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Impact of Past Unemployment and Future  
Unemployment Risk**

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# Scarring or Scaring? The Psychological Impact of Past Unemployment and Future Unemployment Risk

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## Abstract

We reassess the “scarring” hypothesis by Clark et al. (2001) which states that unemployment experienced in the past reduces a person’s current life satisfaction even after the person has become reemployed. Our results suggest that it is not the scar from past unemployment but the expectation to become unemployed in the future that makes people unhappy. Hence, the terminology should be changed by one letter: unemployment is not “scarring”, but “scaring”.

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Keywords: unemployment, scarring, happiness, life satisfaction

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## 1. Introduction

The fear of becoming unemployed in the future is destructive to a person's subjective well-being. Taking into account the devastating impact of the risk of future unemployment, having been unemployed in the past has only a negligible effect on individual life satisfaction. This is the main result of this paper, which provides a more differentiated view on the findings by Clark et al. (2001) who show that unemployment experienced in the past makes an individual less satisfied with his current life situation even if he has become reemployed in the meantime. Clark et al. (2001) label this the "scarring" effect of unemployment: past unemployment leaves a permanent scar on one's face, it inflicts a permanent damage on the human psyche that leads to lower life satisfaction independently of a person's current labor market status. We argue that past unemployment does not have a direct effect on current life satisfaction, but that the relation between past unemployment and current well-being is only indirect. People use the information on how often they had been unemployed in the past as an indicator of their future labor market success. If a person infers from more frequent unemployment episodes in the past that he is also more likely to be unemployed in the future, the drop in life satisfaction correlated with past unemployment will, to a large extent, be caused by the fear of future unemployment. Instead of leaving a "scar", past unemployment would "scare" the individual about the future.

While Clark et al. (2001) show that past unemployment is negatively correlated with current life satisfaction, they do not provide an explanation for this phenomenon. To fill this gap, we extend the study by Clark et al. (2001) by including different measures of the likelihood of future unemployment in our regression analysis. This allows us to distinguish between the genuine scar from past unemployment and the fear of future unemployment. If past unemployment was genuinely "scarring", past unemployment should have a negative impact on current life satisfaction, even if we hold a person's expectations about future unemployment constant. If past unemployment was "scaring" a person about the future, we should find that the fear of future unemployment reduces current well-being, holding constant the time a person has been unemployed in the past. While both effects could potentially be present at the same time, our analysis provides overwhelming support only for the "scaring" effect: the fear of future unemployment is destructive for current well-being. Our analysis does not provide evidence of genuine "scarring". Once we control for insecurity about future employment chances, past unemployment loses much of its explanatory power for current life satisfaction.

The paper is structured as follows. In the next section, we present our data and our estimation methodology. Section 3 contains our empirical results. The last section provides a summary and concludes.

## 2. Data and Econometric Framework

Our empirical analysis is based on the German Socio-Economic Panel (GSOEP).<sup>1</sup> We use the 22 waves for the period from 1984 to 2005. We consider only working age individuals between ages 25 and 55, which yields an unbalanced panel with about 120,000 person-year observations.

Our data on subjective well-being stem from a question in the GSOEP that asks respondents: “How satisfied are you with your life, all things considered?” The question had to be answered on an ordinal scale from 0 (completely dissatisfied) to 10 (completely satisfied).

As our benchmark, we reproduce the estimation specification by Clark et al. (2001). Under this approach, contemporary life satisfaction is explained by a set of personal characteristics, a person’s current employment status, and his unemployment history. We estimate the empirical well-being function:

$$LS_{it} = \beta_0 + \beta_1 UN_{it} + \beta_2 ((1 - UN_{it}) \times PASTUN_{it}) + \beta_3 (UN_{it} \times PASTUN_{it}) + X'_{it} \gamma + v_i + \mu_t + \varepsilon_{it}, \quad (1)$$

where  $LS_{it}$  is the life satisfaction reported by individual  $i$  at time  $t$ .  $UN_{it}$  takes on the value 1 if individual  $i$  is registered unemployed at time  $t$ , and 0 otherwise.  $(1 - UN_{it})$  thus indicates that a person is employed.  $PASTUN_{it}$  is a measure of past unemployment. Following Clark et al. (2001), we define  $PASTUN_{it}$  by the time spent in unemployment as a percentage of total time active in the labor force during the preceding three years. The vector  $X_{it}$  is a set of explanatory variables that can potentially influence the well-being of the individual (such as income, marital status, etc.).  $v_i$  is an individual fixed effect that captures unobserved time-invariant differences between individuals (personal traits),  $\mu_t$  denotes unobserved time-varying circumstances in a specific year that affect all individuals equally, and  $\varepsilon_{it}$  is a random error term.

