

# Unemployment and Identity

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# Unemployment and Identity

### **Abstract**

This paper employs social identity and self-categorization theories as a useful heuristic framework through which to learn more about the nature of the misery experienced by the unemployed; in economic terms, the individual cost of unemployment. Utilizing this framework, the paper provides different empirical identification strategies in order to disentangle the various means through which unemployment alters both the well-being and utility of an individual and shows, by reviewing some of the recent research in which I have participated, that unemployment primarily threatens an individual's identity rather than reducing the instantaneous utility derived from day-to-day experiences.

JEL-Code: J600.

Keywords: involuntary unemployment, identity, affective well-being, cognitive well-being.

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#### 1. Introduction

The classic labor economic text book by Layard et al. (1991) is dedicated to "the millions who suffer through want of work". In the preface, the authors denounce unemployment as a major source of human misery. Nowadays, there is a general consensus that this misery is not caused by material hardship alone, as modern welfare states have succeeded in alleviating the material hardship of the unemployed through public unemployment insurance schemes or public welfare benefit schemes.

If not material hardship, then what else causes this misery? Economists have scarcely troubled themselves with this question, despite the fact that knowledge about the size and the determinants of the cost of unemployment is essential for the design of efficient policies to combat and ameliorate unemployment. In order to determine the optimal size of a welfare state, it is necessary to know in which governmental measures benefits exceed costs. This presumes comprehensive knowledge not only about the cost of measures but also about how beneficial outcomes are. Moreover, the correct formulation of welfare state priorities depends on the accuracy with which we can enumerate and evaluate their consequences. This necessitates a comprehensive analysis of the beneficial effects of employment welfare policy. Additionally, until we can locate the source of the misery which stems from unemployment, we will not be able to establish an efficient balance between active and passive labor market policies. Should we put more emphasis on creating new jobs, for instance by subsidizing lowskilled employment, or should we provide more generous income support for those who fail to find jobs themselves? What are the most effective factors in incentivizing the unemployed to look for a new job? To give only one example: economists take for granted that workfare raises the individual cost of unemployment, as it reduces leisure time (cf. Besley and Coate 1992). However, it could also be argued that workfare allows the upholding of a beneficial time structure, and provides access to regular activities and social purpose, thus lowering the burden of unemployment. Indeed, research in social psychology suggests that "employment is psychologically supportive, even when conditions are bad" (Jahoda 1981, 188). Lastly, should labor policy leave those who with the least chance of re-employment on their own, with just enough income support to avoid poverty, or should it actively create opportunities to volunteer in social work, to participate in social life, or to become engaged in sporting activities, to lower the cost of unemployment?

The jury is still out on the question of the true costs of unemployment. Research has identified many influencing factors, but has barely determined either their relative importance

or overall degree of magnitude. However, such assessments are essential in order to design adequate unemployment policies. We need to identify the overall costs of unemployment in order to successfully fix priorities in social policy, and to find the right balance between active and passive labor market policies. Moreover, we need to know how important the different influencing factors are, as only then can we evaluate and compare different labor market instruments. For all these reasons, it is evident that the question of the existence and magnitude of a non-pecuniary or psychological cost of unemployment is inherently economic by nature.

This paper explores how psychological cost can be separated from monetary cost in the analysis of unemployment data pertaining to subjective well-being. In particular, it will be shown that unemployment threatens an individual's self-conception or identity; the individual's perception of 'self'. Unemployment lowers self-worth, as the individual feels unable to meet his or her own demands, increasing stigmatization as to how others see the individual, or how the individual believes that others see him (see e.g. McFadyen 1995, 233f). The paper is structured as follows. Sections 2 to 3 discuss the potential causes for the despair experienced by the unemployed, and then focuses on the effect unemployment has on individual identity. Section 4 shows how economic theory can deal with identity. The theoretical framework in Section 5 is used to describe the different empirical identification strategies to disentangle relevant causes and identify their effects on identity. Sections 6 to 8 then discuss how these identification strategies have been used to expose identity loss as an important factor of the total cost of unemployment. Section 9 discusses these findings and outlines the question for future research.

#### 2. The misery of unemployment

Apart from material hardship, what else causes the misery of those who want to work? According to Marie Jahoda (1981, 1982), a social psychologist, the angst of unemployment is caused by an enforced deprivation of five unintended or latent benefits of employment, namely i) time structure, ii) social contacts beyond the family, iii) the experience of social purpose, iv) status and identity, and v) regular activities. The unemployed "do not enjoy their 'leisure'; they become disheartened, lose their self-respect and their sense of time, and feel on the scrap heap." (Jahoda 1981, 181).<sup>1</sup>

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<sup>&</sup>lt;sup>1</sup> Warr (1987) even lists nine positive benefits of employment from which the unemployed are deprived of: opportunity for control, opportunity for skill use, externally generated goals, variety, environmental clarity, availability of money, physical security, opportunity for interpersonal contact, and valued social position.

Unemployment negatively affects the individual's daily routines, and thus reduces the subject's affective or emotional well-being. Unemployment threatens the personal identity of an individual, reducing cognitive or judgmental well-being. For instance, Protestant-work-ethic socialization places the role of work as central to one's life. A selfhood conceived as an 'absence' of work implies a loss of meaning and fulfillment (McKee-Ryan et al. 2005, 56). Job loss also threatens the performance of other personal roles, such as those of parent, wife, housewife, husband, breadwinner, or volunteer worker, etc. This challenges the perceived extent to which one is in control of one's life (see e.g. Price et al. 1998). Unemployment may affect self-esteem by altering the network of friendship and social support, since, apart from the family, the workplace is often the primary area of contact with friends. Finally, job loss is also perceived as a loss in social identity, as unemployment is a highly stigmatized social status.

The severity of loss in social identity, however, depends on many internal and external circumstances, as well as on the coping strategies of the unemployed subject. Stigmatization may differ between regions and over time. In the case of a factory closure, workers do not feel personally responsible for their fate. They can attribute their unfortunate situation to external circumstances over which they have no control, and expect the wider world to do the same. Loss of identity in such a scenario may be lower compared to a situation where unemployment occurs as a result of an individual lay-off due to, for example, personal misdemeanor (see e.g. Hamilton et al. 1993). Kelvin and Jarrett (1985) report that in periods of high unemployment, when more and more 'ordinary' people are affected, stigmatization of unemployed people rarely occurs.

Coping strategies also play a part in how strongly people suffer as a result of unemployment. Jahoda (1982) and Warr and Parry (1982) argue that the possibility of engaging or emphasizing alternative social roles, such as being spouse or parent, can be used to partially offset the detrimental effect of unemployment. Waters and Moore (2002) show that women have a greater range of non-employment related roles. For example, they may redefine unemployment as retreat to the classical role of a houswife who focusses on domestic work and motherhood.

