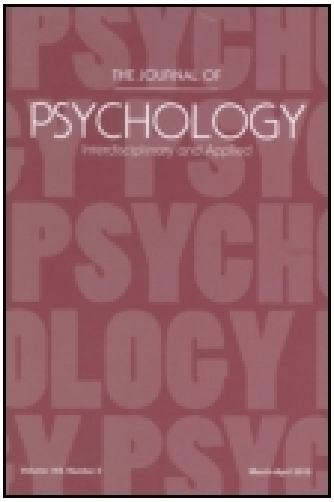


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# Time Perspective, Depression, and Substance Misuse Among the Homeless

Graham Pluck [a], Kwang-Hyuk Lee [a], Hannah E. Lauder [a], James M. Fox [a], Sean A. Spence [a] & Randolph W. Parks [a]
[a] University of Sheffield
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# Time Perspective, Depression, and Substance Misuse Among the Homeless

GRAHAM PLUCK
KWANG-HYUK LEE
HANNAH E. LAUDER
JAMES M. FOX
SEAN A. SPENCE
RANDOLPH W. PARKS
*University of Sheffield*



ABSTRACT. Using the Zimbardo Time Perspective Inventory (ZTPI; P. G. Zimbardo & J. N. Boyd, 1999), the authors found that homeless people, in comparison with a control group, had a significantly more negative outlook concerning their past and present as evinced by high Past–Negative and Present–Fatalistic scores and low Past–Positive scores on the ZTPI. However, the homeless individuals were almost indistinguishable from control participants on measures of Present–Hedonism and Future thinking. The homeless individuals had significantly higher levels of depression, with 31 out of 50 (62%) reaching criteria for probable depression. However, this finding was unrelated to their atypical time perspective. There was no significant relation between substance misuse and time perspective. Despite their current difficulties, including depression and drug abuse, the homeless individuals maintained a propensity toward future thinking characterized by striving to achieve their goals.

Keywords: depression, homeless people, personality, substance-related disorders

HOMELESSNESS IS ASSOCIATED WITH a range of medical, psychological, and social problems. Mortality rates are many times higher among homeless compared with securely housed populations (Cheung & Hwang 2004). Homeless people report high levels of loneliness, which is related to their having unfulfilling intimate relationships and feeling socially marginalized (Rokach, 2005). Consequently, they comprise some of the most socially excluded people

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*Address correspondence to Dr. Graham Pluck, Academic Clinical Psychiatry, University of Sheffield, The Longley Centre, Norwood Grange Drive, Sheffield, South Yorkshire, S5 7JT, England; g.pluck@sheffield.ac.uk (e-mail).*

in society and are vulnerable to violence and victimization (Padgett, Struening, Andrews, & Pittman, 1995).

Despite their vulnerability, many people maintain unsympathetic and negative attitudes concerning the homeless. For example, in several European countries, the general public are more likely to describe homeless people as *dangerous* than as *victims* (Brandon, Khoo, Maglajlic, & Abuel-Ealeh, 2000). Such views are likely stereotypical and merely reflective of societal prejudices. However, there may be some intrinsic factors associated with homelessness. Some researchers have suggested that among homeless populations, hedonism (Goodwin, Kozlova, Nizharadze, & Polyakova, 2004) and self-gratification (Rosenthal, Moore, & Buzwell, 1994) are particularly problematic because they increase risky sexual behavior or substance misuse. Furthermore, homeless people are generally socially excluded, and social exclusion has itself been associated with a lack of future planning and with a tendency to be overly oriented to the present (Twenge, Catanese, & Baumeister, 2003).

The concept of time perspective is an important topic in psychology (Boniwell & Zimbardo, 2003) and has been extensively studied. Using factor analysis, Zimbardo and Boyd (1999) identified five different time perspectives. The first is Past–Negative, reflecting a tendency to think of the past as aversive, focusing on unpleasant memories. In contrast, Past–Positive involves a tendency to have pleasant, sentimental, or nostalgic attitudes toward past memories. Thus, Zimbardo and Boyd suggested that there are two ways of thinking about the past: either positively or negatively. Similarly, they identified two ways of thinking about the present: Present–Hedonistic and Present–Fatalistic. The former reflects impulsiveness and risk taking, and the latter reflects a helpless and hopeless attitude to life. The final factor, Future, suggests striving to achieve future goals. Boniwell and Zimbardo (2004) argued that optimal performance in life and the attainment of happiness depend on maintaining a balance between mentally focusing on the past, the present, and the future.