We compare this benchmark with an extended model in which we take indicators of the fear of future unemployment into account. We extend the estimation equation (1) by including measures of a person’s subjective expectation about the likelihood of future unemployment:

<sup>1</sup> The data used in this publication were made available by the German Socio-Economic Panel Study (GSOEP) at the German Institute for Economic Research (DIW), Berlin. The data were extracted using the Add-On-package PanelWhiz for Stata, see Haisken-DeNew and Hahn (2006) for details.

$$\begin{aligned}
 LS_{it} = & \beta_0 + \beta_1 UN_{it} + \beta_2 ((1 - UN_{it}) \times PASTUN_{it}) + \beta_3 (UN_{it} \times PASTUN_{it}) \\
 & + \beta_4 ((1 - UN_{it}) \times EMPLOYSECURITY_{it}) + \beta_5 (UN_{it} \times EMPLOYCHANCE_{it}). \quad (2) \\
 & + X'_{it} \gamma + v_i + \mu_t + \varepsilon_{it}
 \end{aligned}$$

$EMPLOYSECURITY_{it}$  indicates whether an employed person considers his current job as secure or not. We construct this variable from the answers to a question: “How concerned are you about your job security?” Respondents had three answer options: “very concerned”, “somewhat concerned”, or “not concerned at all”. The variable  $EMPLOYCHANCE_{it}$  is the counterpart for the unemployed. Respondents were asked “If you were currently looking for a new job: Is it or would it be easy, difficult or almost impossible to find an appropriate position?”, where the answer options were “easy”, “difficult” or “almost impossible”.<sup>2</sup>

	$0 \leq PASTUN_{it} \leq \frac{1}{3}$	$\frac{1}{3} < PASTUN_{it} \leq \frac{2}{3}$	$\frac{2}{3} < PASTUN_{it} \leq 1$
employed			
high job security	46.0%	27.3%	26.8%
medium job security	40.4%	44.6%	40.4%
low job security	13.6%	28.1%	32.8%
unemployed			
easy to find a job	9.1%	3.7%	1.5%
hard to find a job	74.9%	70.4%	58.6%
almost impossible to find a job	16.0%	25.9%	39.9%

Table 1: Past unemployment and perceptions of future unemployment risk

The amount of time a person has been unemployed in the past is correlated with this person’s perception of future unemployment risk. This correlation is illustrated in Table 1. Among all employed persons who have been unemployed for less than one third of the past three years, 46.0 percent feel that they have high job security (“not concerned”). Only 13.6 percent think that their job security is low (“very concerned”). Employed persons with more past unemployment experience deem their jobs more risky. Among currently employed persons who have been unemployed for more than two-thirds of the past three years, only 26.8 percent are not concerned about their job security, while 32.8 percent are very concerned. A similar picture emerges for the unemployed. The share of unemployed who think that it is

<sup>2</sup> For the actual estimation in the next section, we construct separate dummy variables for the three respective categories.

easy for them to find a new job drops from 9.1 percent for those with unemployment of less than one-third of the past three years to only 1.5 percent for past unemployment more than two-thirds of the past three years. The share of unemployed who find it almost impossible to find a new job rises from 16.0 percent to 39.9 percent when comparing those unemployed with little experience of past unemployment with those who have experienced unemployment for most of the past years. These numbers clearly illustrate that past unemployment is an indicator of a person's subjective perception of future unemployment risk.

Clark et al. (2001) do not consider the impact of future unemployment risk. They estimate function (1), which corresponds to implicitly imposing  $\beta_4 = \beta_5 = 0$  in specification (2). They find that current unemployment leads to lower life satisfaction ( $\beta_1 < 0$ ), past unemployment reduces current well-being for those who are currently in employment ( $\beta_2 < 0$ ), and that past unemployment has a smaller negative effect on currently unemployed than on currently employed persons ( $\beta_2 < \beta_3$ ). This last finding can also be interpreted as a "habituation" effect because it implies that becoming unemployed hurts less if one has already experienced more unemployment in the past.