These findings illustrate that unemployment induces much higher private cost than is asserted by conventional economic theory which ignores out-of-market coping strategies. In the traditional neo-classical framework, the utility loss arising from income loss defines the upper bound of the total cost of unemployment. The unemployed lose access to resources for consumption – which makes them worse off – but are partially compensated by an increase in

leisure time. Thus, if people who are laid off receive the same income as they received when working, they would strictly be better off because they would have the same income as before at their disposal, but more leisure time with which to spend it. Issues such as a loss in status or identity are not considered in this framework.

By contrast, research on life satisfaction provides strong empirical evidence that the misery wrought by unemployment goes far beyond material hardship. When asked whether "[a]ll things considered, how satisfied are you with your life as a whole these days?", unemployed people report substantially lower life satisfaction than employed people. The difference in average life satisfaction remains even after controlling for a large number of additional factors which may affect well-being, such as the respondents' income, social contacts or health<sup>2</sup>. Several papers try to quantify well-being effects unrelated to an actual loss in income. Winkelmann and Winkelmann (1995) quantified these so-called 'nonpecuniary costs' of unemployment in Germany and argued that the 'psychological costs' equal 277 percent of previous income for men, and about 80 percent for women. These figures substantially exceed income loss, which is about 40 percent of previous income. For the US and Great Britain, Blanchflower and Oswald (2004) find psychological costs of a similar size. Knabe and Rätzel (2011a) take intertemporal consumption smoothing into account but still report substantial losses in well-being that cannot be attributed to the actual loss in income. They estimate that the non-pecuniary cost of unemployment for men in Germany roughly equals 80 percent and, for women, 55 percent of former income.

One should, however, be careful in labelling these costs as 'non-pecuniary' or 'psychological'. They could just as equally represent the discounted cost of lower future income expectations and an increase in the volatility of future income. This is suggested by the findings of Knabe and Rätzel (2011b). They show that people's past experience of unemployment, and their subjective interpretations of their employment history, have a negative impact on their perceived future labor market prospects. An anticipated reduction in future income reduces current well-being. Therefore, the question of what exactly determines the 'true' individual cost of unemployment, and to what extent this is determined by income losses and non-pecuniary factors, still remains.

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<sup>&</sup>lt;sup>2</sup> See e.g. Clark and Oswald (1994), Winkelmann and Winkelmann (1998), Blanchflower and Oswald (2004) and for a comprehensive survey Lucas et al. (2004).

#### 3. Identity and utility

One's self-image depends crucially on the way an individual is embedded in social groups, and on one's self-awareness of this embeddedness. According to the social psychology theory of "social identity", one's self-concept is normally neither merely individualistic, nor simply derived from social solidarity and belonging. On the one extreme, people may consider themselves solely as individuals, with no awareness of social categories. This 'personal identity' represents the purely individualistic segment of the self-concept. It depends on attitudes, memories, behaviors, and emotions that distinguish an individual from other individuals (Hornsey 2008, 206). On the other extreme, people may conceive of themselves entirely as members of a certain social group. The social group provides

"...a definition of who one is in terms of the defining characteristics of the category ... People have a repertoire of such discrete category memberships that vary in relative overall importance in the self-concept. Each of these memberships is represented in the individual member's mind as a social identity that both describes and prescribes one's attributes as a member of that group – that is, what one should think and feel, and how one should behave." (Hogg et al. 1995, 259f)

Individual identity is constructed within the range of these two poles, oscillating between personal and social identity.

This process of social identification and categorization is described in the social categorization theory developed by Turner (1985). According to this theory, 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, 20). Belonging to a group is important for the individual's self-concept, as

"...the norms, values, beliefs, and ideologies are socially transmitted through influence and internalized, fundamentally affecting one's psychology – creating socially-shared regularities that affect the content, structure and functioning of the mind." (Turner and Reynolds 2010, 24)

Multiple concepts of selfhood present themselves to the individual, with each particular identity operating at different levels of inclusiveness. Social self-categorization occurs when

<sup>&</sup>lt;sup>3</sup> The theory traces back to Henri Tajfel (e.g. 1981, 1982) and is laid out in more detail in e.g. Tajfel and Turner (1979, 1986), Brewer (2001), Hornsey (2008) or Turner and Reynolds (2010).

perceived differences between certain individuals are less than the perceived differences between them and other people (out-groups) in some particular context. When a categorization becomes salient, people tend to accentuate both the similarities within the group ('we're all much the same') and differences with out-groups ('we're different from them') (cf. Hornsey 2008, 206ff).

This self-categorization takes place on different hierarchical levels.<sup>4</sup> The highest or superordinate category defines the self as a human being, and determines one's *human identity*. Intermediate levels define the self as a member of a social in-group, as defined against other groups of humans. This creates a person's *social identity*. The subordinate level of personal self-categorizations is based on purely interpersonal comparisons and defines oneself as a specific, unique individual or personality; defining the *personal identity*.

When social identity is unsatisfactory, because individuals feel that they belong to a group that has relatively low status, they will strive to leave their existing group and join some more positively distinct group or make their existing group positively distinct. However, people may be very restricted in their choices and it may be impossible, or at least very difficult, for them to divest themselves of an unsatisfactory, underprivileged, or stigmatized group membership (Tajfel and Turner 1986, 9).

While identity and self-categorization theory focuses on explaining group behavior (see Turner 1985, 258), it also helps illustrate important implications for personal individuality, and the benefits derived from the self. Self-categorization processes, which are themselves conditioned by social and political processes, serve to re-compose the self when personal or situational factors are altered. These mutations in the underlying determinants of selfhood, such as group identities, beliefs, and outcomes such as norms, values, and goals, in turn shape the meaning of individuality.

In the world of work, people who have finished their education and are below retirement age consider themselves, on a more inclusive level of categorization, as members of a social grouping of 'working-age people'. Less inclusive intermediate levels may also exist, in subcategories such as 'being employed', 'being unemployed', being involved in 'domestic work', 'being temporarily on leave' etc. On the personal level, status within the firm, degree of responsibility or leadership, or income and fringe benefits, also play a role.

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<sup>&</sup>lt;sup>4</sup> Thereby the individual is considered as a multifaceted social construct, and variation in selfhood is explained in relation to the different roles people occupy (see Hogg et al. 1995, 256).

