heywood 2011, Busk, Dauth, and Jahn 2017). Besides experiencing comparatively high levels of insecurity, temporary agency workers do not equally belong to the staff of the user firm, though this is the social group with which they may identify themselves the most. Hence, their level of identity utility may be lower compared to permanent employees. This in turn may reduce their work morale as well, since it does not only depend on happiness but also on “especially good personal contact with supervisors, a spirit of community within the business, and the perception that the company policy is fair” (Bewley 1999, p. 54).

Flexible modes of employment are often misleadingly referred to as ‘irregular jobs’, at least in the political arena. Subsidized employment, however, may be subsumed by this term for much better reasons. For the purpose of job creation, governments either pay firms to offer jobs (‘wage subsidy’), or workers to supply hours (‘in-work benefit’), in order to bridge the gap between wage offer and reservation wage. Hence, intentionally subsidized employment is a way of fighting unemployment to improve, *inter alia*, workers’ well-being. This strategy will only have the desired effect, if a subsidized job actually fully overcomes the drawbacks of unemployment, which is questionable with respect to the loss of identity utility. As long as people receive in-work benefits, they do not fully provide for themselves, and continue to depend on public assistance, just as unemployed workers. Both jobless and subsidized workers in the social grouping working-age may therefore fail to conform to the norms set by their ideal self-image.

Hetschko, Schöb, and Wolf (2016) empirically examine these considerations using data of German in-work benefit recipients who switch between modes of employment over time. Taking up a subsidized job after a period of joblessness improves life satisfaction. However, leaving subsidized employment for a regular job also has a positive effect on life satisfaction (see Figure 3). These results continue to hold if the authors account for parallel changes of income, household characteristics and job attributes. Analogously, the study reveals negative effects for the transitions from subsidized employment to unemployment and from regular employment to subsidized employment. These results may reflect a loss of identity utility associated with the receipt of in-work benefits if compared to a regular job.

3.2 The more the merrier? Working time and well-being

The dramatic decline unemployment causes in life satisfaction made researchers wonder if workers actually face a trade-off between consumption and leisure as usually assumed by theoretical economics (Rätzl 2012, Van der Meer and Wielers 2013, Chadi and Hetschko 2017, Bryson and MacKerron 2017). If work satisfies so unambiguously, full-time employed people should generally be happier than part-time employees, and working long

hours should not reduce well-being at all. This argument runs counter to another argument that is very prominent in happiness economics. Since people work hard to improve their relative income position, working hard and long hours may only reflect a harmful rat race. Accordingly, new taxes that discourage people from working would be beneficial:

“The struggle for relative income is totally self-defeating at the level of society as a whole. If my income rises relative to yours, your income falls relative to mine by exactly the same amount. The whole process produces no net social gain, but may involve a massive sacrifice of private life and time with family and friends. It should be discouraged.” Layard (2005, p. 151)

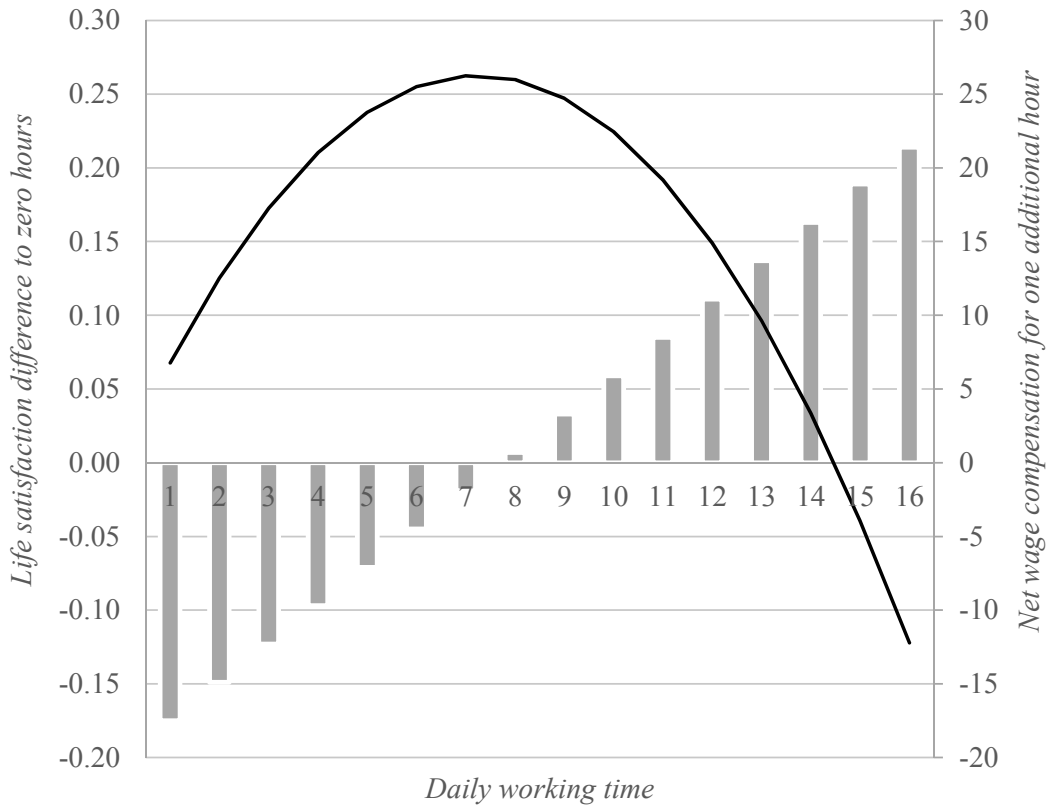
Likewise, the debates about work-life balance, work-family conflict as well as lengthy negotiations of time regulations between work councils and employers would be obscure if work made unambiguously happy. But this may only be true for the cognitive dimension of subjective well-being. As we have learned before, working itself is among the least emotionally rewarding activities, and becoming unemployed increases satisfaction with free time and family life as it relaxes the scarcity of time. Hence, the relationship of working hours and employee well-being demands further clarification.

