Religious Attendance Buffers the Impact of Unemployment on Life Satisfaction: Longitudinal Evidence from Germany

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This research used longitudinal data from the German Socio-Economic Panel Study (SOEP) to examine whether religious attendance buffers the impact of unemployment on life satisfaction. Fixed effects models following 5,446 individuals up to three years after the transition to unemployment yielded two central findings. First, higher frequency of religious attendance was associated with smaller drops in life satisfaction. Second, only those who attended religious services on a weekly basis adapted to unemployment. These results suggest that religious attendance on a weekly basis can mitigate the psychological impact of unemployment.

Keywords: unemployment, job loss, religion, religious attendance, well-being, life satisfaction, SOEP.

Introduction

Unemployment is a potent stressor. Ever since the Marienthal study (Jahoda, Lazarsfeld, and Zeisel 1971), hundreds of empirical studies have shed light on the negative impact of unemployment on health, well-being, and related outcomes (McKee-Ryan et al. 2005; Paul and Moser 2009). Less attention has been devoted to the potential sources of individual differences in the effects of unemployment. In this study, we explored whether religiosity is one such source. Using large-scale longitudinal data from Germany, we investigated whether religious attendance buffers the negative impact of unemployment on life satisfaction, following individuals who experienced a transition to unemployment over a period of up to three years.

Theoretical Background

Unemployment and Life Satisfaction

Unemployment entails not only income losses but also nonpecuniary costs that render it a powerful stressor. The latent deprivation model (Jahoda, Lazarsfeld, and Zeisel 1971) posits that unemployment deprives individuals of five important latent functions of employment in modern societies: time structure, social contact, collective purpose, status, and activity. A substantial literature now documents the detrimental effect of unemployment on subjective well-being. In

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their meta-analysis based on 323 independent samples, Paul and Moser (2009) have estimated the average cross-sectional effect of unemployment across affective and cognitive indicators of subjective well-being at $d = -0.51$. Unemployed individuals were more than twice as likely to experience psychological disorders as employed people (34 percent vs. 16 percent). An earlier meta-analysis has revealed that unemployed individuals showed lower levels of mental health and life satisfaction (McKee-Ryan et al. 2005).

Longitudinal evidence further suggests that those who remain in unemployment experience long-term reductions in well-being (Paul and Moser 2009). A recent meta-analysis on adaptation to life events has shown that unemployment led to a strong initial drop in cognitive well-being (i.e., life satisfaction), followed by an extended adaptation period (Luhmann et al. 2012); on average, long-term unemployed people reached pre-event levels of cognitive well-being approximately three years after the transition to unemployment. Hence, persistent unemployment entails long-term reductions in well-being, even though some people may eventually adapt to this situation.

In view of the high prevalence of unemployment and its substantial and persistent impact on subjective well-being, it is important to consider what individual and social resources may help people to cope with this experience. We propose that religiosity may be one such resource.

**Stress-Buffering Effects of Religiosity**

A substantial literature attests to salutary effects of religiosity in coping with a variety of stressors (Pargament and Cummings 2010). This research has mainly focused on health-related stressors. Some evidence suggests, however, that religiosity might also foster coping with socioeconomic stressors. Studies using a stress-buffering paradigm have revealed that religiosity, variously measured, mitigates the negative impact of subjective and objective financial strain (Bradshaw and Ellison 2010; Krause 2006), occupational uncertainty (Lechner et al. 2013), and living in deteriorated neighborhoods (Krause 1998) on different aspects of well-being.

There is good reason to assume that religiosity may also mitigate the psychological impact of unemployment. Previous research has suggested a number of pathways through which these salutary effects may come about (Ellison and Levin 1998; Hill 2010). First, religious communities may serve as a conduit for social support to which members can turn for advice and assistance in times of need. Notably, church-based social support appears to be even more effective than support received in secular settings (Krause 2006). Second, in addition to these social resources, religiosity may also enhance psychological resources that help in coping with unemployment, such as personal efficacy, optimism, and a sense of meaning and purpose in life that is unrelated to material success. Third, religiosity may expand individuals’ coping repertoire by a number of specific religious coping behaviors (i.e., engaging in religious activities) that shift the focus from stressors or reappraise them as challenges given by God (Pargament and Cummings 2010).