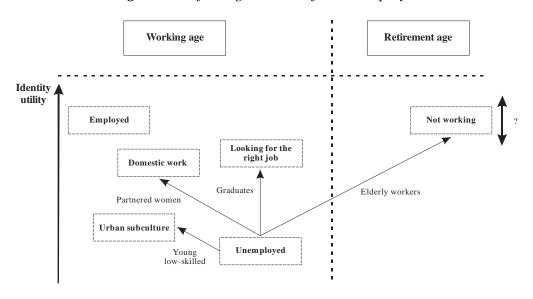


Figure 1: Self-categorization of the unemployed

While employed, people rarely perceive themselves as of 'working-age', even though they share values and goals similar to members of this social group. Their identity is predominantly built on personal characteristics and achievements. Being laid off, however, emphasizes the values and goals of the more inclusive working-age group, causing the laidoff individual to feel that, on a lower categorization level, he has shifted from being 'employed' to the group of 'unemployed'. Consequently, his self-perception shifts towards the prototypical attitude of 'being unemployed', defined by common fate, a shared experience of failure, redundancy, deprivation, anxiety, and general vulnerability. This perception dominates the social identity component, causing it to increase in influence over one's selfconceived personal identity. (see e.g. Turner and Reynolds 2010, 21 or Hogg et al. 1995, 261). However, the potential of coping with this new situation, and to at least partially restore one's identity, does still remain. This is illustrated in Figure 1. Partnered women might redefine their situation as a retreat into domestic work, whilst graduates may convince themselves that they are still looking for the right job, and elderly workers might consider a lay-off as the right time to retire. In Figure 1 these coping strategies are indicated by the arrows between the sub-category boxes. When an individual feels unable to escape the lowstatus group of being 'unemployed', or can only partially regain social identity, she perceives a loss in self-worth and "identity value". 5 Thus, in Figure 1 all these sub-categories are plotted on lower levels than the sub-category 'employed'.

<sup>&</sup>lt;sup>5</sup> Note that the self-categorization of the unemployed neither emerges from the need for mutual need satisfaction nor interpersonal attraction. Rather, it is defined by the shared deprivations, costs, or frustrations that provide a basis of perceived identity of an unemployed.

Social identity theory and self-categorization theory demonstrate that individuals develop a 'sense of self' or a set of 'self-images' corresponding to different social categories, and that such self-images are crucial for individual behavior and individual well-being. Identity is thus critical in understanding individual behaviour and in learning about what determines individual well-being.

#### 4. Introducing identity to economics

Until recently, identity did not matter in economics. Akerlof and Kranton (2000) deserve the credit for correcting this. They argue that choices of identity are amongst the most important economic decisions that one can make, and that any form of delimitation to this choice acts as a highly detrimental determinant of individual well-being (see Akerlof and Kranton 2000, 717). When individuals fail to adhere to, or actively violate, rules internalized from social groups, a modified utility function can account for the resulting sense of anxiety or 'cognitive dissonance' people feel and which, in economic terms, causes a loss in utility. The minimization of cognitive dissonance, and sustenance of one's social identity, becomes part of overall utility maximization (cf. Davis 2011, 71ff for a detailed discussion). Striving to behave according to the internal rules of the social group one belongs to is a personal choice, and so altering self-identity by modifying social categorisation, and thus one's social identity, may be an alternative choice. The theory is therefore agnostic as to whether individuals are aware of the reasons for the choices they make.

Akerlof and Kranton (2000) divide the individual's total utility function into distinct individualistic and identity parts. The individualistic part depends on the individual's own choices about goods and services. The individualistic part of individual j's utility can be represented by a standard utility function  $V_j$  such as  $V_j(a_j,a_{j})$ , where  $a_j$  indicates the individual's action and  $a_j$  the action of other individuals. Personal actions can, for example, include private consumption and leisure, whilst external activity could comprise the provision of public goods or the consumption of goods by others that create positive or negative externalities.

Identity affects the individual's utility via the second "identity part" of the utility function. This part represents the *subjective cognitive assessments* of personal circumstances related to self-conception, and thus individual identity. Identity  $I_j(a_j,a_j,c_j,\varepsilon_j,P)$  also depends on individual actions, and their relation to those of others. In addition, it depends on the status of the social category  $c_j$  that the individual feels that he belongs to, and the way in which the

individual or personal characteristics  $\varepsilon_j$  match the prototype or ideal of the social category  $c_j$  and the prescription P, of how prototypical actions and characteristics ought to behave within the social category. The identity part thus represents the utility derived from adhering to personally held objectives and beliefs, and ideals and social norms relevant to one's own social category (see Akerlof and Kranton 2000, 719). Given that identity is shaped by the behavior, characteristics and beliefs of others, its incorporation into the utility function creates a 'new type of externality" (Akerlof and Kranton 2000, 717). The identity-augmented utility function accommodates for the fact that

"(1) people have identity-based payoffs derived from their own actions; (2) people have identity-based payoffs derived from others' actions; (3) third parties can generate persistent changes in these payoffs; and (4) some people may choose their identity, but choice may be proscribed for others." (Akerlof and Kranton 2000, 717).

Total utility is then given by  $U_j = U_j(V_j, I_j)$ . In what follows, for the sake of the argument, we assume that this function is additively separable, i.e. we assume

$$U_{j}(V_{j}, I_{j}) = V_{j}(\boldsymbol{a}_{j}, \boldsymbol{a}_{j}) + I_{j}(\boldsymbol{a}_{j}, \boldsymbol{a}_{j}, \boldsymbol{c}_{j}, \boldsymbol{\varepsilon}_{j}, \boldsymbol{P}). \tag{1}$$

With this division of subjective well-being into an affective and a cognitive component, we can theoretically disentangle the multivalent avenues through which unemployment alters the individual's well-being and utility. Jahoda's (1982) lists five reasons for the dislocation caused by unemployment. The first two, the loss of a given daily time structure and the loss of regular activities, mainly affect the individualistic part  $V_j$  of the utility function. The changes in social contacts may also affect  $V_j$ .

The identity part  $I_j$  takes account of the evaluative judgments of one's life circumstances. Losing contact with former working colleagues may be attributed to increased disrespect from friends and a loss in social status, which in turn affects identity. Identity is also threatened by the loss in self-esteem caused by a sense of a lack in social purpose. Furthermore, unemployment makes the prescriptive social category of 'working age' salient. After being laid off, people perceive themselves as lower in social status. This feeling is accentuated relative to even the more positive aspects of the personal identity. All this lowers the identity utility,  $I_j$ .

To give a highly simplified example; the individual may come to consider herself as part of the social category of 'working age'. With respect to the employment status, the personal characteristic  $\varepsilon_i$  is indicated by the different subgroups. Other personal characteristics may refer to the actual health conditions and the ability to work. Being of 'working age' as a category prescribes that 'you should work when you are healthy and able to work'. Employed people derive 'identity utility' from belonging to the social (sub-) category of being 'employed', and the fact that they conform to the expectations, customs, beliefs and norms of the social category inherent in being of 'working age'. The jobless belong to the lower-status sub-group of the 'unemployed'. The prototype of this social (sub-) category deviates from the prescriptive definition of "working age", and a dissonant identification with this prototype causes cognitive harm. It may, however, be alleviated by certain actions, such as actively looking for a new job, focusing on domestic work, engaging in voluntary work, or actively redefining the self-image by attempting to re-define one's subgroup identity. Nevertheless, involuntary unemployment implies that although the unemployed may engage in coping strategies to restore identity, they end up losing identity utility. Elderly workers may recategorize themselves into the more inclusive social category of 'retirement age', but they must then adhere to the prescription that they do not have to work. Whether this allows the individual to fully restore identity depends on how the status of the social category of 'retirement age' is perceived in relation to the social category of 'working age'. In Figure 1 the position of the box 'retirement age' relative to the box 'working age' is thus not defined.