Rätzel (2012) examines this relationship using German panel data. Controlling for income, life satisfaction increases with the number of hours worked until it reaches a peak and drops when working longer, most likely due to the loss of increasingly scarcer leisure time (see Figure 4). It thus seems plausible that the respondents accepted to work hours beyond the satisfaction peak because they were compensated with more income. The trade-off between consumption and leisure therefore affects life satisfaction, too, but not across the whole range of hours.

Based on his calculation of the income effect on life satisfaction, Rätzel (2012) computes, for each level of working time, the change of income that compensates the life satisfaction effect of an additional hour spent working for a permanently employed man (see again Figure 4). This can be seen as the wage premium that has to be paid if the worker is required to work one hour longer. At low levels of working time, this premium is negative. Too few working hours may lower identity utility caused by a partial failure to meet the social norm to work and provide for oneself, besides bringing about other disadvantages of the mode of unemployment. At the turning point of roughly seven daily hours, the premium becomes positive as the drawbacks of working longer outweigh the positive non-monetary effects. In particular, long hours may reduce the well-being of full-time employees which is why they usually demand an overtime premium.

Interestingly, the time of day has an effect beyond the *amount* of hours. Bryson and MacKerron (2017) make use of British data on affective well-being collected with the help of a smartphone-app to examine this issue. They find that working on bank holidays, on the weekend, before six am and after six pm worsens workers' affective well-being.

Figure 4. The non-monetary life satisfaction effect of working hours



Source. Rätzl (2012, p. 1175-1177) based on the German Socio-economic Panel study (1984-2006).

Note. The line predicts how the number of working hours changes the life satisfaction of a permanently employed male worker as compared to a hypothetical working time of zero hours. Bars depict the change of income in euros that is required to hold his life satisfaction the same though working time increases by one additional hour, dependent on his current level of working time. Note that both income effects and hours effects on life satisfaction are predicted based on an OLS estimation that considers socio-demographic controls, time and individual fixed effects.

Remarkably, the turning point, from where working more hours makes less satisfied in Rätzl's (2012) analysis, differs between women and men. German women are most satisfied with a part-time job (four daily hours) and need to be compensated substantially to work beyond that. Booth and van Ours (2008, 2009, 2013) analyse this issue for several countries and conclude that partnered women often prefer part-time jobs or housekeeping compared to a full-time contract, whereas men are most satisfied in full-time jobs. Gender-specific identities may be part of the explanation as they provide an explanation for the strong gender differences, in opposition to Gary Becker's (1973) model of a job-sharing family.

These empirical findings on the role of working hours again reveal that people also value time that is available for other activities, for their family, friends and hobbies. A problem arises if people work less or more than their desired amount of hours and are not compensated for this mismatch. Such a situation, whether it is overemployment or under-

employment, reduces workers' satisfaction substantially (Wooden, Warren, and Drago 2009, Wunder and Heineck 2013). An hours mismatch may result, for instance, from workers' varying family commitments, plants' varying volume of work as well as from working time regulations at the company, industry or national level, while switching to a different workplace in order to adjust working hours would be more costly than accepting the utility loss from the mismatch. Kugler, Wiencierz, and Wunder (2014) document that substantial shares of Australian and German workers state to be underemployed (12% of male workers in both countries) or overemployed (30% of Australian and 61% of German male workers). Australians' well-being suffers from overemployment and large amounts of underemployment. Germans in particular dislike spending less than the amount of hours they desire to work at their respective wage. Companies requiring employees to work substantially more or less than the desired amount of hours for a long time span may therefore have to accept productivity losses.