In our estimations, we do not impose any restrictions on  $\beta_4$  and  $\beta_5$  and are thus able to distinguish between the effects of past unemployment and future unemployment risk on current well-being. This allows us to test whether past unemployment has a direct impact on current well-being or whether the negative effect is actually caused by the fear of future unemployment. Our two (not necessarily mutually exclusive) hypotheses are

Scarring: Past unemployment scars. It reduces current well-being both for currently unemployed persons ( $\beta_3 < 0$ ) and also for persons who have become reemployed in the meantime ( $\beta_2 < 0$ )

and

Scaring: The prospect of being unemployed in the future is frightening and reduces current well-being both for those currently employed ( $\beta_4 < 0$ ) and unemployed ( $\beta_5 < 0$ ).

Life satisfaction is measured as an ordinal categorical variable. To take the ordinal nature of the life satisfaction variable into account, we first estimate our model using the ordered probit model. In a second step, we apply the fixed-effect ordered logit estimator developed by

Ferrer-i-Carbonell and Frijters (2004) to control for time-invariant personal traits.<sup>3</sup> We choose the fixed effect model because recent findings indicate that time-invariant individual traits exert a strong influence on life satisfaction. For example, Lykken and Tellegen (1996) find evidence that up to 80 percent of the interpersonal variation in well-being is influenced by individual genes and personal traits. More recently, Ferrer-i-Carbonell and Frijters (2004) show that taking account of individual-specific effects is essential in explaining happiness (even more than distinguishing between cardinality and interpersonal ordinality of the satisfaction answers).

### 3. Estimation Results

The results of our ordered probit estimation are presented in Table 2.<sup>4</sup> The results shown in Columns 1 and 2 refer to a specification without any intertemporal effects (setting  $\beta_2 = \beta_3 = 0$  in equation (1)). This is the standard approach taken by most studies on the well-being effect of unemployment that restrict their attention to how variables at time  $t$  influence well-being at time  $t$ .<sup>5</sup> Our results are in line with these studies, which provide overwhelming evidence that becoming unemployed reduces individual life satisfaction by much more than what can be explained by the associated income loss. Even if one could entirely compensate a person for the loss in income caused by unemployment, so that the person could, in principle, enjoy more leisure without reducing consumption, the person would nevertheless suffer from lower life satisfaction. “Work” does not only serve to earn a living, but also has additional, non-pecuniary benefits. Part-time work and self-employment reduce the life satisfaction of men, but not that of women. The income coefficient is positive and highly significant: more income increases life satisfaction of men and women.

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<sup>3</sup> We follow Clark et al. (2001) in conducting a pooled ordered probit regression before the fixed-effects logit estimation. Clark et al. (2001), however, use the fixed effect logit estimator developed by Chamberlain (1980) that transforms the categorical *LS*-scale into a binary variable by imposing one and the same cut-off level on all individuals. This method has the disadvantage of losing all observations of individuals who always report *LS*-levels above or below this cut-off. The fixed effect logit estimator of Ferrer-i-Carbonell and Frijters (2004) avoids this shortcoming by imposing individual-specific cut-offs.

<sup>4</sup> We abstain from presenting summary statistics of the happiness scores and do not explicitly report the coefficients of our control variables because the results are in line with previous studies (see Frey and Stutzer (2002), Blanchflower and Oswald (2004), or Frijters et al. (2004)).

<sup>5</sup> There are numerous studies showing that contemporaneous unemployment has a strong, negative effect on subjective well-being, see e.g. Clark and Oswald (1994), Gerlach and Stephan (1996), Winkelmann and Winkelmann (1998), Korpi (1997), Frey and Stutzer (2000, 2002), Clark (2003, 2006), Blanchflower and Oswald (2004).