In the following section we will show how this framework can be used to empirically identify the different channels by which the misery of the unemployed is affected.

#### 5. From the theoretical framework to empirical identification strategies

Subjective well-being is often considered as a proxy for utility (see e.g. Frey and Stutzer 2002). As we want to distinguish different components of the utility function, however, we need information about the different channels by which subjective well-being is affected. Ideally, given our theoretical framework presented in the last section, we need two distinct measures of subjective well-being that can be attributed to the two distinct components of total utility. A first measure is needed to account for the individualistic part of the utility function, which is closely related to the *affective well-being* of an individual. Such a measure would only account for the contemporaneous flow of experiences, and thus only refer to the pleasantness of people's emotional lives. A second measure is needed for *cognitive well-being*, which is related to identity utility. This would only address the global evaluative judgment of one's life circumstances. Unfortunately, such distinct measures are not at hand.

Nevertheless, we can disentangle the two utility components empirically, by exploiting the fact that we find different measures of subjective well-being discussed in the literature that themselves are saturated, to varying degrees, with affective experience and cognitive judgment.

- The first measure is the respondents' global assessment of their *life satisfaction*. When respondents are asked to answer the question "How satisfied are you with your life as a whole?" on a scale from 0 ("not at all") to 10 ("very much"), they have to create a reference framework of what constitutes a satisfied life (Diener et al. 1985). To do so, people compare their own life circumstances with those of other people at the same time and with their own life at other points in time (Dolan and Kahneman 2008). They also ask about purpose and meaning in life, something that certainly transcends day-to-day experiences (Loewenstein 2009). Although the life satisfaction measure mainly reflects the cognitive, judgmental assessment of what constitutes a satisfied life, it also contains an affective component (cf. Diener et al. 2009b, 243, also see Kahneman and Deaton 2010). The weight the individual attributes to either component are unknown.
- The second measure is the *net affect* measure, introduced by Bradburn (1969). This measure can be derived from, for example, standardized survey questionnaires such as the Day Reconstruction Method (DRM), developed by Kahneman et al. (2004a,b). Its key component is the measurement of the affective experiences of participants during the previous day. Respondents are asked to list all activities they were engaged in during the course of that day, beginning with the first one after waking up and concluding with the last one before going to bed, and to note the start and end time of each activity. Respondents are to then assess how strongly they experienced various affective dimensions in each activity on a scale from 0 ('not at all') to 10 ('very much'). Positive affect is rendered in attributes such as 'relaxed', 'happy', 'comfortable/at ease', and 'enjoying myself'. Negative affect scores for items such as 'lethargic/dull', 'insecure/anxious', 'stressed', and 'frustrated/annoyed'. Respective response scores are summed, and the difference between the average scores of positive

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<sup>&</sup>lt;sup>6</sup> Reports on subjective well-being may not reflect a stable inner state of well-being. Schwarz and Strack (1999) argue that how individuals form their judgments may be context dependent, based on information that is chronically or temporarily accessible at that point in time, the judgments may also be affected by the current mood, the weather (e.g. Schwarz and Clore 1983) or the framing of the question (e.g. Schwarz and Strack 1991). The test-retest reliability of the life satisfaction measure when the interviews are two weeks apart is normally below 0.6, which Krueger and Schkade 2008 consider as being sufficiently high, to make the life satisfaction measure a reliable measure for the comparison of group averages. For a thorough discussion of the life satisfaction measure, see Diener et al. (2009a).

and negative affects yields the net affect for this particular activity. Net affect scores of all activities are then weighted with the time spent in each, thus obtaining the time-weighted affective experience *NA* over the course of the day.

To link these measures of subjective well-being to the identity-augmented utility function, we assume that the affective experiences, measured by the net affect  $NA_j$  only affect the individualistic utility component  $V_j$ , and do not enter the cognitive assessment of a person's self-image or identity. A change in affective well-being is thus positively correlated with a change in the individualistic part of the utility function, i.e. we have

$$sign(\Delta NA_i) = sign(\Delta V_i). \tag{2}$$

Life satisfaction is given by a function

$$LS_{j} = f\left(g(NA_{j}), I_{j}, v_{j}\right), \tag{3}$$

where the direct utility component  $V_j$  is represented by a function of the net affect  $g(NA_j)$ , satisfying condition (2), identity utility is denoted by  $I_j$  and other factors, such as personal and cultural characteristics that affect the subjective assessment of life satisfaction by  $v_j$  (see e.g. Diener et al. 1985 for a discussion). As discussed above, we assume that  $LS_j$  is increasing in both  $NA_j$  (and thus  $V_j$ ) and  $I_j$ . The reported life satisfaction is used as an empirical proxy for total utility  $U_j$  of an individual j so that we can link equations (1) and (3) in the following way:

$$sign(\Delta LS_j) = sign(\Delta U_j)$$
. (4)

We cannot measure changes in cognitive well-being, i.e. changes in identity utility, directly. However, the framework laid out here offers the possibility to design a variety of empirical strategies to identify identity effects of unemployment. These different identification strategies are discussed in the following three sections.

#### 6. Finding indirect evidence for identity effects

A first identification strategy may be called the indirect identification strategy. The idea here is to isolate impact factors that are very likely to affect only one component of the total utility function. This has been done by Andrew Clark (2003), who argues that life satisfaction or, in our interpretation, the individual's identity utility, varies as the strength of work norm comes to critically depend on other external circumstances, such as the regional unemployment rate,

because the regional unemployment rate indicates to what degree an individual feels responsible for her fate of unemployment. He thus tests the hypothesis that the strength of the social work norm is negatively correlated with the regional unemployment rate. In our framework, such an interpretation only holds if differences in the regional unemployment rate leads to changes in the prescription P which in turn affect  $I_j$ , while the net affect  $NA_j$  remains constant.

Using the GHQ-12 measure of mental well-being that uses 12 questions about the psychological state of respondents to analyze individual well-being, Clark shows that the well-being gap between the employed and unemployed in Britain indeed narrows when regional unemployment increases. *A priori*, one may have expected the opposite effect, as the higher unemployment rate, due to a recession or in a particular regional crisis, lowers the individual's prospects of finding a new job. This should have a negative effect which counteracts the positive effect of reduced self-blame and reduced stigmatization by others. Lower stigmatization moves in parallel with lower responsibility for the fate of unemployment. Similar results have been found for the United Kingdom (Shields and Wheatley Price 2005), Australia (Shields et al. 2009), South Africa (Powdthavee 2007), and Germany (Clark et al. 2010).