4. Self-employment and the special role of autonomy in worker well-being

Up to here, we have learned that the two general modes of employment, being in work and being out of work, as well as employment submodes, such as working in publicly funded jobs, strongly affect subjective well-being. A so far neglected reason for well-being differences among people in work is the role that autonomy plays for the individual identity as well as for the social identity. As it turns out, a higher degree of autonomy generally improves satisfaction with work (e.g. Van der Meer and Wielers 2013). Individuals value the experience of being in charge of their actions and being causal (cf. Frey 2008). According to Ryan and Deci (2000), autonomy reflects one of three main innate psychological needs (the others being relatedness and competence) that raise motivation, mental health, and subjective well-being.

Autonomous work as a particularly positive mode of employment, however, ties people strongly to their jobs, reducing their time for other activities and increasing their fear of losing work. In turn, the fact that autonomously working people are very satisfied with their working life does not automatically imply that they are also particularly satisfied with their lives on the whole (see for example Hansen, this issue). These countervailing effects become most apparent by looking at people who are self-employed.

Compared to paid employees, self-employed people work far more hours, earn less money per working hour and experience lower earnings growth (Blanchflower 2000, Hamilton 2000). It is therefore surprising at first glance that entrepreneurs report higher job satisfaction than wage workers. They do so for mainly one reason. Greater autonomy at work overcompensates self-employed people for the drawbacks of their mode of employment (Benz and Frey 2008a, 2008b, Lange 2012). Feelings of independence directly improve well-being, while autonomy in carrying out tasks fosters coping with stressful work ('job control') and therefore increases job satisfaction indirectly, too (Hessels, Rietveld, and van der Zwan 2017).³

As positive as being self-employed may be for job satisfaction, its impact on overall well-being, as measured by life satisfaction, is unclear (Andersson 2008, Aguilar, García Muñoz, and Moro-Egido 2013). In general, people seem to benefit more from switching

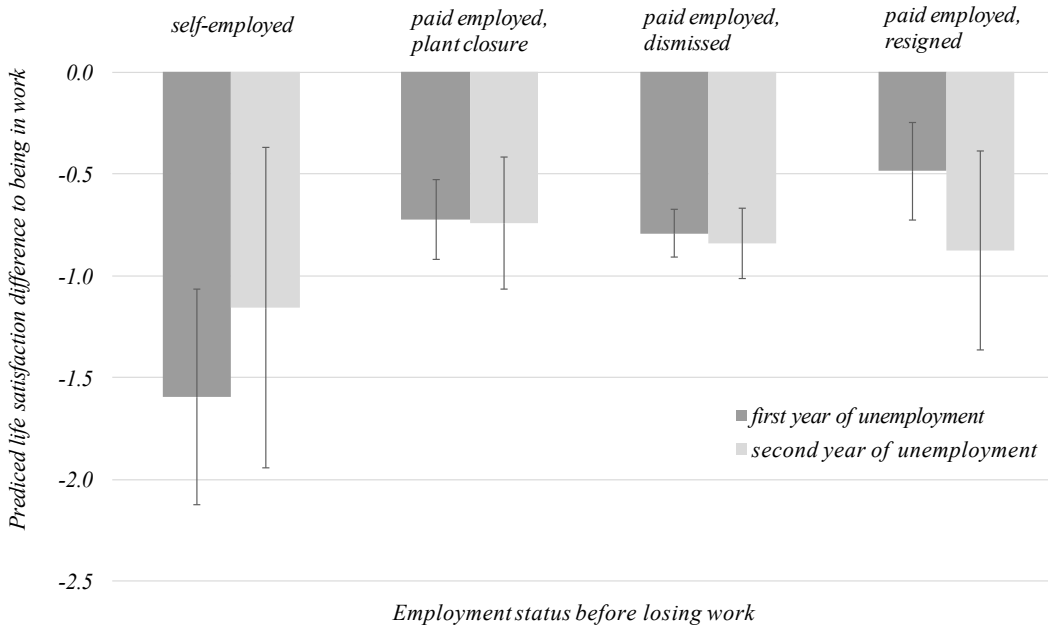
3 In line with these observations, self-employment benefits those workers the most who highly value independence (Fuchs-Schündeln 2009).

from a paid job to self-employment than from the transition from unemployment to self-employment (Block and Koellinger 2009, Binder and Coad 2013). This might reflect two types of self-employment. Workers who go into business for themselves, although they could also have stayed paid-employed, may take the opportunity of implementing a great business idea that is worth giving up a secure job ('opportunity entrepreneurs'). Job seekers, in contrast, become self-employed especially when they cannot find a paid job ('necessity entrepreneurs'), which means that the business venture they start is less promising and rewarding.