	Without intertemporal effects		Only past variables		With past variables and future expectations	
	(1)	(2)	(3)	(4)	(5)	(6)
	Men	Women	Men	Women	Men	Women
<b>Employed</b>						
fulltime	reference	reference	reference	reference	reference	reference
parttime	-0.193 <sup>***</sup> (-0.029)	0.095 <sup>***</sup> (0.011)	-0.162 <sup>***</sup> (-0.036)	0.090 <sup>***</sup> (0.013)	-0.204 <sup>***</sup> (-0.036)	0.034 <sup>**</sup> (0.013)
selfemployed	-0.172 <sup>***</sup> (-0.015)	0.017 (0.021)	-0.201 <sup>***</sup> (-0.018)	0.012 (0.025)	-0.204 <sup>***</sup> (-0.018)	-0.041 (-0.025)
past unemployment			-0.738 <sup>***</sup> (-0.061)	-0.444 <sup>***</sup> (-0.052)	-0.528 <sup>***</sup> (-0.061)	-0.299 <sup>***</sup> (-0.052)
high job security					reference	reference
medium job security					-0.345 <sup>***</sup> (-0.012)	-0.298 <sup>***</sup> (-0.013)
low job security					-0.718 <sup>***</sup> (-0.017)	-0.569 <sup>***</sup> (-0.019)
<b>Unemployed</b>						
past unemployment	-0.852 <sup>***</sup> (-0.017)	-0.581 <sup>***</sup> (-0.017)	-0.761 <sup>***</sup> (-0.033)	-0.528 <sup>***</sup> (-0.034)	-0.415 <sup>***</sup> (-0.08)	-0.080 (-0.101)
easy to find new job			-0.347 <sup>***</sup> (-0.058)	-0.069 (-0.052)	-0.205 <sup>***</sup> (-0.061)	-0.005 (-0.053)
difficult to find new job					reference	reference
almost impossible to find new job					-0.693 <sup>***</sup> (-0.083)	-0.690 <sup>***</sup> (-0.102)
					-0.968 <sup>***</sup> (-0.092)	-0.901 <sup>***</sup> (-0.106)
<b>Income (CPI adjusted total net household income divided by number of household members)</b>						
income/1000	0.201 <sup>***</sup> (0.008)	0.268 <sup>***</sup> (0.008)	0.115 <sup>***</sup> (0.013)	0.192 <sup>***</sup> (0.015)	0.085 <sup>***</sup> (0.013)	0.162 <sup>***</sup> (0.015)
past income/1000			0.087 <sup>***</sup> (0.015)	0.104 <sup>***</sup> (0.017)	0.061 <sup>***</sup> (0.015)	0.082 <sup>***</sup> (0.017)
personal controls	yes	yes	yes	yes	yes	yes
individual fixed effects	no	no	no	no	no	no
time fixed effects (annual)	yes	yes	yes	yes	yes	yes
log likelihood	-113,656	-113,106	-77,715	-78,564	-76,668	-78,005
observations	62,448	61,190	43,138	42,807	43,138	42,807

Note: Ordered probit estimation with time fixed effects. Personal controls include marital status, number of children, years of education, out of labour force, an interaction term between past unemployment and out of labour force, age (and age squared), living in owned accommodation, and having a household member in need of care. Standard deviations in parentheses. \* denotes significance at the 10-percent-level, \*\* at the 5-percent-level, \*\*\* at the 1-percent-level.

Table 2: Regression results (Ordered Probit)

Columns 3 and 4 present the results obtained by estimating the benchmark specification (1). We integrate separate measures of past unemployment of the employed and the unemployed as well as a measure of past income (average income over the past three years). Our results reproduce the main findings of Clark et al. (2001) also with our larger dataset. Currently unemployed individuals are worse off than those in full-time employment. Past unemployment significantly reduces the life satisfaction of all groups (except for unemployed women). The effect is larger for the employed than for the unemployed, so that switching from employment to unemployment hurts less if a person has been more often unemployed in the past already. Hence, the benchmark model produces supportive evidence both for the scarring effect and for habituation to unemployment.<sup>6</sup>

We now want to test whether this negative impact of past unemployment persists once we control for the fear of future unemployment. The main results of estimating specification (2) are shown in Columns 5 and 6 of Table 2. We find clear evidence that the fear of future unemployment substantially reduces current life satisfaction both for men and women. If a person is currently employed, but has the feeling that her job security is only medium (“somewhat concerned”) or low (“very concerned”), her happiness falls far below what it would be if she did not have to worry about her job security. If a person is currently unemployed and deems it difficult or almost impossible to find a suitable job, she experiences a much larger drop in life satisfaction than if it was easy for her to find reemployment. The magnitude of the effect of future expectations is remarkable. Bad future employment prospects exert the largest negative influence on well-being of all variables in the estimation. These findings strongly support the hypothesis that future unemployment is scaring.

