A test of Jahoda’s latent deprivation model with persons who are out of the labor force

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Abstract

We tested Jahoda’s latent deprivation model with employed persons, unemployed persons, and persons who are out of the labor force (OLF). The data were collected in a web-based survey. According to Jahoda’s model employment is the main provider of five specific categories of experience that are important for psychological well-being, i.e. time structure, social contact, collective purpose, status, and activity. As expected, deprivation of these so-called latent functions correlated with distress not only among employed and unemployed persons, but also among OLF-persons. The correlation between latent deprivation and distress was significantly larger than the correlation between financial difficulties and distress. Furthermore, OLF-persons reported significantly more latent deprivation than employed persons, but significantly less than unemployed persons. Latent deprivation also mediated the negative effects of unemployment and OLF-status on mental health.

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Unemployed persons usually show an impaired mental health in comparison to employed persons (Paul & Moser, submitted for publication; McKee-Ryan, Song, Wanberg, & Kinicki, 2005). This finding can be explained by Jahoda’s (1982) latent deprivation model, proposing that unemployed people suffer because they are deprived of employment and its positive psychological effects. The purpose of the present paper is to test several important predictions of Jahoda’s model with a sample that includes persons who are out of the labor force (OLF), a design that is rare in this line of research.

Jahoda stated that, while people primarily engage in paid work to earn their living (the manifest function of employment), they also profit from five latent functions that are “unintended by-products” (Jahoda, 1981, p.188) of employment. These latent functions are time structure, social contact, collective purpose, social identity/status, and activity. Jahoda (1984) argued that people “have deep seated needs for structuring their time use and perspective, for enlarging their social horizon, for participating in collective enterprises were they can feel useful, for knowing they have a recognized place in society, and for being active” (p.298). Job loss leads to deprivation of both, manifest as much as latent functions, but it is primarily the deprivation of the latent functions that causes distress.

The latent deprivation model received some empirical support recently by studies showing that access to latent functions is indeed correlated with well-being (e.g. Creed & Mcintyre, 2001; Creed & Reynolds, 2001; Haworth & Paterson, 1995). However, studies testing Jahoda’s model usually examined groups of unemployed and/or employed persons, implicitly restricting her theory to persons who are members of the labor force. This restriction may be inappropriate, as according to Jahoda the latent functions of employment correspond to general human needs. In other words: All people need time structure, social contact, status etc. in order to be psychologically healthy, not only members of the workforce. Therefore, one can predict that a significant correlation between access to the latent functions and mental health should exist not only among employed and unemployed persons, but also among persons who
are out of the labor force such as homemakers, students, and retirees. To our knowledge, this assumption has never been tested. However, such a correlation would give further support to the generalizability of Jahoda’s model.

An important and controversial characteristic of Jahoda’s model is the notion that – in contemporary societies - the deprivation of latent functions of employment is more important in explaining the negative mental health effects of unemployment than the deprivation of the manifest function. In contrast to this, other theorists see poverty, i.e. the deprivation of the manifest function, as the main cause of unemployment-related distress (Fryer, 1986, 1997).

Empirical results concerning this question are inconclusive: While, for example, Creed and Reynolds (2001) found stronger effects for latent deprivation than for manifest/economic deprivation, the opposite was found by Brief, Konovsky, Goodwin and Link (1995). Thus, additional empirical evidence is needed in order to clarify this important question.

Furthermore, the assumption that latent deprivation is more important for mental health than manifest deprivation has never been tested with OLF-persons.

As a dedicated socialist, Jahoda’s attitudes towards work and employment were very positive. She recognized employment as the only institution in modern societies that provides the five latent functions in a sufficient extent: “participation in other institutions, e.g., organized religion or voluntary associations, also provides one or more of these categories of experience, but they are less entrenched, less regular, less controlled, and not linked to the economic necessity for making one’s living” (Jahoda, 1988, p.17). Therefore, employed persons should have more access to the latent functions of employment than all kinds of persons who are not employed. This includes not only unemployed persons, but also students, homemakers, retirees, and other persons who are out of the labor force. In line with the theory, significant differences between employed and unemployed persons have already been demonstrated (e.g. Creed & Reynolds, 2001; Miles, 1983; Waters & Moore, 2002a). However, comparisons between employed and OLF-persons are rare and inconclusive (Evans
Banks, 1992; Henwood & Miles 1987). Some of the expected differences between employed persons and OLF-persons were found in these studies, but the majority of comparisons was not significant, probably due to unknown/unsatisfactorily reliabilities of scales and small sample sizes. Thus, additional data are required to answer the question for a possible latent deprivation among OLF-persons.