Whether or not self-employment improves life satisfaction compared to a paid job also depends heavily on workers' current assessments of their future employment prospects. Based on German panel data, Hetschko (2016) shows that entrepreneurs report higher life satisfaction than wage earners if both groups consider it fairly unlikely that they will lose work within the next two years. Once this probability increases, satisfaction in the two modes of employment decreases, but that of self-employed workers reduces to a far higher extent. As a result, when the probability of losing work becomes relatively high, paid workers are better-off than entrepreneurs. In his data, Hetschko (2016) estimates the turning point at a 58% likelihood of becoming unemployed over the next two years.

Apparently, entrepreneurs fear unemployment more than paid workers, which Hetschko (2016) suggests to reflect a rational expectation. Becoming unemployed reduces the life satisfaction of self-employed workers even more than that of wage earners. To some extent, this result might originate from the severer monetary consequences self-employed

Figure 5. Self-employment and unemployment



Source. Hetschko (2016), based on data of the German Socio-economic Panel study (1997-2013).

Note. The bars show predicted life satisfaction differences of first and second year unemployment to being in work while controlling for income in logs, financial debt, various socio-demographic characteristics, time and individual fixed effects (OLS estimates).

workers have to bear when losing work, i.e. a higher loss of overall income, over-indebtedness and low social protection. But the self-employed still suffer more from becoming jobless when these monetary consequences are controlled for, possibly because their identity derives stronger from their self-created work and autonomy, and from being successful in the area of working life compared to wage workers (see also Figure 5).

Interestingly, the additional non-monetary shock of ceasing one's own business when becoming unemployed vanishes over time, such that formerly self-employed workers tend to have a very similar level of life satisfaction as formerly wage earners after some period of unemployment. Hence, the self-employed may adapt to the particular circumstances of their job loss, i.e. one's own business failure, while they do not get used to being unemployed just like paid employees who were laid-off. Likewise, as Figure 5 also shows, the life satisfaction of people who deliberately gave up a paid job by resigning reduces to a lesser extent than that of other unemployed workers at first, but also becomes similarly negative as time passes by.

5. Retirement: the long arm of employment

We now turn to retirement as the final mode of employment to show how this also relates to identity and well-being. Whether retirement changes life satisfaction for the worse or for the better depends on the characteristics of the country of residence (e.g. pension system, retirement norms) as well as the individual circumstances of the transition to retirement (Calvo, Haverstick, and Sass 2009, Bender 2012, Nikolova and Graham 2014). Two factors seem of special importance, the pre-retirement mode of employment as well as the voluntariness of retirement, and the roles of both can be related to identity utility. Apparently, the 'long arm' (Meissner 1971, p. 239) of working life still catches people and affects their well-being when they have long since retired.

In Section 2, we already referred to the findings of Hetschko, Knabe, and Schöb (2014) that switching the social category from working-age to retirement-age allows unemployed workers to restore identity utility and to gain well-being accordingly, whereas former employees do not benefit from the transition on average. Ponomarenko, Leist, and Chauvel (forthcoming) replicate this analysis for several European countries and come to the same conclusion. These findings raise the question whether retirement allows unemployed workers to restore their life satisfaction fully or not. Hetschko, Knabe, and Schöb (2017) compare the levels of life satisfaction of people who retire from unemployment before the loss of work and after entering retirement. Though leaving the workforce substantially improves the well-being of the unemployed, the catching-up process remains incomplete. The experience of unemployment leaves a scar of about 0.5 points on an eleven-point life satisfaction scale even after retirement.

Ponomarenko, Leist, and Chauvel (forthcoming) also analyse how people who are inactive before retirement, but do not consider themselves as unemployed, such as disability pensioners, experience retirement. This group gains life satisfaction to a lesser extent than formerly unemployed workers. Possibly, many inactive persons do not identify themselves as part of the working population already before retiring, which is why the transition is less of a relief compared to retiring job seekers, who switch social categories. A prerequisite for the unemployed's gain of identity utility upon retirement is therefore that they identify themselves as part of the working population before the transition, but not afterwards.