With respect to unemployment experienced in the past, Table 2 shows that the ordered probit estimation also finds evidence for a scarring effect, although the coefficients are smaller (in absolute values) than in the specification without future effects. Even if one holds a person’s assessment of her future employment prospects constant, having experienced more unemployment in the past still turns out to be detrimental to subjective well-being. The impact of past unemployment, however, is overestimated in the benchmark model because people interpret longer unemployment spells in the past as an indicator of a higher risk to become unemployed in the future (past unemployment and the subjective assessment of bad future prospects are positively correlated). Since people are afraid of future unemployment, omitting future prospects from the estimation causes an overestimation of the coefficients on past un-

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<sup>6</sup> Since past unemployment refers to the number of months spent in unemployment, independently of the number of distinct unemployment spells, our results suggest that a person becomes habituated to the general state of unemployment rather than to a particular unemployment spell.

employment in specification (1). To sum up, the ordered probit model shows that both the experience of past unemployment and the fear to become (or stay) unemployed in the future have a negative impact on current well-being.

A drawback of the ordered probit model is that it does not allow controlling for time-invariant personality traits. This raises doubts about the causality of the relationship between unemployment and unhappiness. If it was the case that inherently unhappy people tend to become unemployed more often, or have a tendency to be more pessimistic about their future, one would observe that (past) unemployment and bad future prospects are correlated with less happiness, but their relation would be simultaneous instead of causal. To correct for such causality problems, it has become common practice in the happiness literature to apply a fixed effects model that effectively uses only data about changes in the life circumstances of the same individual instead of comparing different persons with each other. By using fixed effects, one can thus control for personal predispositions in life satisfaction.

Table 3 contains the results from a fixed-effect conditional logit estimation (Ferrer-i-Carbonell and Frijters (2004)). In columns (1) and (2), we present the estimation without any intertemporal effects. The results are similar to the ordered probit estimation in Table 2. Being unemployed reduces well-being both for men and for women. Compared to full-time employment, both men and women suffer from being part-time employed or self-employed. Income raises the life satisfaction of both sexes. In columns (3) and (4), we add past unemployment and past income as explanatory variables. Also with fixed effects, past unemployment maintains its negative impact on the life satisfaction of currently employed and unemployed men. For unemployed women, however, it is insignificant, and it even becomes positive for employed women.<sup>7</sup>

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<sup>7</sup> A possible explanation for this positive effect could be that finding a job after having been unemployed for some time is a surprising, favorable occasion and thus gives a larger boost to life satisfaction. Another explanation is that finding a new job after being unemployed causes an “overshooting” in life satisfaction with subsequent downward adaptation to its long-run level. Since the *UEPAST3* measure (time spent in unemployment during the last three years) declines during each year the person stays in his new job, downward adaptation in happiness and lower measures of past unemployment are correlated, yielding a positive relationship between past unemployment and happiness of employed persons. An explicit analysis of this adaptation process is, however, beyond the scope of this paper.