In student participants, depression scores are highly correlated with all of Zimbardo and Boyd's (1999) five factors. This finding suggests that depression has a significant interaction with time perspective. Among homeless populations, there is ample evidence of depression. One large survey of homeless people in Madrid and Los Angeles found depression rates of 14.9% and 17.5%, respectively (Muñoz, Vázquez, Koegel, Sanz, & Burnam, 1998). Therefore, it is important to consider levels of concurrent depression when examining time orientation among homeless people.

Furthermore, there is a strong association between homelessness and drug addiction (Kemp, Neale, & Robertson, 2006), the latter of which may be associated with a short-term hedonistic time perspective. Indeed, an influential theory concerning chemical dependence is based on such a principle of hedonism (Wise, 1996). Apostolidis, Fieulaine, and Soulé (2006) found strong evidence of a link between substance misuse and time perspective, particularly Future thinking, in

that low scores on Future thinking may encourage initiation of and continued drug use. Therefore, we examined the relation between substance misuse and time perspective among homeless individuals.

If homeless people tend to focus on the present, then this tendency could be attributable to the day-to-day problems they experience in life, associated sadness, or even depression. Hence, we hypothesized that homeless participants would display different time perspectives and increased levels of depression in comparison with securely housed control participants. Furthermore, we hypothesized that time perspective would be related to depression and substance misuse.

## Method

### *Participants*

We recruited a sample of 50 homeless people from various homeless services around the city of Sheffield, in northern England. Of the participants, 24 (48%) had slept in a charity-based homeless shelter the previous night, 7 (14%) had slept outdoors, and 3 (6%) had slept temporarily at the homes of friends or family. The remaining 16 (32%) had slept in various temporary housing services provided by the state. Twenty-six (52%) of the participants described either alcohol or drug misuse as their primary reason for becoming homeless; 25 (50%) of the participants described regular drug use over the past month, usually heroin or crack cocaine (14 of 25, 56% of subset). As a group, they had spent a mean of 57.4 months ($SD$ = 66.0 months, range = 2–252 months) homeless over their lifetime.

We selected 50 domiciled control participants to match the demographics of the homeless sample as closely as possible. We collected data on the homeless participants first and then selected the 50 control participants from the general population to match for age and gender distributions. The control participants were pedestrians whom we approached in a central area of the city and asked if they would like to take part in a psychology research project. The locations at which we approached the control participants were in the same area as where we recruited the homeless participants.

All participants where British born and spoke English as their first language. The control group was composed entirely of White participants. Similarly, the homeless group was composed predominantly of White participants, although 2 (4%) were Black. This is broadly representative of the ethnic composition of the city of Sheffield as a whole.

### *Measures*

All participants completed the Zimbardo Time Perspective Inventory (ZTPI; Zimbardo & Boyd, 1999). The ZTPI is a 56-item self-report scale, with subscale

test–retest Pearson's *r* coefficients ranging from .70 to .80 and demonstrated predictive validity. For example, Zimbardo and Boyd (1999) found ZTPI scores to be related to hoped-for length of life, watch wearing, and goal focus amongst other things. We used the Zung Self-Rating Depression Scale (Zung, 1965) to test our hypothesis that time perspective and depression scores would be correlated. It is a 20-item self-report scale with good test–retest reliability and a Pearson's *r* coefficient of .92 (Fountoulakis et al., 2001). Its validity was established by Thurber, Snow, and Honts (2002), who found that it was able to distinguish between individuals with and without a *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (American Psychiatric Association, 1994) diagnosis of depression. Because we anticipated the homeless participants to have lower average IQs (Spence, Stevens, & Parks, 2004), we estimated IQ with the Wechsler Test of Adult Reading (WTAR; Wechsler, 2001). The WTAR provides an IQ estimation based on the reading of irregular words, and is conceptually related to the widely used National Adult Reading Test (Nelson & Willison, 1991). The WTAR is specifically designed to estimate IQ and has good split-half reliability, with Pearson's *r* coefficients ranging from .87 to .97 and test–retest reliability with coefficients ranging from .90 to .94 for different samples. The validity of the WTAR is demonstrated by its correlations ($r = .63–.80$; Wechsler, 2001) with scores on the Wechsler Adult Intelligence Scale III (Wechsler, 1997).