Employees, in contrast, may face a reverse issue if they retire involuntarily. They do not deviate from the social category working-age before retirement, but might not want to consider themselves as retired afterwards, if they wished to stay employed. The retirement age in many companies is predefined, often corresponding to a statutory retirement age such that people have to retire once they reach that age. Also for the purpose of restructuring without having to dismiss people, employers push employees to retire, who are already eligible for early retirement pensions. In these cases, people retire from employment, but it may well be that they continue to identify themselves with working people, as they did not want to exit the workforce yet. To identify involuntarily retired workers, Bonsang and Klein (2012) use a survey on retired respondents' intentions to return to the workforce. People having these intentions suffer a loss of about 0.5 points on the life satisfaction scale from zero to ten upon retirement, possibly because they do not identify themselves with the social group of retirees. In contrast, workers who voluntarily continue to work late in life are happier than the average pensioner (Nikolova and Graham 2014).

6. Conclusions

Throughout our journey across the research on how different modes of employment affect workers' well-being we have emphasized the part people's self-chosen identity may play. In traditional market economies, social status and self-esteem seem to depend strongly on a successful work life, at least if one is of working age. This explains both the dramatic suffering of the unemployed as well as employees' fear of unemployment, which cannot be explained by the induced loss in income. It also points to well-being losses of people who would like to work longer or who are employed, but still unable to make a living without public assistance as they receive in-work benefits. Finally, the concept of identity utility helps to explain why self-employed workers suffer in particular from losing work, and why involuntary retirement reduces life satisfaction.

Having said this, many questions remain for future research. One open issue is to what extent the loss of identity utility is in fact separable from other suspected negative consequences of unemployment. For instance, people, who do not feel socially accepted anymore, because they lost their jobs, might avoid social contacts, as meeting people renders their failure to comply with the norms of their own social category even more salient. Moreover, the relationship of well-being and productivity is likely to be far more complex than we have assumed up to here. For instance, while a fixed-term contract could yield productivity losses as it reduces well-being, it may at the same time increase work morale if it increases the prospect to achieve a permanent employment contract in the future. This is just one example of how productivity effects from satisfaction changes may depend on the particular context, though high satisfaction increases motivation on average.

The possibilities in choosing one's mode of employment, as well as the constraints on doing so, are crucial for identity utility and thus for subjective well-being. Studies of subjective well-being can thus contribute to both labour economics and personnel economics. With respect to the latter, this strand of research establishes an important complement to the strand of management research that focusses on the determinants of job satisfaction as one indicator of employee well-being. By considering different measures of subjective well-being, by using large-scale representative panel data and by focusing strongly on issues related to unemployment, the economics of subjective well-being allows shedding light on workers, workplaces and industrial relations from a new angle.

Literature

- Aguilar, Alexandra C., Teresa M. García Muñoz, and Ana I. Moro-Egido (2013): “Heterogeneous self-employment and satisfaction in Latin America”, *Journal of Economic Psychology* 39, pp. 44–61.
- Akerlof, George A. and Rachel E. Kranton (2000): “Economics and identity”, *Quarterly Journal of Economics* 115(3), pp. 715–753.
- Andersson, Pernilla (2008): “Happiness and health: Well-being among the self-employed”, *Journal of Socio-Economics* 37(1), pp. 213–236.
- Becker, Gary S. (1973): “A Theory of Marriage: Part I”, *Journal of Political Economy* 81(4), pp. 813–846.
- Bender, Keith A. (2012): “An analysis of well-being in retirement: The role of pensions, health, and ‘voluntariness’ of retirement”, *Journal of Socio-Economics* 41(4), pp. 424–433.
- Benz, Matthias and Bruno S. Frey (2008a): “The value of doing what you like: Evidence from the self-employed in 23 countries”, *Journal of Economic Behavior and Organization* 68(3), pp. 445–455.
- Benz, Matthias and Bruno S. Frey (2008b): “Being independent is a great thing: Subjective evaluations of self-employment and hierarchy”, *Economica* 75(298), pp. 362–383.
- Bewley, Truman (2002): *Why wages don't fall during a recession*, Harvard University Press: Cambridge, MA.
- Binder, Martin and Alex Coad (2013): “Life satisfaction and self-employment: A matching approach”, *Small Business Economics* 40(4), pp. 1009–1033.
- Blanchflower, David G. (2000): “Self-employment in OECD countries”, *Labour Economics* 7(5), pp. 471–505.
- Block, Joern and Philipp Koellinger (2009): “I can't get no satisfaction – Necessity entrepreneurship and procedural utility”, *Kyklos* 62(2), pp. 191–209.
- Bonsang, Eric and Tobias J. Klein (2012): “Retirement and subjective well-being”, *Journal of Economic Behavior and Organization* 83(3), pp. 311–329.
- Booth, Alison L. and Jan van Ours (2008): “Job Satisfaction and Family Happiness: the Part-time Work Puzzle”, *Economic Journal* 118(526), pp. F77–F99.
- Booth, Alison L. and Jan van Ours (2009): “Hours of Work and Gender Identity: Does Part-time Work Make the Family Happier?”, *Economica* 76(301), pp. 176–196.
- Booth, Alison L. and Jan van Ours (2013): “Part-time Jobs: what Women Want?”, *Journal of Population Economics*, 26(1), pp. 263–283.
- Bryson, Alex and George MacKerron (2017): “Are You Happy While You Work?”, *Economic Journal* 127(599), pp. 106–125.
- Busk, Henna, Christine Dauth, and Elke J. Jahn (2017): “Do Changes in Regulation Affect Temporary Agency Workers' Job Satisfaction?”, *Industrial Relations* 56(3), pp. 514–544.
- Calvo, Esteban, Kelly Haverstick, and Steven A. Sass (2009): “Gradual Retirement, Sense of Control, and Retirees' Happiness”, *Research on Aging* 31(1), pp. 112–135.
- Chadi, Adrian (2014): “Regional unemployment and norm-induced effects on life satisfaction”, *Empirical Economics* 46(3), pp. 1111–1141.
- Chadi, Adrian and Clemens Hetschko (2016): “Flexibilization without hesitation? Temporary contracts and job satisfaction”, *Oxford Economic Papers* 68(1), pp. 217–237.