Despite these theoretical arguments, there is a lack of empirical evidence addressing the potential stress-buffering effects of religiosity in relation to unemployment. Only few studies are informative in this regard. Shams and Jackson (1993) have found that religiosity buffered the association between unemployment and subjective well-being in a sample of 140 British Asian Muslims. Clark and Lelkes (2005) analyzed multicountry data from the European Social Survey (ESS) and the British Household Panel Survey (BHPS). They found the negative impact of unemployment on life satisfaction to be less pronounced among individuals of any religious denomination, compared with those who were unaffiliated. However, neither prayer nor religious attendance exerted buffering effects among respondents in the ESS. Stress-buffering effects of religious attendance emerged only among women in the BHPS data. Finally, a study using the World Values Survey revealed that belonging to a religious denomination, as well as higher levels of religiosity, mitigated the association between unemployment and life satisfaction in richer countries (GDP per capita > $10,000) but not in poorer countries (Okulicz-Kozaryn 2010).
This Study

In sum, the empirical evidence concerning the potential stress-buffering role of religiosity in relation to unemployment is still scarce and inconclusive. Moreover, extant studies have almost exclusively relied on cross-sectional designs. Despite their merits, these studies do not provide sufficient insight into the temporal nature of religiosity’s potential stress-buffering effects. Specifically, how does religiosity influence the initial reaction to unemployment, as well as the subsequent adaptation to this condition over time? Focusing on religious attendance as one of the key dimensions of religiosity (Hall, Meador, and Koenig 2008), we addressed this question using large-scale, long-running panel data from Germany. These data allowed us to test our guiding hypothesis, that is:

H1: Religious attendance buffers the negative effect of unemployment on life satisfaction, cushioning initial drops and accelerating recovery to pre-unemployment levels of well-being.

Data and Method

Data for this study came from the German Socio-Economic Panel Study (SOEP), a representative household and person survey started in 1984. In the wave of 2012, the sample consisted of 20,806 individuals in 12,347 households.

There are two reasons why the SOEP data were particularly well suited to test our guiding hypothesis. First, they include large samples observed across multiple waves, allowing us to track how unemployment affects life satisfaction over time, and to assess whether religious attendance moderates these effects. Second, the SOEP offers comprehensive information about our key analytical constructs, namely, employment status (annually since 1984), life satisfaction (annually since 1984), and religious attendance (annually or biannually since 1990).

Sample Selection

We proceeded in two steps to define an analytic sample. First, we restricted the sample to respondents observed after 1990, the first year in which the SOEP collected information on religious attendance. Second, as our research interest was in the effects of unemployment, we focused only on individuals who experienced this transition (N = 5,446). We defined the transition to unemployment as a change of employment status from any type of employment to the first observation of registered unemployment. The majority of transitions to unemployment (70.2 percent) were preceded by full-time employment, 14.7 percent by part-time employment, 12 percent by an apprenticeship, and the remaining 3.1 percent by other forms of paid employment.

For this analytic sample, we defined the window of observation as follows. First, we selected the observation of employment directly preceding the initial transition to unemployment, denoted as the starting time $T_0$. Next, we defined the transition to unemployment consistently as the subsequent observation $T_1$. Note that these transitions may occur in different survey years but always constitute the first transition to registered unemployment observed in the data. Based on this definition, the minimum number of panel observations per individual was two. For those who remained in registered unemployment, we extended the window of observation across two further panel waves ($T_2, T_3$), enabling us to track individuals up to a maximum of three consecutive years spent in registered unemployment. This timespan corresponds to a recent meta-analysis, which suggested that life satisfaction adapts to unemployment, on average, after three years (Luhmann et al. 2012). We closed the window of observation once a respondent was no longer observed in unemployment. This could occur through four pathways: (1) registered unemployment ended, for example, because a respondent reentered the workforce or entered retirement (85.4 percent); (2)
a respondent dropped out of the panel (4.3 percent); (3) the window of observation was censored at the most recent interview of 2012 (1.2 percent); or (4) a respondent died (.5 percent).

We conducted several robustness checks to assess whether the multivariate results were robust to this selection of observations. These tests showed similar results when using an unrestricted sample that included observations of those returning to employment or a more restricted sample focusing only on individuals observed over four consecutive years. Furthermore, the frequency of religious attendance before the transition to unemployment was unrelated to each of the four pathways through which individuals could drop out of our analytical sample.

**Measures**

**Religious Attendance**

The focal predictor in this study, religious attendance, was based on a survey question asking respondents to indicate how frequently they attended religious services and events. Depending on the year of survey, the variable had five or six response categories, ranging from “never” to “several times a week” or “daily,” respectively. To define a consistent measure across panel waves, we recoded the variable into three dummy variables capturing attendance (1) at least once a week, (2) at least once a month, or (3) less frequently. The reference category comprised individuals reporting that they never attended religious services.