The results are in line with the case studies mentioned above, which demonstrate that stigmatization is considered lower when individuals are not made responsible for their unemployment. These results may thus explain how gradual loosening of the strength of social norms within a given social category reduces the loss in identity. However, the data can also be interpreted in alternative ways. Firstly, it is conceivable that unobservable personal characteristics increase the probability of unemployment and lower well-being at the same time. In this case, we would have an selection effect; the lower the regional unemployment, the larger the proportion of unemployed who feel miserable because of personal characteristics. Secondly, it is also conceivable that higher regional unemployment allows people to spend their time in different ways so that the lower loss in well-being may be the result of higher affective well-being. In this case, the individualistic part of the utility function V<sub>i</sub> may rise. The findings by Clark are thus not conclusive support for the impact of social norms on well-being. Additional evidence, however, is provided by Chadi (2011), who shows that it is not unemployment per se which reduces the well-being gap between employed and unemployed in regions with high unemployment rates, but the fact that one becomes a welfare recipient. It is harder to argue that the affective experiences of unemployed people depend substantially on whether or not they are welfare recipients, so this finding strengthens the case for social norm effects at work. However, it could also be the case that, in regions with low unemployment rates, otherwise unobservable personal characteristics that lead to unemployment become salient, in turn causing the unemployed to suffer further.

Stutzer and Lalive (2004) apply an alternative method for inferring the social work norm. They use Swiss data on local variations in a referendum vote and interpret stronger regional support for cuts in unemployment benefits as an indicator of a stronger work ethic P and show that lower political support for cuts in unemployment benefits reduces the gap in life satisfaction between employed and unemployed people. They demonstrate evidence for the effect that work ethic has on the behavior of the unemployed. If voting behavior will hardly affect  $NA_i$ , this provides indirect evidence for an identity effect of unemployment.

The paper by Winkelmann (2009) indirectly serves as an illustration of the limitations of the indirect strategy to detect identity effects. He tested the hypothesis that people with a larger social network and better opportunities to use their increased leisure time might not be as exposed as others to the adverse psychological mechanisms of unemployment. In our framework, this hypothesis might be interpreted as demonstrative that embeddedness in a social network will attenuate negative effects on both the affective component  $V_j$  and the cognitive component  $NA_j$  of the utility function; according to this hypothesis, social capital can serve as substitute for employment as a source of self-esteem and a controlled, structured life. While his results show that social capital has a very large impact on life satisfaction, there were no effects on life satisfaction differentials generated by unemployment. One possible explanation is that social capital may alleviate part of the psychological burden, through providing time structure and regular activities. However, at the same time, closer social contacts may make the norm deviation more salient and thus more accentuated in one's identity, causing a countervailing identity loss. Having only one measure of well-being at hand, however, renders such an explanation purely speculative.

#### 7. Using different well-being measures

Using two distinct measures of well-being makes it possible to disentangle the different effects of unemployment on well-being and, in particular, on identity. Without making any restrictive assumptions concerning the functional form of equation (3), we may already be able to derive qualitative statements. For instance, if we compare employed and unemployed people and observe that the changes of the two measures go into opposite directions, e.g.

$$\Delta LS = LS^{unemployed} - LS^{employed} < 0 \text{ and } \Delta NA = NA^{unemployed} - NA^{employed} > 0 \Rightarrow \Delta I < 0$$
 (5)

this result would give strong evidence for a loss in identity due to unemployment. However, due to the very strong requirement that the impact on life satisfaction and affective well-being be of opposite signs, we may not be able to find evidence for the existence of identity effects in many cases where they are actually present, since identity effects can also be present when unemployment affects both affective experiences and cognitive assessments in the same direction. To overcome this problem, we can impose some restrictions on the functional form of  $LS_i$ , for instance, by applying a linear version of equation (3):

$$LS_{i} = \omega_{A} \cdot NA_{i} + \omega_{I}I_{i} + \omega_{v}'v_{i}, \qquad (6)$$

where  $\omega_A, \omega_I > 0$  and the vector  $\omega_v$  denote the unknown weights with which affective experience  $NA_j$ , identity utility  $I_j$ , and a vector of other factors,  $V_j$ , enter life satisfaction. When we regress life satisfaction on personal economic and socio-demographic characteristics, while controlling for individual differences in affective experiences  $NA_j$  and personal and cultural characteristics  $V_j$ , a significant residual relationship between a person's employment status and life satisfaction would be suggestive of an identity effect.

#### 7.1 Dissatisfied with life but having a good day

In Knabe et al. (2010), we examine whether the loss in life satisfaction experienced by the unemployed is caused by a decline of the affective well-being or by the cognitive judgment of how well one's life goes. For this study, we interviewed 366 respondents who were employed full-time and 348 long-term unemployed persons eligible for the means-tested "Unemployment benefit II" who were not engaged in any type of welfare measure.

In the interview, we asked how people used their time on a specific day, their affect levels during all activities they were engaged in during the course of that day, their general life satisfaction, and their general life circumstances. This enabled us to compare unemployed and employed people with respect to differences in the assessment of general life satisfaction *LS* and differences in the assessment of emotional affects measured by the *NA*. Thereby, we could analyze how the different composition of activities during the whole course of the day, and the difference in the duration of these activities, affected these measures.

**Table 1**: Life satisfaction vs net affect

	Life Satisfaction	Net Affect
Employed	7.074	4.404
Saddening effect		-0.328
Time composition effect		+0.496
Unemployed	4.385	4.572
Difference	-2.689*** (0.000)	+0.168 (0.371)

Source: Knabe et al. (2010), Table 4.

Note: Standard errors for  $H_0$ : difference=0 in parentheses; in parentheses;

\*\*\* denotes significance at the 1% level.

Table 1 shows the main results. The employed reported an average value of life satisfaction, which we interpret as a proxy for total utility, of 7.074, while the unemployed stated a significantly lower average value of only 4.385. This difference, however, is not apparent in the day-to-day experiences of employed and unemployed people represented in the net affect measure in the second column. Quite to the contrary; while the average net affect is 4.404 for employed people, the average score of the unemployed is 4.572. During the course of the day, the unemployed do not feel unhappy and are in fact at least as happy as the employed.

The difference in the net affect of employed and unemployed people can be explained by two effects, which we separated by the following thought experiment. We first calculated how the average net affect of all employed persons would change if they became unemployed, under the assumption that they experience the average net affect of an unemployed person in all activities, but maintain the time schedule with the original net affect score they had when they were employed. The difference between the original net affect and its value after this hypothetical drop in well-being levels corresponds to a 'saddening effect'. We found that the unemployed report lower well-being scores in almost all leisure activities. If the employed enjoyed their leisure time in the same way as the unemployed, their average net affect during the course of the day would have been lower by 0.328. This finding is in line with Krueger and Mueller (2012), who compare the emotional well-being of employed and unemployed persons during similar activities and find that the unemployed report feeling more sadness, stress and pain than the employed.

The residual difference to the average net affect of the unemployed yields the 'time-composition effect'. As it turned out, working and work-related activities were among the activities with the lowest net affect. Therefore, as the unemployed do not work, they can allocate more time to other, more enjoyable, activities. This time-composition effect is perfectly in line with what the standard neoclassical utility function suggests. According to this decomposition of the total effect, the time-composition effect increases the average net affect by close to +.5, confirming that utility is increasing in leisure. Furthermore, the saddening effect could be explained by decreasing marginal utility of leisure, though it may also be explained by the loss of time structure and regular activities, as suggested by Jahoda (1982).