- Chadi, Adrian and Clemens Hetschko (2017): *Income or Leisure? On the Hidden Benefits of (Un-)Employment*, CESifo Working Paper No. 6567, July.
- Clark, Andrew E., Ed Diener, Yannis Georgellis, and Richard E. Lucas (2008): "Lags and leads in life satisfaction: A test of the baseline hypothesis", *Economic Journal* 118(529), pp. 222–243.
- Clark, Andrew E., Nicolai Kristensen, and Niels Westergård-Nielsen (2009a): "Economic satisfaction and income rank in small neighbourhoods", *Journal of the European Economic Association* 7(2–3), pp. 519–527.
- Clark, Andrew E., Nicolai Kristensen, and Niels Westergård-Nielsen (2009b): "Job satisfaction and co-worker wages: Status or signal?", *Economic Journal* 119(536), pp. 430–447.
- Clark, Andrew E. (2003): "Unemployment as a social norm: Psychological evidence from panel data", *Journal of Labor Economics* 21(2), pp. 323–351.
- Clark, Andrew E. and Andrew J. Oswald (1994): "Unhappiness and Unemployment", *Economic Journal* 104(424), pp. 648–659.
- Clark, Andrew E., Yannis Georgellis, and Peter Sanfey (2001): "Scarring: The Psychological Impact of Past Unemployment", *Economica* 68(270), pp. 221–241.
- Fisher, Cynthia D. (2010): "Happiness at work", *International Journal of Management Reviews* 12(4), pp. 384–412.
- Frey, Bruno S. (2008): *Happiness. A Revolution in Economics*, MIT Press: Cambridge, MA.
- Frey, B.S. (2017). Research on Well-Being: Determinants, Effects, and its Relevance for Management. *Die Unternehmung, this issue*.
- Frey, Bruno S. and Alois Stutzer (2002): *Happiness and economics: How the economy and institutions affect well-being*, Princeton University Press: Princeton.
- Fuchs-Schündeln, Nicola (2009): "On preferences for being self-employed", *Journal of Economic Behavior and Organization* 71(2), pp. 162–171.
- Gerlach, Knut and Gesine Stephan (1996): "A paper on unhappiness and unemployment in Germany", *Economics Letters* 52(3), pp. 325–330.
- Green, Colin P. and John S. Heywood (2011): "Flexible Contracts and Subjective Well-being", *Economic Inquiry* 49(3), pp. 716–729.
- Hamilton, Barton H. (2000): "Does Entrepreneurship Pay An Empirical Analysis of the Returns to Self-Employment", *Journal of Political Economy* 108(3), pp. 604–631.
- Hansen, K.F. (2017). Home Office –Salutory Action on Combining Work and Family?, *Die Unternehmung, this issue*.
- Helliwell, John F. and Haifang Huang (2014): "New measures of the costs of unemployment: Evidence from the subjective well-being of 3.3 million Americans", *Economic Inquiry* 52(4), pp. 1485–1502.
- Hessels, Jolanda, Cornelius A. Rietveld, and Peter van der Zwan (2017): "Self-employment and work-related stress: The mediating role of job control and job demand", *Journal of Business Venturing* 32(2), pp. 178–196.
- Hetschko, Clemens (2016): "On the misery of losing self-employment", *Small Business Economics* 47(1), pp. 461–478.
- Hetschko, Clemens, Andreas Knabe, and Ronnie Schöb (2014): "Changing identity: Retiring from unemployment", *Economic Journal* 124(575), pp. 149–166.
- Hetschko, Clemens, Andreas Knabe, and Ronnie Schöb (2017): *Looking Back in Anger? Retirement and Unemployment Scarring*, mimeo.