We treated religious attendance as a time-constant variable. Because the respective survey question was asked at least biannually, a valid measure of religious attendance was obtained for each individual either at \( T_0 \) (i.e., the year before transition to unemployment) or at \( T_1 \) (i.e., the initial transition to unemployment). If available, we used religious attendance measured at \( T_0 \) (64.3 percent); if not, we used the measure at \( T_1 \) (35.7 percent). Overall, 286 (5.3 percent) respondents reported religious attendance at least once a week, 323 (5.9 percent) at least once a month, and 1,308 (23.2 percent) less frequently. The remaining 3,572 (65.6 percent) respondents in the reference group never attended religious services.

**Life Satisfaction**

Life satisfaction, the cognitive-evaluative dimension of subjective well-being, was assessed with the following survey question: “How satisfied are you with your life, all things considered?” Answers were given on an 11-point scale (0 = completely dissatisfied, 10 = completely satisfied).

**Controls**

We controlled for several possible confounders. Time-varying dummies captured the effects of changes in marital status (single, divorced, widowed; reference: married) and historical period (1990–1994, 1995–1999, 2005–2008, 2009–2012; reference: 2000–2004). Furthermore, we included three time-constant control variables: age at the transition to unemployment (centered at the sample mean of 39.7 years), migration background (reference: no), and region (East Germany; reference: West Germany). The latter was measured by a survey question asking respondents to indicate where they lived in 1989—the year before the reunification of Germany. All of these characteristics are related to frequency of religious attendance (higher among older people, West Germans, and migrants) and might also moderate the effects of unemployment on life satisfaction. In our fixed effects models, we included the time-varying controls as main effects and the time-constant controls as interaction effects with the time variable.

**Analytical Approach**

Our guiding hypothesis posited that religious attendance buffers the negative effect of unemployment on life satisfaction, cushioning initial drops and accelerating recovery to pre-unemployment levels of well-being. Importantly, this hypothesis refers to differential changes in life satisfaction, rather than different levels of life satisfaction.
Changes in life satisfaction across the transition to unemployment at different rates of religious attendance

Figure 1

Fixed effects regression models for panel data (Allison 2009) are consistent with this study focus, as these models trace intrapersonal change in life satisfaction. These models subtract within-person means over time from both sides of the equation (“within transformation”), thus relating variation in life satisfaction only to variation in the explanatory variables. In fixed effects models with panel data, only variables that vary over time enter the estimation. A key benefit of this approach is that it controls for all time-constant characteristics of individuals, even if these characteristics are unobserved.

To capture intrapersonal change in life satisfaction across the transition to unemployment, we used three period dummies (T1, T2, T3)—one for each year in unemployment. We defined the year before the transition to unemployment (T0) as the reference period. To examine whether religious attendance buffers the impact of unemployment on life satisfaction, we computed interactions of these time dummies with the time-constant indicator variables for religious attendance. Positive interactions between frequency of religious attendance and the time dummies would support our hypothesis, indicating that religious attendance buffers drops in life satisfaction across the transition to unemployment. By adding a constant to the model, we retained information about the levels of life satisfaction around which this variation occurred. This constant represented the estimated value of life satisfaction across all individuals in the reference period (i.e., the year before the transition to unemployment), conditioned on all covariates equaling zero.

Note: SOEP 1990–2012, release 2013. N = 5,446 individuals, N = 13,979 observations (person-years). Y-axis shows life satisfaction scores (0 = completely dissatisfied, 10 = completely satisfied). Estimates conditional on covariates from Model 1. See Table 1 for details on the estimation.
Table 1: Fixed effects model for change in life satisfaction across the transition to unemployment