The two distinct effects – the saddening effect and the time-composition effect – become particularly transparent when we consider Sunday and working days separately. On Sunday, when the time-composition effect is not at work, the employed people report a higher net affect than the unemployed, while on weekdays these differences are almost wiped out.

In Knabe et al. (2010), we find that unemployment lowers life satisfaction, i.e. we confirm  $\Delta LS < 0$ . However we cannot reject the hypothesis that  $\Delta NA \le 0.7$  To gain further insights, I use the same dataset to regress life satisfaction on personal economic and socio-demographic characteristics, while controlling for individual differences in affective experiences  $NA_j$ . The results are shown in Table 2.

Table 2: Life satisfaction vs net affect

	Life Satisfaction $LS_j$		
Unemployed	-1.874*** (0.238)		
Net affect $NA_j$	+0.297*** (0.032)		
Demographic controls	sex, age and age <sup>2</sup> , health, educational attainment, family status, (log) income		
Observations	707		
R-squared	0.490		

Source: Own calculations, based on the data provided by Knabe et al. (2010).

Note: OLS estimation. Standard errors in parentheses. \* denotes significance at the 10% level, \*\*

at the 5% level, and \*\*\* at the 1% level.

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<sup>&</sup>lt;sup>7</sup> The fact that we could not reject  $\Delta NA \ge 0$  as well provides only weak evidence that emotional well-being is not positively affected by a person's employment status.

If people become unemployed, life satisfaction falls even when we control for the affective well-being. The fall in life satisfaction is substantial and highly significant. These results are thus in line with the argument made above that if people become unemployed, they lose part of the social identity derived from belonging to the 'working age' social group. When unemployed, they cannot adhere to the objectives, beliefs, ideals and norms relevant to this social category. They do not belong to the subgroup of 'employed' anymore, but re-categorize into the much lower-ranked subgroup of the 'unemployed' (see Figure 1). As the focus is on the long-term unemployed, the loss in social identity seems to be persistent. The long-term unemployed seem hardly able to adapt to the new situation because unemployment does not cause people to adjust their aspirations (cf. Lucas et al. 2004). The unemployed continue to consider 'being in employment' as the prescription of the 'working age' social category they should adhere to. Knabe et al. (2010) argue that unemployed people face hedonic adaptation, in so far as they become used to changing life circumstances in their day-to-day experiences. The driving force for hedonic adaptation is the opportunity to use their time in a way that yields higher levels of satisfaction than working and work-related activities. These results thus indicate that the cognitive components of Jahoda's (1982) list of lost side-benefits of employment are the dominant factors of the misery of unemployment, though the saddening effect indicates that the affective aspects may also play some role.

There is one caveat to the interpretation presented here. It is true that only the cognitive measure changes, but this shift may also derive from the fact that the unemployed realize that their future income prospects are bleak. If they take into account the discounted loss in future income and the increased income risk they face, their judgment about their life circumstances may be more pessimistic. As the net affect only comprises current experiences, the lower life satisfaction of the unemployed may not be the result of an identity loss, it might rather be attributed to future income losses. The life satisfaction function thus may have to be modified so that it also accounts for the expected future individualistic part of the utility function  $E\left(\sum_{t=1} V_j(t)\right)$ . Thus, equation (3) should be extended to

$$LS_{j} = f\left(g(NA_{j}), E\left(\sum_{t=1} V_{j}(t)\right), I_{j}, v_{j}\right). \tag{7}$$

Accordingly, when the change in the life satisfaction measure and the change of the net affect go into opposite directions, we cannot argue with certainty that this is indicative of an identity effect. Moreover, rather than regressing equation (6), we may actually have regressed

$$LS_{j} = \omega_{A} \cdot NA_{j} + \omega_{I} \left[ E\left(\sum_{t=1} V_{j}(t)\right) + I_{j} \right] + \omega_{v}' v_{j}.$$
 (8)

A first attempt to deal with this problem might be to look at men and women separately as we can expect – according to Figure 1 – that identity effects are different, while assuming that the impact of unemployment on future income paths are similar. This is done in the next subsection.

#### 7.2 Gender and partnership

In Knabe et al. (2012), we disentangle the aggregate effects shown in the last section. When looking at the effect of one's own unemployment, we look at men and women separately and distinguish each group with respect to its partnership status and to the partner's employment status. The differences in well-being between employed and unemployed people are summarized in Table 3. Partnered unemployed men show the lowest identity utility; while their life satisfaction is much smaller in comparison to the employed ( $\Delta LS^{men} = -3.380$ ), whose net affect is higher ( $\Delta NA^{men} = +0.557$ ). We find similar patterns for single men, but the differences are more moderate in size. The opposing signs of life satisfaction and net affect measure indicate – according to (5) – that the misery of unemployed men is completely cognitive by nature and can thus be interpreted as an identity loss. The figures in the lower part of Table 3 show the results for women. Irrespective of whether they are single or partnered, they also report lower life satisfaction when unemployed, but they also experience a lower net affect. Hence, we cannot make qualitative statements concerning identity loss purely from unemployment.

**Table 3**: Differences in life satisfaction and net affect by sex and partnership status

	Measure	Single (1)	Partnered (2)
D.C.	$\Delta LS$	-1.383*** (0.429)	-3.380*** (0.343)
Men	$\Delta NA$	0.153 (0.548)	0.557* (0.321)
***	$\Delta LS$	-3.041*** (0.348)	-2.457*** (0.328)
Women	$\Delta NA$	-0.642 (0.426)	-0.354 (0.405)

Source: Knabe et al. (2012), selected figures from table 2.

Note: LS: life satisfaction, NA: net affect. Standard errors in parentheses. The differences  $\Delta$  equals the difference of the average values reported by the unemployed and employed persons. \* denotes significance at the 10% level, \*\* at the 5% level, and \*\*\* at the 1% level.

Identity may also depend on the employment status of the partner. We also calculated the changes in the two well-being measures, depending on whether the partner is employed or unemployed. The results are reported in Table 4. Men face the largest drop in life satisfaction from unemployment when their partner is employed ( $\Delta LS^{men} = -3.650$ ), but the largest gain in affective well-being ( $\Delta NA = +2.480$ ). This is strong evidence that for men, the size of the identity loss depends on the family status. Women with an employed partner also face an identity loss, but the differences in the two well-being measures – though they also go into opposite directions – are much smaller.

**Table 4**: Differences in life satisfaction and net affect by employment status of the partners

	Measure	Partner employed (1)	Partner unemployed (2)
D.//	$\Delta LS$	-3.650*** (0.592)	-2.536*** (0.675)
Men	$\Delta NA$	2.480*** (0.446)	0.456 (0.878)
Woman	$\Delta LS$	-1.613*** (0.383)	-4.109*** (0.570)
Women	ΔΝΑ	0.579 (0.549)	-1.606 (1.078)

Source: Knabe et al. (2012), selected figures from table 3.