- Hetschko, Clemens, Ronnie Schöb, and Tobias Wolf (2016): *Income Support, (Un-) Employment and Well-Being*, CESifo Working Paper No. 6016, July.
- Jahoda, Marie (1981): "Work, employment, and unemployment: Values, theories, and approaches in social research", *American Psychologist* 36(2), pp. 184-191.
- Judge, Timothy A., Carl J. Thoresen, Joyce E. Bono, and Gregory K. Patton (2001): "The Job Satisfaction-Job Performance Relationship: A Qualitative and Quantitative Review", *Psychological Bulletin* 127(3), pp. 376-407.
- Kassenboehmer, Sonja C. and John P. Haisken-DeNew (2009): "You're fired! The causal negative effect of entry unemployment on life satisfaction", *Economic Journal* 119(536), pp. 448-462.
- Kelvin, Peter and Joanna E. Jarrett (1985): *Unemployment: Its social psychological effects*, Cambridge University Press: Cambridge, MA.
- Knabe, Andreas and Steffen Rätzel (2011a): "Scarring or Scaring? The Psychological Impact of Past Unemployment and Future Unemployment Risk", *Economica* 78(310), pp. 283-293.
- Knabe, Andreas and Steffen Rätzel (2011b): "Quantifying the psychological costs of unemployment: the role of permanent income", *Applied Economics* 43(21), pp. 2751-2763.
- Knabe, Andreas, Steffen Rätzel, Ronnie Schöb, and Joachim Weimann (2010): "Dissatisfied with life but having a good day: Time-use and well-being of the unemployed", *Economic Journal* 120(547), pp. 867-889.
- Knabe, Andreas, Ronnie Schöb, and Joachim Weimann (2016): "Partnership, Gender, and the Well-Being Cost of Unemployment", *Social Indicators Research* 129(3), pp. 1255-1275.
- Knabe, Andreas, Ronnie Schöb, and Joachim Weimann (2017): "The subjective well-being of workfare participants: insights from a day reconstruction survey", *Applied Economics* 49(13), pp. 1311-1325.
- Krueger, Alan B. and Andreas I. Mueller (2012): "Time use, emotional well-being, and unemployment: Evidence from longitudinal data", *American Economic Review* 102(3), pp. 594-599.
- Kugler, Franziska, Andrea Wiencierz, and Christoph Wunder (2014): *Working hours mismatch and well-being: comparative evidence from Australian and German panel data*, LASER Discussion Papers No. 82, October.
- Kunze, Lars and Nicolai Suppa (2017): "Bowling alone or bowling at all? The effect of unemployment on social participation", *Journal of Economic Behavior and Organization* 133, pp. 213-235.
- Lange, Thomas (2012): "Job satisfaction and self-employment: Autonomy or personality?", *Small Business Economics* 38(2), pp. 165-177.
- Layard, Richard (2005): *Happiness: Lessons from a New Science*, Penguin Books: New York.
- Lucas, Richard E., Andrew E. Clark, Yannis Georgellis, and Ed Diener (2004): "Unemployment alters the set point for life satisfaction", *Psychological Science* 15(1), pp. 8-13.
- Luechinger, Simon, Stephan Meier, and Alois Stutzer (2010): "Why does unemployment hurt the employed?: Evidence from the life satisfaction gap between the public and the private sector", *Journal of Human Resources* 45(4), pp. 998-1045.
- Luhmann, Maike and Michael Eid (2009): "Does it really feel the same? Changes in life satisfaction following repeated life events", *Journal of Personality and Social Psychology* 97(2), pp. 363-381.
- Meissner, Martin (1971): "The long arm of the job: A study of work and leisure.", *Industrial Relations* 10(3), pp. 239-260.