### *Procedure*

We administered the WTAR to all participants to estimate IQ and questioned them to gain demographic information. We then asked them to complete the ZTPI and The Zung Self-Rating Depression Scale. In addition, we recorded substance misuse histories in the homeless group. All participants gave written informed consent. The local research ethics committee approved the study.

## Results

For the between-groups comparisons, we calculated two-tailed analyses of variance with an alpha level of .05 and estimated effect size with eta squared ($\eta^2$). All correlations also used a .05 alpha level. Table 1 shows demographic details comparing the homeless and control groups, and estimated IQ, time perspective, and depression scores. The groups were well matched in terms of age and gender. As expected, the homeless participants had significantly fewer years of education, $F(1, 98 = 43.18$, $p < .001$, $\eta^2 = .306$, and lower estimated IQ scores, $F(1, 98) = 25.17$, $p < .001$, $\eta^2 = .204$, than did the control participants.

The homeless group scored significantly higher on the Past–Negative scale, $F(1, 98) = 51.54$, $p < .001$, and the Present–Fatalistic scale, $F(1, 98) = 8.93$, $p = .004$, than did the control group and had significantly lower scores on the Past–Positive scale, $F(1, 98) = 12.34$, $p = .001$. However, their scores on the

**TABLE 1. Descriptive Statistics for Demographic, IQ, Time Perspectives, and Depression Scores**

| | Homeless | | Control | |
|---|---|---|---|---|
| Characteristic or score | *M* | *SD* | *M* | *SD* |
| Age in years | 33.40 | 7.55 | 33.50 | 10.25 |
| Years of education*** | 10.32 | 2.17 | 13.16 | 2.15 |
| Estimated IQ*** | 88.32 | 16.51 | 100.64 | 5.40 |
| Past–Negative*** | 3.73 | 0.60 | 2.85 | 0.63 |
| Present–Hedonistic | 3.59 | 0.48 | 3.60 | 0.46 |
| Future | 3.02 | 0.49 | 3.08 | 0.59 |
| Past–Positive** | 3.05 | 0.65 | 3.48 | 0.57 |
| Present–Fatalistic** | 3.21 | 0.66 | 2.86 | 0.51 |
| Depression*** | 62.14 | 9.72 | 47.54 | 7.84 |

*Note.* For both the homeless group and the control group, $N = 50$ (42 men, 8 women).
**$p < .01$. ***$p < .001$.

Present–Hedonistic scale, $F(1, 98) = .016$, $p = .899$, and Future scale, $F(1, 98) = .289$, $p = .592$, were not significantly different from those of the control group (both $p$s $> .50$). In terms of effect size, Past–Negative scores had a large effect size ($\eta^2 = .345$), Past–Positive scores had a moderate effect size ($\eta^2 = .119$), and Present–Fatalistic scores had a small-to-moderate effect size ($\eta^2 = .084$). For the two nonsignificant comparisons—the Present–Hedonistic scale ($\eta^2 < .001$) and the Future scale ($\eta^2 = .003$)—the effect sizes were minimal.

Compared with the control participants, the homeless participants had significantly higher depression scores, $F(1, 98) = 68.39$, $p < .001$, $\eta^2 = .411$. Only 4 (8%) of the control group participants but 31 (62%) of the homeless group participants scored above the relatively stringent depression cutoff score of 60 recommended by Thurber, Snow, and Honts (2002). Table 2 shows the correlations between depression scores and time perspective scores. Among the homeless participants, there were no significant correlations between depression and time perspective scores, suggesting that the latter are independent of depression. Among the control participants, only the Past–Negative scale was significantly associated with depression scores ($r = .35$, $p = .013$). This positive correlation indicated that higher scores on the Past–Negative scale were associated with higher rates of depression.