Note: LS: life satisfaction, NA: net affect. The differences  $\Delta$  equals the difference of the average values reported by the unemployed and employed persons. Standard errors in parentheses. \* denotes significance at the 10% level, \*\* at the 5% level, and \*\*\* at the 1% level.

In relation to an unemployed partner, personal unemployment affects men and women differently. Men lose less in life satisfaction if they become unemployed when their partner is also unemployed, compared to when their partner works. Women, by contrast, suffer more from unemployment when their partner is unemployed. The reported average scores of the net affect of unemployed men and women (not reported here) show lower affective well-being when the partner is unemployed. These figures do not allow us to draw any conclusions about identity effects. It is therefore necessary to also look at the regression analysis for the model described by equation (6). The stronger assumptions made there allow us to identify identity effects for all groups. The results are listed in Table 5.

 Table 5: Regression results (controlling for differences in emotional well-being)

	Life Satisfaction			
	men	women	partnered men	partnered women
Unemployed	-0.510 (0.493)	-1.898*** (0.404)	-4.311*** (0.524)	-1.184*** (0.398)
Partner	0.757* (0.405)	-0.133 (0.358)		
Unemployed * Partner	-2.299*** (0.509)	0.406 (0.417)		
Unemployed partner			-0.259 (0.571)	-0.161 (0.767)
Inactive partner			0.655 (0.503)	-0.175 (0.895)
Unemployed * Unemployed partner			1.656** (0.761)	-0.877 (0.849)
Unemployed * Inactive partner			2.198**	-0.782 (1.028)
Net Affect	0.275*** (0.046)	0.344***	0.306***	0.371***
Demographic controls	age and age <sup>2</sup> , health, educational attainment, number of children, (log) household income			
Observations R-squared	357 0.497	350 0.556	199 0.586	181 0.665

Source: Knabe et al. (2012), Table 6.

Note: OLS, standard errors in parentheses. \* denotes significance at the 10% level, \*\* at the 5% level, and \*\*\* at the 1% level. The reference category in columns 1 and 2 is "employed, single"; in columns 3 and 4 it is "employed with an employed partner".

Single men barely lose identity when they are unemployed, while single women face a strong decline in identity. Partnered unemployed men suffer a huge loss in identity while for women, partnership barely makes a difference in the identity loss from unemployment. If anything,

living with a partner appears to raise the identity utility of unemployed women, whereas it reduces that of employed women. Unemployment of the partner is associated with an insignificant negative identity effect for employed men and women. For unemployed men, however, the partner's unemployment is associated with a higher identity utility. The opposite result holds for unemployed women. The interaction effect between own unemployment and unemployment of the partner is significantly positive for men (1.656). This positive interaction effect confirms Clark's (2003) interpretation that unemployed men suffer less from not meeting the social norm of being in employment when their wives are also unemployed.

The proximity of interaction effects where the partner is either unemployed or inactive suggests that it is not so much the unemployment of a partner that affects how strongly a person suffers from his or her own unemployment. Rather, it is seeing one's partner leaving the house for work every morning that has a negative effect. Whether the partner stays at home because he or she is unemployed, or whether the partner has chosen voluntarily not to work, does not make a significant difference for the impact of one's own unemployment on one's identity utility.

Affective well-being is hardly influenced by family status. Hence, the changes in life satisfaction must be cognitive in nature, and they thus represent identity effects. The differences in these identity effects provide suggestive evidence that traditional gender roles matter substantially for the impact of unemployment on the identity utility of people living in partnerships. Traditional gender roles are still persistent in a person's self-concept. Partnered men might feel more unhappy when unemployed because they deviate more from their gender role as "breadwinner". This loss of identity is exacerbated when the partner is working. When a man's status as provider for the household is taken from him, his position may be challenged by other family members, in particular by a working partner who takes on the role of the provider. By contrast, single women seem to feel a stronger social norm to be employed when they have to make their own living, whereas living in a partnership makes it harder for the environment to distinguish between stigmatized unemployment and voluntary inactivity due to intra-household division of labor. For women, it is thus easier to self-categorize as "housewife" or "mother" rather than "unemployed", in which case the prescriptions of their respective social role places less emphasis on being employed (see McFadyen 1995). These results confirm the identity theory model sketched in Figure 1; whereas men can rarely escape the subgroup 'unemployed', partnered women can partly restore identity by categorizing themselves into the subgroup 'domestic work'.

The results reviewed in this section highlight the different avenues through which unemployment affects subjective well-being, and the different ways in which changes in identity are affected by life circumstances. To yield a better understanding of the individual cost of unemployment, it is essential to pay closer attention to the multi-dimensionality of subjective well-being, as this allows us to gain new insights into the determinants of the misery of those who want to work.

#### 8. Changing social categories

In Hetschko et al. (2011), we apply a third identification strategy by asking what happens when unemployed people restore their identity by moving into the more inclusive social categories in Figure 1, i.e. from the social category 'working age' into the social category 'retirement'. The retirement process of formerly unemployed persons comes close to a natural experiment. Daily routines do not change, disposable income hardly changes, and most other life circumstances, including personality factors, are relatively invariant in the short time interval immediately before and after retirement. Future income uncertainty has resolved so that the only relevant change is the switch of the individual's social category from "working age" to "retirement age". Thus, by assuming that  $\Delta V_j + \Delta E \sum_{t=1} V_j(t) = 0$ , we obtain from applying equations (7) or (8)

$$sign(\Delta I_i) = sign(\Delta LS_i)$$
.

#### 8.1 Retiring from unemployment

The main hypothesis tested in Hetschko et al. (2011) is that, since the unemployed give up the aspiration of having a job when entering retirement, the subsequent change in the relevant social norm causes the life satisfaction of an unemployed person to rise upon retirement; after retirement, they can comply with their new social category's norm after retirement, i.e. they are not supposed to work anymore.

Using data from the German Socio-Economic Panel from 1984-2009, we follow the same persons from their working life into their retirement years and find that, on average, employed people maintain their life satisfaction upon retirement. Figure 2 shows the time path of average reported life satisfaction of long-term unemployed people and compares them with the life satisfaction of employed people around the transition to retirement. While the life satisfaction of employed people remains fairly stable at a relatively high level of life satisfaction (7.1-7.2), the average reported life satisfaction of the unemployed rises sharply

(by approximately 0.4 points) directly after retirement and remains on this higher level afterwards. This suggests that, since little changes in the life circumstances and expectations of unemployed people upon retirement, retirement allows them to at least partially regain identity, because switching social category restores their norm conformity.