Although not explicitly stated, Jahoda’s model obviously is a mediation model: Employment provides access to the latent functions which, in turn, have positive effects on mental health. However, scholars usually did not directly test this mediation hypothesis with appropriate methods such as the ones described in Baron and Kenny (1986). We therefore added such an analysis to our study.

Thus, we propose the following hypotheses: (1) Deprivation with regard to the latent functions of employment is associated with reduced mental health among employed persons, unemployed persons, and persons who are out of the labor force; (2) latent deprivation has a stronger impact upon mental health than manifest/economic deprivation; (3) unemployed people and persons who are out of the labor force are characterized by increased latent deprivation and increased distress in comparison to employees; (4) latent deprivation mediates negative mental health effects of unemployment and of being out of the labor force.

Method

Participants

The sample was drawn from an online access panel maintained at the university of Erlangen-Nuernberg, Germany. Members of this panel (N = 1,313) were invited and 658 (50.1%) participated. Data sets from 85 persons who did not finish the questionnaire were deleted. The final sample consisted of 271 employed persons, 27 unemployed persons, and 273 persons who were out of the labor force (of these, 214 persons were in formal education, 30 were
homemakers or on maternity leave, 19 were retirees; 6 were in military service or in community service as an alternative to military service and 4 persons were unable to work due to health problems).

The employed, unemployed and OLF-persons differed significantly with regard to age and the number of children. OLF-persons were younger and had fewer children than members of the labor force (see table 1). No significant differences between groups were found with regard to sex and the frequency of intimate relationships. All participants had the German “Abitur”. This is the highest school leaving qualification in Germany, which is attained after 13 years of schooling and entitles for tertiary education. This comparatively high educational level probably is a result of the web-based mode of data collection.

- table one about here -

*Measurement instruments*

Latent deprivation was measured with an eight-item scale published by Brief, Konovsky, Goodwin, and Link (1995) (sample item: “Most of my days are pretty unstructured”; internal consistency for the present sample: alpha = .86). Manifest deprivation was measured with a four–item scale used by Creed and Macintyre (2001) and Ullah (1990) (Sample item: “Do you have serious financial worries?”; internal consistency for the present sample: alpha = .84). Both scales have been successfully used in recent tests of Jahoda’s model in English speaking countries. Both scales were translated into German by two native German speakers who solved discrepancies by consensus decision. Then the items were back-translated by a native English-speaker, checked for content equivalence to the original version and, if necessary, reformulated. To measure mental health, we used ten items from the German version of the Zerssen depression scale (Zerssen, 1976) (Sample item: “I feel despondent and melancholic”;

internal consistency for the present sample: alpha = .75). Demographic variables (age, sex, existence of an intimate relationship and number of children) were also included.

Results

As predicted in hypothesis one, latent deprivation was associated with depression not only among employed and unemployed persons, but also among persons who are out of the labor force. All three correlations were significant and impressively large (see table 2). The correlations showed only very slight changes when demographic variables were controlled. Manifest deprivation was also significantly correlated with depression among the employed and the OLF-persons. Among the small group of unemployed persons, the correlation was similar to the correlations in the other groups, but only marginally significant. Again, there were only slight changes in the size of the correlations when demographic variables were controlled. For the employed and the OLF-persons the correlation between depression and latent deprivation was significantly larger than the correlation between depression and manifest deprivation, as predicted by Jahoda ($z = 2.93, p < .01$ and $z = 4.81, p < .001$, respectively). We could not find a significant difference between these correlations for unemployed persons ($z = 0.19, p = .42$). Thus, our second hypothesis was partly endorsed.

Using analysis of variance (ANOVA), we examined the differences in depression, latent deprivation, and manifest deprivation between individuals being unemployed, employed, or out of the labor force. The differences between the three groups with regard to depression, $F(2, 567) = 7.76, p < .00$, latent deprivation, $F(2, 566) = 15.19, p < .00$ and manifest deprivation, $F(2, 567) = 14.56, p < .00$ were significant. Table 3 shows the means and
standard deviations. Interestingly, the group of OLF-persons is ranked between the groups of employed persons and unemployed persons with regard to all three variables examined here. Post hoc Scheffé analyses revealed some interesting differences between the groups. Employed persons were characterized by particularly low levels of latent deprivation, significantly different from both other groups. OLF- persons reported levels of latent deprivation between employed and unemployed persons, while unemployed persons clearly were most deprived of the latent functions of employment and reported levels that were significantly higher than both other groups. With regard to manifest deprivation, employed persons and OLF-persons were similar, but unemployed persons reported significantly elevated levels in comparison to both other groups. Furthermore, employed persons reported significantly less severe depression symptoms than both other groups did.\(^1\) Thus, hypothesis three was clearly endorsed by the results: Employment was associated with reduced latent deprivation as well as reduced distress in the present sample in comparison to unemployment and OLF-status.