To investigate the possible influence of substance misuse on time perspective, we divided the homeless sample into three groups: (a) those who had never been regular drug users ($n = 12$), (b) those who had experienced some drug use in the past but had not used heroin or crack cocaine regularly in the past year ($n = 20$), and (c) those who had used heroin or crack cocaine regularly in the past

**TABLE 2. Pearson Correlation Coefficients of the Zimbardo Time Perspective Inventory's (ZTPI; P. G. Zimbardo & J. N. Boyd, 1999) Five Time Perspective Subscale Scores With Depression Scores for the Homeless and Control Groups**

| ZTPI Scale | Homeless | Control |
|---|---|---|
| Past–Negative | .12 | .35* |
| Present–Hedonistic | .04 | .04 |
| Future | –.10 | –.16 |
| Past–Positive | –.03 | .13 |
| Present–Fatalistic | .17 | .16 |

*$p < .05$.

year ($n$ = 18). We defined *regular drug use* as using at least 4 days per week over at least a 2-week period. We found no significant differences among the different drug use groups regarding time perspective or depression, although the Present–Fatalistic scale approached significance, $F(2, 47) = 2.85$, $p = .068$, $\eta^2 = .054$. All remaining comparisons had $p$ values greater than .283.

Last, because the homeless group had lower education and estimated IQ levels, we performed further analyses using these variables as covariates. When we performed analysis of covariance calculations for the main comparisons between groups on ZTPI scores with IQ and education as covariates, the results remained essentially the same. The homeless group scored significantly higher on the Past–Negative scale, $F(3, 99) = 17.50$, $p < .001$, and the Present–Fatalistic scale, $F(3, 99) = 4.15$, $p = .008$, and had significantly lower scores on the Past–Positive scale, $F(3, 99) = 4.24$, $p = .007$. Similarly, scores did not differ significantly between the groups for either the Present–Hedonistic scale, $F(3, 99) = 1.58$, $p = .200$, or the Future scale, $F(3, 99) = .140$, $p = .936$. We also repeated the correlations between ZTPI and depression scores as partial correlations, controlling for IQ and education within the separate groups. The results were essentially the same in the homeless group, with no significant correlations. The relation between depression and Present–Fatalistic scores approached significance ($p = .094$), but the other relations all had $p$ values greater than .372. Considering the relation between ZTPI and depression scores among the control participants, the results remained the same, with the exception that the correlation between depression and Past–Negative scores only approached significance ($p = .011$).

## Discussion

Despite the difficulties of being homeless and experiencing high rates of depression and substance misuse, our homeless participants nevertheless evinced

normal outlooks concerning planning for the future and long-term gratification as opposed to current hedonism, as demonstrated by their similarity in scores on the ZTPI scales of Present–Hedonistic and Future orientation to the scores of the control participants. However, homeless participants scored significantly higher on the Present–Fatalistic orientation, indicating a feeling of helplessness and a belief that external forces control their lives. Boniwell and Zimbardo (2003) suggested that this may be a realistic and not necessarily maladaptive orientation for people living in poverty.

In one previous study, researchers described time orientation among a sample of homeless people. Epel, Bandura, and Zimbardo (1999) reported that shelter residents who scored higher on Future orientation had shorter durations of homelessness. However, these authors used a three-factor time perspective scale that predated the validated five-factor ZTPI model of Zimbardo and Boyd (1999) that we used in the current study. Furthermore, because Epel et al. did not incorporate a control group in their study, it is not possible to determine whether their homeless participants scored abnormally. Nevertheless, this is clearly a new field of investigation in homelessness studies.

A further characteristic of the time perspectives exhibited by our homeless participants is a notably negative orientation toward their past. We found that in comparison with the control participants, the mental outlook of the homeless group was characterized by less Past–Positive thinking and more Past–Negative thinking. Boniwell and Zimbardo (2003) suggested that a time perspective that is negative concerning the past is related to focusing on past aversive experiences and a lack of sentimental or nostalgic thinking. In accordance with this, homeless people often report a poor quality of life in the past and high levels of aversive experiences, such as childhood sexual abuse and violence (Spence et al., 2006).