<table>
<thead>
<tr>
<th></th>
<th>B</th>
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<tbody>
<tr>
<td>Time: Years unemployed (ref.: 0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–1 years</td>
<td>−.643**</td>
<td>(.055)</td>
</tr>
<tr>
<td>1–2 years</td>
<td>−.792**</td>
<td>(.087)</td>
</tr>
<tr>
<td>2–3 years</td>
<td>−.805**</td>
<td>(.123)</td>
</tr>
<tr>
<td>Religious attendance (ref.: Never)</td>
<td></td>
<td></td>
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<tr>
<td>0–1 years × Weekly</td>
<td>.359**</td>
<td>(.133)</td>
</tr>
<tr>
<td>1–2 years × Weekly</td>
<td>.467†</td>
<td>(.186)</td>
</tr>
<tr>
<td>2–3 years × Weekly</td>
<td>.631**</td>
<td>(.234)</td>
</tr>
<tr>
<td>0–1 years × Monthly</td>
<td>.240†</td>
<td>(.125)</td>
</tr>
<tr>
<td>1–2 years × Monthly</td>
<td>.281</td>
<td>(.182)</td>
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<tr>
<td>2–3 years × Monthly</td>
<td>.244</td>
<td>(.247)</td>
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<tr>
<td>0–1 years × Less frequent</td>
<td>.058</td>
<td>(.071)</td>
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<tr>
<td>1–2 years × Less frequent</td>
<td>.091</td>
<td>(.107)</td>
</tr>
<tr>
<td>2–3 years × Less frequent</td>
<td>.104</td>
<td>(.143)</td>
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<tr>
<td>Age at transition to unemployment</td>
<td></td>
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<tr>
<td>0–1 years × Age</td>
<td>.010**</td>
<td>(.002)</td>
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<tr>
<td>1–2 years × Age</td>
<td>.016**</td>
<td>(.003)</td>
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<tr>
<td>2–3 years × Age</td>
<td>.015**</td>
<td>(.005)</td>
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<tr>
<td>East Germany (ref.: West)</td>
<td></td>
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<tr>
<td>0–1 years × East</td>
<td>−.109†</td>
<td>(.065)</td>
</tr>
<tr>
<td>1–2 years × East</td>
<td>−.033</td>
<td>(.098)</td>
</tr>
<tr>
<td>2–3 years × East</td>
<td>.101</td>
<td>(.134)</td>
</tr>
<tr>
<td>Migration background (ref.: None)</td>
<td></td>
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</tr>
<tr>
<td>0–1 years × Migration background</td>
<td>−.198*</td>
<td>(.077)</td>
</tr>
<tr>
<td>1–2 years × Migration background</td>
<td>−.329**</td>
<td>(.115)</td>
</tr>
<tr>
<td>2–3 years × Migration background</td>
<td>−.315*</td>
<td>(.153)</td>
</tr>
<tr>
<td>Marital status (ref.: Married)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>−.347†</td>
<td>(.179)</td>
</tr>
<tr>
<td>Divorced</td>
<td>.302</td>
<td>(.189)</td>
</tr>
<tr>
<td>Widowed</td>
<td>−.838*</td>
<td>(.402)</td>
</tr>
<tr>
<td>Period (ref.: 2000–2004)</td>
<td></td>
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<tr>
<td>1995–1999</td>
<td>−.099</td>
<td>(.117)</td>
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<tr>
<td>2005–2008</td>
<td>.141</td>
<td>(.092)</td>
</tr>
<tr>
<td>2009–2012</td>
<td>.283†</td>
<td>(.166)</td>
</tr>
<tr>
<td>Constant</td>
<td>6.688**</td>
<td>(.094)</td>
</tr>
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</table>

Number of individuals 5,446
Number of observations 13,979

†p < .10; *p < .05; **p < .01.

Results

Figure 1 provides answers to our research question, illustrating the results from the fixed effects analysis (see Table 1 for the model). The figure shows four curves, representing estimated changes in life satisfaction for each level of religious attendance. The starting point of all curves is the constant of the model. Across subsequent observations in unemployment, the curves diverge,
revealing substantial differences in patterns of change in life satisfaction. Notably, a clear dose-response relationship emerged: the lower the frequency of religious attendance, the deeper the drop in life satisfaction after becoming unemployed, and the slower the recovery in subsequent years.

Conditional on covariates, people who attended religious services at least weekly experienced the smallest drops in life satisfaction, amounting to .284 scale points in the first year (−.643 + .359; see Table 1) and .325 scale points in the second year (−.792 + .467) of unemployment. Moreover, they were the only group that showed evidence of adaptation, as life satisfaction reverted in the direction of levels found in the reference period.

Stress-buffering effects of religious attendance emerged also among monthly attendees. Compared with weekly attendance, however, these effects were weaker, and there was no evidence of adaptation in the third year of unemployment. People who reported less frequent religious attendance did not differ from the reference group comprised of non-attendees at conventional levels of statistical significance. In the latter group, we found the deepest drops in life satisfaction, amounting to almost a full scale point in the third year consecutively spent in unemployment; compared to weekly religious attendees, the average intraindividual decline in life satisfaction among non-attendees after three years of unemployment was almost five times as large.