- Nikolova, Milena and Carol Graham (2014): "Employment, late-life work, retirement and well-being in Europe and the United States", *IZA Journal of European Labor Studies* 3(5), pp. 1-30.
- Oswald, Andrew J., Eugenio Proto, and Daniel Sgroi (2015): "Happiness and Productivity", *Journal of Labor Economics* 33(4), pp. 789-822.
- Ponomarenko, Valentina, Anja Leist, and Louis Chauvel (forthcoming): "Increases in well-being after transition to retirement for unemployed. Catching up with formerly employed persons", *Ageing & Society*, accepted.
- Powdthavee, Nattavudh (2007): "Are there geographical variations in the psychological cost of unemployment in South Africa?", *Social Indicators Research* 80(3), pp. 629-652.
- Rätzel, Steffen (2012): "Labour supply, life satisfaction, and the (dis)utility of work", *Scandinavian Journal of Economics* 114(4), pp. 1160-1181.
- Reichert, Arndt R. and Harald Tauchmann (2017): "Workforce reduction, subjective job insecurity, and mental health", *Journal of Economic Behavior and Organization* 133, pp. 187-212.
- Ryan, Richard M. and Edward L. Deci (2000): "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being", *American Psychologist* 55(1), pp. 68-78.
- Schob, Ronnie (2013): "Unemployment and Identity", *CESifo Economic Studies* 59(1), pp. 149-180.
- Spector, Paul E. (1997): *Job satisfaction: Application, assessment, causes, and consequences*, SagePublications 3.
- Stutzer, Alois and Rafael Lalive (2004): "The role of social work norms in job searching and subjective well-being", *Journal of the European Economic Association* 2(4), pp. 696-719.
- Sverke, Magnus, Johnny Hellgren, and Katharina Näswall (2002): "No security: a meta-analysis and review of job insecurity and its consequences.", *Journal of Occupational Health Psychology* 7(3), pp. 242-264.
- Tajfel, Henri and John Turner (1986): *The Social Identity Theory of Intergroup Behavior*, in: W.G. Austin, S. Worchel (eds.), *Social Psychology of Intergroup Relations*, Nelson-Hall: Chicago.
- Turner, John C. (1985): *Social Categorization and the Self-Concept: A Social Cognitive Theory of Group Behavior*, in: T. Postmes, N.R. Branscombe (eds.), *Advances in Group Processes: Theory and Research*, Psychology Press: Greenwich, CT, vol. 2, pp. 77-122.
- Turner, John C. and Katherine J. Reynolds (2010): *The Story of Social Identity*, in: T. Postmes, N.R. Branscombe (eds.), *Rediscovering Social Identity*, Psychology Press: New York, pp. 13-32.
- Van der Meer, Peter H. and Rudi Wielers (2013): "What makes workers happy?", *Applied Economics* 45(3), pp. 357-368.
- Van Hoorn, André and Robbert Maseland (2013): "Does a Protestant work ethic exist? Evidence from the well-being effect of unemployment", *Journal of Economic Behavior and Organization* 91, pp. 1-12.
- Von Scheve, Christian, Frederike Esche, and Jürgen Schupp (2017): "The Emotional Timeline of Unemployment: Anticipation, Reaction, and Adaptation", *Journal of Happiness Studies* 18(4), pp. 1231-1254.
- Wegge, Jürgen, Klaus-Helmut Schmidt, Carole L. Parkes, and Rolf van Dick (2007): "Taking a sickie: Job satisfaction and job involvement as interactive predictors of absenteeism in a public organization", *Journal of Occupational and Organizational Psychology* 80(1), pp. 77-89.
- Weimann, Joachim, Andreas Knabe, and Ronnie Schöb (2015): *Measuring happiness: The economics of well-being*, MIT Press: Cambridge, MA.

- Winkelmann, Liliana and Rainer Winkelmann* (1998): “Why are the unemployed so unhappy? Evidence from panel data”, *Economica* 65(257), pp. 1–15.
- Wooden, Mark, Diana Warren, and Robert Drago* (2009): “Working time mismatch and subjective well-being”, *British Journal of Industrial Relations* 47(1), pp. 147–179.
- Wunder, Christoph and Guido Heineck* (2013): “Working time preferences, hours mismatch and well-being of couples: Are there spillovers?”, *Labour Economics* 24, pp. 244–252.

Acknowledgements: Clemens Hetschko acknowledges financial support by the German Science Foundation (DFG) through project no. SCHO 1270/5-1.

Clemens Hetschko, Freie Universität Berlin, Institute for Employment Research (IAB), CESifo

Ronnie Schöb, Freie Universität Berlin, CESifo and ifo Dresden

Anschrift: Freie Universität Berlin, School of Business and Economics, Boltzmannstraße 20, D-14195 Berlin.

Email: clemens.hetschko@fu-berlin.de and ronnie.schoeb@fu-berlin.de.