	Without intertemporal effects		Only past variables		With past variables and future expectations	
	(1)	(2)	(3)	(4)	(5)	(6)
	Men	Women	Men	Women	Men	Women
<b>Employed</b>						
fulltime	reference	reference	reference	reference	reference	reference
parttime	-0.318 <sup>***</sup> (-0.086)	-0.143 <sup>***</sup> (-0.038)	-0.260 <sup>**</sup> (-0.109)	-0.138 <sup>***</sup> (-0.047)	-0.283 <sup>***</sup> (-0.110)	-0.160 <sup>***</sup> (-0.048)
selfemployed	-0.221 <sup>***</sup> (-0.063)	-0.029 (-0.072)	-0.310 <sup>***</sup> (-0.08)	-0.070 (-0.089)	-0.318 <sup>***</sup> (-0.081)	-0.081 (-0.089)
past unemployment			-0.288 <sup>*</sup> (-0.170)	0.412 <sup>***</sup> (0.145)	-0.169 (-0.172)	0.509 <sup>***</sup> (0.146)
high job security					reference	reference
medium job security					-0.414 <sup>***</sup> (-0.033)	-0.298 <sup>***</sup> (-0.036)
low job security					-0.910 <sup>***</sup> (-0.050)	-0.608 <sup>***</sup> (-0.055)
<b>Unemployed</b>						
past unemployment	-1.060 <sup>***</sup> (-0.051)	-0.818 <sup>***</sup> (-0.05)	-1.159 <sup>***</sup> (-0.09)	-0.746 <sup>***</sup> (-0.089)	-0.532 <sup>***</sup> (-0.193)	0.025 (0.252)
easy to find new job			-0.422 <sup>**</sup> (-0.185)	0.005 (0.149)	-0.163 (-0.192)	0.055 (0.151)
difficult to find new job					reference	reference
almost impossible to find new job					-1.151 <sup>***</sup> (-0.197)	-1.046 <sup>***</sup> (-0.252)
					-1.610 <sup>***</sup> (-0.230)	-1.211 <sup>***</sup> (-0.265)
<b>Income (CPI adjusted total net household income divided by number of household members)</b>						
income/1000	0.323 <sup>***</sup> (0.031)	0.271 <sup>***</sup> (0.033)	0.258 <sup>***</sup> (0.038)	0.230 <sup>***</sup> (0.043)	0.230 <sup>***</sup> (0.038)	0.212 <sup>***</sup> (0.043)
past income/1000			0.237 <sup>***</sup> (0.046)	0.134 <sup>**</sup> (0.054)	0.236 <sup>***</sup> (0.047)	0.129 <sup>**</sup> (0.054)
personal controls	yes	yes	yes	yes	yes	yes
individual fixed effects	yes	yes	yes	yes	yes	yes
time fixed effects (annual)	yes	yes	yes	yes	yes	yes
log likelihood	-26,317	-25,842	-17,170	-17,316	-16,969	-17,238
observations	57,363	56,209	38,019	38,030	38,019	38,030

Note: Fixed-effects ordered logit estimation with individual and time fixed effects. Personal controls include marital status, number of children, years of education, out of labour force, an interaction term between past unemployment and out of labour force, age (and age squared), living in owned accommodation, and having a household member in need of care. Standard deviations in parentheses. \* denotes significance at the 10-percent-level, \*\* at the 5-percent-level, \*\*\* at the 1-percent-level.

Table 3: Regression results (Fixed Effects Logit)

Adding expectations about the future changes these results significantly (columns (5) and (6)). As in the ordered probit estimation, taking future unemployment risk into account captures a large proportion of the negative well-being effect previously assigned to past unemployment. The coefficients on past unemployment weaken so much that we do not find evidence for a scarring effect for employed and unemployed men anymore. Unfavorable expectations about the future, however, maintain their strong impact on life satisfaction even when we control for fixed effects. This holds for the employed as well as for the unemployed. Employed persons with more job security are significantly happier than if they were employed in more risky jobs, and the unemployed are much happier if they expect finding a new job to be easy compared to situations where they see more difficulties to become reemployed. Even if we control for time-invariant personality traits, we find overwhelming evidence for a scaring effect of future unemployment.

It is also an illuminating exercise to compare the relative size of the estimates. High insecurity about future (un)employment is one of the most harmful conditions for individual well-being. On the other hand, current unemployment in itself matters much less than suggested by previous studies if the unemployed person considers it easy to find a new job. For women, we find that the state of unemployment does not even reduce well-being significantly as long as their future expectations concerning their employment chances are good. Furthermore, our results indicate that, *ceteris paribus*, an employed individual with a high risk to lose his job is less satisfied with his life than an unemployed person who can find a new job easily. This finding puts the negative life satisfaction effects of unemployment typically found in previous studies into perspective, but points to the strong influence of individual expectations about one's future employment biography.

To sum up, our results suggest that the evidence for a genuine scarring effect, which postulates that past unemployment has a direct effect on current well-being, is substantially weakened by taking into account a person's future employment prospects and by allowing for fixed personality traits. We find overwhelming evidence, however, that employed persons suffer from a much lower level of life satisfaction if they feel that their job is insecure and that they might become unemployed in the near future. Likewise, persons without a job feel much happier if it is easy for them to find a new job so that they expect to become reemployed rather quickly. It is not so much that a person has experienced unemployment in the past that causes a loss in life satisfaction, but that unemployment might occur (again) in the future.