We used the methods described in Baron and Kenny (1986) to conduct the mediator tests. Two tests were conducted, one to check whether latent deprivation mediates the negative mental health effects of unemployment (in comparison to employment), and one to check whether latent deprivation mediates the negative mental health effects of being out of the labor force (in comparison to employment).

The first mediator test revealed that the negative mental health effects of unemployment are negligible when latent deprivation is controlled (table 4). With \(z_{ab} = 4.34\) (\(p < .01\)) the mediating effect of latent deprivation was highly significant.
The second test demonstrated that latent deprivation also mediated the negative mental health effects of being out of the labor force (table 5). With $z_{ab} = 4.10 \ (p < .01)$ this mediator effect also was highly significant. Thus, hypothesis four was endorsed by our results.

Discussion

In line with Jahoda’s assumption that time structure, activity, social contact, collective purpose, and social status are important for mental health among all people in modern societies, we found strong associations between these functions of employment and depression not only among employed and unemployed persons, but also among persons who are out of the labor force. Jahoda’s assumption that employment is the only social institution in modern societies that provides these categories of experience in a sufficient amount was also endorsed by our results, since employees had better access not only in comparison to unemployed persons, but also in comparison to OLF-persons. Furthermore, for two of the three groups, the correlation between depression and manifest deprivation was significantly smaller than the correlation between depression and latent deprivation, suggesting that latent deprivation may nowadays indeed be more important for mental health than manifest deprivation, as predicted by Jahoda. Finally, also in line with Jahoda’s model, latent deprivation mediated the negative effects of unemployment and being out of the labor force on mental health. Thus, the model was clearly endorsed by the present test using not only unemployed persons, but also OLF-persons as a comparison group to employees.
Furthermore, the present test with a German sample supports the cross-cultural validity of the model. Up to now, the model has rarely been tested in non-anglo-saxonian contexts.

A limitation of the present study may be seen in the use of an unusual, yet innovative method, i.e., a web-survey. Generally, web-studies and studies with more traditional designs reach comparable conclusions (Birnbaum, 2004), a finding that encourages us to assume that the validity of our results is not threatened by the method used here. However, two specific aspects are important to note: First, the web-design restricted our sample to participants with “Abitur” or higher education, rendering our sample non-representative to the German population and limiting generalizability. Therefore, one should be cautious with drawing conclusions concerning lower educated social groups from the present study. Second, taking part in a web-panel possibly indicates unusual high levels of general interest, activity, and collective purpose, possibly restricting the range of these latent functions (indeed, regularly helping researchers as a voluntary test person, as done by our panelists, may itself cause feelings of activity and collective purpose). Thus, the correlations with latent deprivation may have been artificially attenuated in the present study.

Another limitation may be seen in the under-representation of homemakers and retirees in our OLF-sample. However, the life situation of students is likely to be more similar to the life situation of employees than that of homemakers or retirees with regard to Jahoda’s latent functions. At least time structure, social contact, and enforced activity are provided by educational settings to a considerable degree, while this is not the case for homemakers and retirees. Thus, using a sample with a large proportion of students is a conservative test of Jahoda’s model that might have led to a slight underestimation of the difference between employees and OLF-persons with regard to latent deprivation. In other words: The results might have been even more confirming for Jahoda’s model with a smaller proportion of students in the sample.
Our result that OLF-persons have less access to the latent functions of employment than employees but more access than unemployed persons demonstrates that employment is the best provider, but not the only provider of these functions in contemporary society. This finding is interesting for researchers and practitioners concerned with unemployment, as it shows that employment can be substituted, at least to a certain degree. This finding also provides some hope to those unemployed persons with very weak chances for reemployment, for example older persons with low educational attainments who are handicapped by a physical illness, since it shows that status, social contact etc. can be achieved by other means than employment.

We conclude that the results of several empirical studies endorse Jahoda’s model now, not only the restricted one that was implicitly used in most earlier studies, but also the general version that does not exclude OLF-persons. However, important questions have not been answered yet. For example, the model has never been tested in longitudinal designs. The only longitudinal study including measures of latent deprivation we are aware of was not interested in predicting mental health, but in predicting reemployment, rendering the results irrelevant to Jahoda’s model (Waters & Moore, 2002b). Thus, it is still unclear whether latent deprivation predicts mental health in a longitudinal design.