**DISCUSSION**

This study asked whether religious attendance buffers the psychological impact of unemployment. The answer is yes. Results of fixed effects models tracing intraindividual changes in life satisfaction over a period of up to three years after the transition to unemployment revealed that higher frequency of religious attendance was associated with lower drops in life satisfaction after the transition to unemployment. These stress-buffering effects of religious attendance corresponded to a dose-response pattern, emerging most clearly among people who reported attending religious services on a weekly basis, in line with earlier work (see Hall, Meador, and Koenig 2008). Importantly, weekly attendees were also the only group that showed signs of adaptation in the third year of unemployment.

These results have two central implications. First, with regard to research on religiosity and subjective well-being, they add to the still small body of evidence concerning the stress-buffering effects of religious attendance in relation to socioeconomic stressors (e.g., Bradshaw and Ellison 2010; Lechner et al. 2013; Shams and Jackson 1993). Together with these earlier studies, our results substantiate the claim that the salutary role of religiosity in dealing with life stress is not limited to severe health-related stressors such as cancer or adverse events such as bereavement, but extends to socioeconomic stressors. In contrast to most prior research, our study used a prospective longitudinal design, which enabled us to examine how the stress-buffering effects of religious attendance unfold over time. In doing so, we were able to show that higher frequency of religious attendance not only cushions initial drops of life satisfaction after becoming unemployed but also fosters adaptation throughout subsequent years. In this regard, our results suggest that the relative advantage of highly religious individuals in terms of life satisfaction increases with the duration of unemployment. This finding underscores the importance of longitudinal designs to unravel the size and scope of potential stress-buffering effects of religious attendance.

Second, with regard to research on unemployment and subjective well-being more generally, our results demonstrate that the average patterns of adaptation that have been reported in this literature may conceal considerable heterogeneity. In this respect, our study suggests that religious attendance is an important factor associated with individual differences in the impact of unemployment. Previous research using the same dataset and similar methods has concluded that, on average, individuals do not fully adapt to unemployment even after several years (Clark et al. 2008; Lucas et al. 2004). Our results demonstrate that some individuals—namely,
those who attend religious services at least one a week—do adapt to unemployment. This finding corroborates recent calls for greater attention to individual differences in the impact of, and adaptation to, major life events (e.g., Diener, Lucas, and Scollon 2009).

Some limitations to this study warrant future investigation. Although religious attendance is a fundamental and widely studied dimension of religiosity, important additional insight could be gained from investigating whether other dimensions of religiosity (e.g., private religious practice, religious beliefs, or religious coping) exert similar stress-buffering effects in dealing with unemployment. Although religious attendance shows the most robust associations with health and well-being (Hall, Meador, and Koenig 2008), some studies found similar stress-buffering effects for different dimensions of religiosity (e.g., Bradshaw and Ellison 2010). More research is needed to clarify which religious dimensions are most relevant to dealing with socioeconomic stressors such as unemployment. Doing so might also help to unravel the mechanisms behind the salutary effects of religiosity. Pertinent explanations suggest that religiosity promotes both specifically religious (e.g., prayer) as well as more general coping resources (e.g., church-based social support) that may foster successful coping with a variety of stressors (Ellison and Levin 1998; Hill 2010). Before any conclusions for individual or community interventions can be drawn, future research should employ more detailed measures capturing both types of resources to shed more light on the mechanisms behind the effects observed in this investigation.

Another limitation is that we had to rely on the single-item measures available in the SOEP to assess religious attendance and life satisfaction. This data limitation might introduce some bias through lower reliability and potential measurement error. Previous research, however, has alleviated this concern, suggesting that single-item measures of both religious attendance (Hall, Meador, and Koenig 2008) and life satisfaction (Sandvik, Diener, and Seidlitz 2009) are sufficiently reliable and valid. It would be desirable, however, to assess whether our results can be generalized to other measures of subjective well-being, especially affective measures, given that effects of life events on cognitive and affective measures of well-being may differ in size (Luhmann et al. 2012).

Finally, an important objective for future research is to test whether our findings can be generalized to other national contexts. Evidence suggests that effects of religiosity tend to be larger in more religious societies and in nations in which economic and existential security is lower (e.g., Diener, Tay, and Myers 2011; Okulicz-Kozaryn 2010). As Germany ranks among the least religious nations in the world and offers high economic and existential security, there is good reason to assume that the effects we found might differ in size in other national contexts.

In closing, we note that although life satisfaction is an important outcome in its own right, there is evidence to suggest that life satisfaction is, in turn, predictive of future mental and physical health problems, suicidality, and mortality even after adjusting for other risk factors (Diener, Inglehart, and Tay 2013). Given the pervasiveness of unemployment in many societies, the role of religiosity in dealing with this potent stressor is worthy of further scholarly attention.

REFERENCES