#### 4. Conclusion

Our starting point is the “scarring” hypothesis of Clark et al. (2001) according to which people who were unemployed in the past are less happy than continuously employed persons even after they return to employment. In their terminology, unemployment leaves a scar on a person’s face. Our results suggest that past unemployment is only indirectly “scarring”. People interpret their own past unemployment as an indicator of their future labor market prospects. If they have experienced more unemployment in the past, they are more afraid that this might happen to them again. This insecurity about the future is detrimental to life satisfaction. Our findings suggest that it is the fear of future unemployment rather than having experienced unemployment in the past that makes people feel less happy.

Using data from the German Socio-Economic Panel for the years 1984 to 2005, we modify the analysis of Clark et al. (2001) by distinguishing between the impact of past unemployment and insecurity about future employment prospects on current life satisfaction. Our results show that, once we control for future insecurity and time-invariant personality traits, the amount of time a person was unemployed in the past loses its explanatory power for current well-being. We do not find evidence that past unemployment has a negative effect on the well-being of both currently employed and currently unemployed persons. We do find, however, that the prospect of being unemployed in the future is highly detrimental to current life satisfaction. Low job security for the employed and unfavorable reemployment chances of the unemployed are harmful to subjective well-being even after controlling for individual-specific fixed effects.

Our results show that it is not the scar from past unemployment but the fear of future unemployment that makes people unhappy. The label for the intertemporal effects of unemployment should thus be changed by one letter: unemployment is not “scarring”, but “scaring”.

## References

- Blanchflower, D., and A. Oswald (2004): "Well-being over time in Britain and the USA", *Journal of Public Economics* 88, 1359-1386.
- Oswald, A., and A. Clark (1994): "Unhappiness and Unemployment", *Economic Journal* 104, 648-659.
- Chamberlain, G. (1980): "Analysis of covariance with qualitative data", *Review of Economic Studies* 47, 225-238.
- Clark, A. (2003): "Unemployment as a Social Norm: Psychological Evidence from Panel Data", *Journal of Labor Economics*, 21, 2, 323-351.
- Clark, A. (2006): "A Note on Unhappiness and Unemployment Duration", *Applied Economics Quarterly (formerly: Konjunkturpolitik)* 52(4), 291-308.
- Clark, A., Y. Georgellis, and P. Sanfey (2001): "Scarring: The Psychological Impact of Past Unemployment", *Economica* 68, 221-41.
- Clark, A., E. Diener, Y. Georgellis, and R. Lucas (2007): *Lags and Leads in Life Satisfaction: A Test of the Baseline Hypothesis*, CEP Discussion Paper No. 836, London.
- Ferrer-i-Carbonell, A., and P. Frijters (2004): "How important is methodology for the estimates of the determinants of happiness?", *Economic Journal* 114, 641-659.
- Frey, B., and A. Stutzer (2000): "Happiness, Economy and Institutions", *Economic Journal* 110, 918-938.
- Frey, B., and A. Stutzer (2002): "What Can Economists Learn from Happiness Research?", *Journal of Economic Literature* 40, 402-435.
- Frijters, P., J. Haisken-DeNew, and M. Shields (2004): "Money does matter! Evidence from increasing real income and life satisfaction in East Germany following reunification", *American Economic Review* 94(3), 730-740.
- Gerlach, K., and G. Stephan (1996): "A paper on unhappiness and unemployment in Germany", *Economics Letters* 52 (3), 325-330.
- Haisken-DeNew, J. P., and M. Hahn (2006): *PanelWhiz: A Flexible Modularized Stata Interface for Accessing Large Scale Panel Data Sets*, <http://www.panelwhiz.eu>.
- Lykken, D., and A. Tellegen (1996): "Happiness is a stochastic phenomenon", *Psychological Science* 7, 186-189.
- Korpi, T. (1997): "Is Utility Related to Employment Status? Employment, Unemployment, Labor Market Policies and Subjective Well-being among Swedish Youth", *Labour Economics* 4(2), 125-147.
- Winkelmann, L., and R. Winkelmann (1998): "Why are the Unemployed So Unhappy? Evidence from Panel Data", *Economica* 65(257), 1-15.