Jahoda’s latent deprivation model is not only a theory that explains the negative mental health effects of unemployment. It also allows testable predictions concerning a central question of work and organizational psychology, i.e. the question for the psychological meanings of work and employment. Jahoda’s model added some rather insightful theoretical thinking to this line of research. Several of her assumptions have now been endorsed by empirical data.
Footnotes:

1. Using demographic variables (sex, age, existence of an intimate relationship, and number of children) as covariates in an ANCOVA did not change the results (not reported here).
References


### Table 1: Demographic characteristics

<table>
<thead>
<tr>
<th></th>
<th>Employed (n=269-270)</th>
<th>Unemployed (n=27)</th>
<th>Out of labor force (n=271-273)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>36.8 (9.0)(^a)</td>
<td>34.7 (10.2)(^b)</td>
<td>28.2 (9.6)(^{ab})</td>
</tr>
<tr>
<td>Sex (percentage females)</td>
<td>43 %</td>
<td>48 %</td>
<td>52 %</td>
</tr>
<tr>
<td>Serious relationship?</td>
<td>71.6%</td>
<td>66.7%</td>
<td>62.9%</td>
</tr>
<tr>
<td>Number of children</td>
<td>0.7 (1.1)(^a)</td>
<td>1.1 (1.4)(^b)</td>
<td>0.4 (1.0)(^{ab})</td>
</tr>
</tbody>
</table>

*Note:* Means in the same row that share subscripts differ at p<.05 in the $\chi^2$-test or the Scheffé-test; standard deviations in parentheses. NEU!!!

### Table 2: Intercorrelations

<table>
<thead>
<tr>
<th></th>
<th>Employed (n=269-270)</th>
<th>Unemployed (n=21-27)</th>
<th>Out of labor force (n=273)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression (1)</td>
<td>.50**</td>
<td>.30**</td>
<td>.65**</td>
</tr>
<tr>
<td>Latent deprivation (2)</td>
<td>.52**</td>
<td>.21**</td>
<td>.66**</td>
</tr>
<tr>
<td>Manifest deprivation (3)</td>
<td>.33**</td>
<td>.23**</td>
<td>.38**</td>
</tr>
</tbody>
</table>

*Note:* + = p ≤ .10; * = p ≤ .05; ** = p ≤ .01 (two-tailed), below the diagonal bivariate correlations (n = 27 - 273); above the diagonal partial correlations controlling for sex, age, existence of an intimate relationship and number of children (n = 21 - 264).
Table 3: Depression, latent deprivation and manifest deprivation

<table>
<thead>
<tr>
<th></th>
<th>Employed (n=296-270)</th>
<th>Unemployed (n=27)</th>
<th>Out of labor force (n=273)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>1.80 (0.36) ab</td>
<td>2.06 (0.54) b</td>
<td>1.90 (0.45) a</td>
</tr>
<tr>
<td>Latent deprivation</td>
<td>2.05 (0.87) ab</td>
<td>2.96 (1.24) ac</td>
<td>2.40 (1.07) bc</td>
</tr>
<tr>
<td>Manifest deprivation</td>
<td>2.02 (0.88) a</td>
<td>3.00 (1.16) ab</td>
<td>2.17 (0.91) b</td>
</tr>
</tbody>
</table>

Note: Means in the same row that share subscripts differ at p < .05 in the Scheffé-test; standard deviations in parentheses.

Table 4: latent deprivation as a mediator of the negative mental health effects of unemployment

<table>
<thead>
<tr>
<th>Prediction of depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R^2$</td>
</tr>
<tr>
<td>Step 1:</td>
</tr>
<tr>
<td>unemployed/employed</td>
</tr>
<tr>
<td>latent deprivation</td>
</tr>
</tbody>
</table>

Note: * = p < .05, ** = p < .01; n = 296.
Table 5: latent deprivation as a mediator of the negative mental health effects of being out of the labor force

<table>
<thead>
<tr>
<th>Prediction of depression</th>
<th>$R^2$</th>
<th>adj. $R^2$</th>
<th>$\Delta R^2$</th>
<th>Beta</th>
<th>$t$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OLF / employed</td>
<td>.02</td>
<td>.02</td>
<td>.02**</td>
<td>.13</td>
<td>3.08**</td>
</tr>
<tr>
<td><strong>Step 2:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OLF / employed</td>
<td>.37</td>
<td>.37</td>
<td>.36**</td>
<td>.02</td>
<td>.07</td>
</tr>
<tr>
<td>latent deprivation</td>
<td></td>
<td></td>
<td></td>
<td>.61</td>
<td>17.44**</td>
</tr>
</tbody>
</table>

*note: * = p < .05; ** = p < .01; n = 542.*