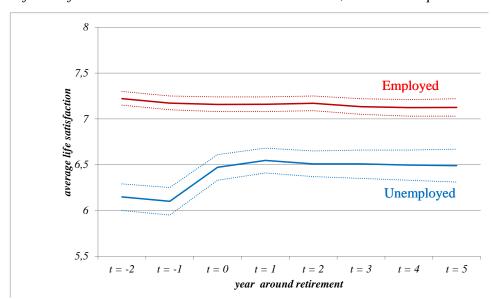


Figure 2: Life satisfaction around the transition to retirement, unbalanced panel

Source: Hetschko et al. (2011), Figure 1.

Note: blue line = average life satisfaction of the employed; red line = average life satisfaction of the long-term unemployed; dashed lines = 95% confidence intervals, retirement takes place between t=-1 and t=0.

The regression analysis, summarized in Table 6, confirms the basic result. In addition, it highlights that both gender differences and differences between people with and without prior unemployment experiences matter. Unemployed men and women, in particular those with prior unemployment experiences, benefit substantially when they can leave unemployment and become retirees.

**Table 6:** Life satisfaction change when retiring, by former employment status

Unemployed in t = -1	Both sexes	Men	Women
without former unemployment experience	0.22** (0.11)	0.28** (0.14)	0.12 (0.18)
with former unemployment experience	0.38*** (0.13)	0.36** (0.17)	0.39* (0.20)

Source: Hetschko et al. (2011), Table 3.

Note: Standard errors in parentheses; \* denotes significance at the 10% level, \*\* at the 5% level, and \*\*\* at the 1% level. For the details of the underlying regression specification, see Hetschko et al. (2011), Table 2.

#### 8.2 *Is the identity loss enduring?*

The identity loss people face as long as they are unemployed constitutes a substantial part of the total costs of unemployment. The total cost of unemployment, however, may be even higher when the experience of unemployment has negative effects on well-being beyond the time of unemployment. Identity utility thus may not only be affected by contemporaneous factors but may also depend on retrospective assessments of one's past achievements. Figure 2 indicates that this may indeed be the case, as the well-being of formerly employed and unemployed retirees converges only partially. A possible explanation is that the unemployed continue to suffer from previous unemployment, as past achievements remain part of the social category's ideal. However, in Figure 2, the comparison is cross-sectional, and the difference might be explained by factors other than the retrospective loss in identity derived from unemployment experience directly before retiring. A large share of the variation in life satisfaction between individuals could also be explained by time-invariant personal characteristics like personality traits or dispositions (Lykken and Tellegen 1996), whilst crosssection regressions cannot control for potential reverse causality; a person with lower baseline happiness due to personality traits might have lower employment prospects and would thus be more likely to retire from unemployment.

**Table 7:** Retrospective identity?

	Men	Women
without former unemployment experience	0.11 (0.07)	0.06 (0.09)
with former unemployment experience	-0.07 (0.14)	0.18 (0.17)

Source: Hetschko, Knabe and Schöb (2011), Table 6.

Note: Standard errors in parentheses. For the details of the underlying regression specification,

see Hetschko et al. (2011), Table 5.

To overcome this problem, in Hetschko et al. (2011), we run an individual fixed effects OLS regression that captures time-invariant individual differences in life satisfaction (i.e. the baseline happiness). Table 7 reports the results of this estimation. Since the regression allows for individual differences in the constant term of the regression equation, which in our case represent an individual's life satisfaction while employed, we can interpret the regression coefficients on the retirement indicators as the differences in life satisfaction between the time after retirement and the life satisfaction in years where the individual was still working. We

then calculate the differences in changes for those who retire out of unemployment and those who retire out of employment. For instance, the value 0.11 for those individuals who were unemployed directly before retirement indicates that their life satisfaction after retirement increased by 0.11 points more (compared to the life satisfaction they reported while they were still in employment) than did the life satisfaction for those who retired out of employment. All figures in Table 7 show small and statistically insignificant differences. Since the life satisfaction of the former employed barely changes, the result implies that the unemployed return to, or even go beyond, their baseline level of well-being. The fact that the former unemployed report lower life satisfaction than the formerly employed therefore cannot be ascribed to the last unemployment experience, but to other factors such as personal traits or previous unemployment experiences. However, since the results also show no differences between those with and without previous unemployment experiences, it also seems to be the case that the mere fact of 'having been unemployed once' does not lead to a permanent decline in identity utility.

These results suggest that the experience of unemployment directly before retirement does not cause lower subjective well-being once one has retired. This casts doubts on the idea that unemployment causes identity utility to fall permanently. There seems to be no backward-looking remorse about a spoilt working career. Rather ironically, it is hope (the hope to be reemployed) that keeps the unemployed unhappy while unemployed, and it is only when hope fades that they will recover.

#### 9. Concluding remarks

The different results presented in the last sections show that the identity framework provides an appropriate tool to learn more about the essence of the unemployed's misery in general, and the importance of identity in particular. Akerlof and Kranton (2000) argued that an identity-augmented utility function allows us to distinguish four different changes by which total utility can be affected by changing one's identity utility.

Firstly, the identity framework accounts for identity-based payoffs derived from peoples' own actions; these effects can be empirically confirmed. Being laid off leads to the self-categorization of 'being unemployed'. Enshrined as one of the 'unemployed', the individual accentuates the prototypical characteristics of this categorization, suffering from its attendant loss in identity. The constraints of individual actions for those who want to work but cannot

find work strengthens these effects. Thus, we can conclude that unemployment primarily reduces identity-based rather than affect-based utility.

Secondly, the identity-augmented utility function takes account of externalities that affect identity utility. Clark's (2003) findings on regional unemployment, where the unemployment of others are shown to affect not only the probability of re-employment but also the degree of norm conformity, as well as our results (Knabe et al. 2012) on gender-specific differences in identity derived from employment, and the impact of partners' employment on identity, demonstrate the importance of the role social embeddedness and the aligned 'new type of externality' play in determining well-being.

Thirdly, the possibilities in choosing one's identity, as well as the constraints on doing so, are crucial for identity utility and thus for the total individual cost of unemployment. Two results elucidated in this survey presented overwhelming evidence for this. Traditional gender roles still seem to be internalized in individual self-concept. Partnered men consider themselves as the breadwinner responsible for the family's material well-being. Given the difficulty in re-defining this familial role, men have little or no opportunity to construct another identity. Partnered women, by contrast, may escape the 'unemployed' social category by self-categorizing themselves into higher-status categories such as "housewife" or "mother". The elderly unemployed also have the possibility of fully escaping their low-status group by leaving the 'working age' social category and redefining themselves as retirees. The empirical results indicate that this change in identity allows them to completely restore the identity they had in the working age group, as long as they were in employment previously, and thus adhered to this group's prescription.

Finally, Akerlof and Kranton (2000) also mention that third parties may generate enduring changes in these payoffs referring, as an example, to public policies. Indeed, it is tempting to argue that the research surveyed in this paper suggests that public policy should (also) engage in changing the way in which social embeddedness happens and the way in which it is perceived. But such conclusions are not justified. The results tag the main determinants of the private cost of unemployment, but so far they do not tell us anything about how to alleviate the misery of the millions who suffer through want of work.

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