Within the control group, there was a significant positive correlation between Past–Negative scores and depression scores. However, this relation was not significant when we repeated the analysis while controlling for participants' IQ and years of education. The negative view of the past and the Present–Fatalistic perspective among the homeless group appear to be independent of depression. None of the time-perspective scores of the homeless group were correlated with depression. Nevertheless, the self-reported high levels of depression among our homeless sample are consistent with other studies' reporting high incidences of clinical depression using standardized diagnostic criteria in this population (e.g., Muñoz et al., 1998).

Homeless participants had significantly fewer years of education and lower estimated IQ scores than did control participants (88.32 vs. 100.64, respectively). The estimated population mean of IQ scores is 100 with a standard deviation of 15, so the control group's mean IQ appears to be at the midpoint of the average range, whereas the homeless group's mean IQ is in the low-average range (Wechsler, 1999). This finding is consistent with previous studies' reporting average to low-average IQ scores among homeless samples (Spence et al., 2004).

We considered the discrepancy in IQ between the groups a possible explanation for the difference in time perspectives. However, we rejected this hypothesis because repeating the group comparisons while covarying for IQ did not change the findings. Similarly, substance misuse was not related to time perspective in our homeless sample. This finding is contrary to what has been reported in securely housed samples, in which time perspective, and particularly Future thinking, is inversely related to substance misuse (Apostolidis et al., 2006). It is possible that our homeless participants are a special case and perhaps use drugs for different reasons than do many individuals in the general population. It could be postulated, for example, that self-medication-related drug use is more common among homeless people. However, among our sample, Present–Fatalistic scores approached a significant relation to substance misuse, and a larger sample may have uncovered significant effects. Clearly, this is an issue open to further investigation.

It might appear contradictory that the homeless participants are at a level similar to that of the control participants on measures of Future orientation while reporting feelings of helplessness on the Present–Fatalistic orientation. However, these perspectives are psychometrically independent, derived by factor analysis, so this remains a viable and interesting finding. Furthermore, as previously described, a high Present–Fatalistic score may be considered normal in conditions of poverty. This raises the issue of whether the time-perspective profile reported in this study is specific to homelessness or reflective only of a group experiencing poverty. However, although the homeless participants share the experience of poverty with a sizeable proportion of the securely housed public, there are also likely to be many differences between these groups. It would be interesting to examine the influence of socioeconomic status among securely housed groups on all five scales of the ZTPI. Such an investigation would be particularly pertinent given recent interest in the widespread impact of social inequality on many aspects of psychological and physical function (e.g., Wilkinson, 2005).

In summary, the homeless participants' negative outlook on their past and fatalistic outlook on their present appear to be independent of education, IQ, depression, and substance misuse. The typical mental outlook of homeless people is perhaps surprisingly normal relating to their future. Despite their high rates of depression and other problems, homeless people remain forward-thinking. Contrary to some stereotypes, they have normal aspirations.

## AUTHOR NOTES

**Graham Pluck, PhD,** is a chartered psychologist and postdoctoral research associate in academic clinical psychiatry at the University of Sheffield, England. His interests focus on cognition and related personality traits among socially excluded groups, in particular those who are homeless or have substance misuse problems. **Kwang-Hyuk Lee, PhD,** is a lecturer in psychiatric neuroimaging, University of Sheffield. He investigates cognitive processes underlying disturbances of time perception and their neural substrates

in individuals with mental health disorders. **Hannah E. Lauder** is a medical trainee at the University of Sheffield School of Medicine, with a research interest in homelessness. **James M. Fox** is a medical trainee at the University of Sheffield School of Medicine, with an interest in clinical psychiatry. **Sean A. Spence** is professor of general adult psychiatry at the University of Sheffield, where he holds a MRC Career Establishment Grant. His research concerns the control of voluntary behavior in health and disease and uses functional and structural neuroimaging to elucidate the role of prefrontal cortex in supporting volition. **Randolph W. Parks, PhD, PsyD,** is a senior clinical lecturer in neuropsychology at the University of Sheffield School of Medicine. His research interests include the cognitive and emotional functioning of individuals who are homeless and developing brief assessment protocols to improve their access to mental health services.



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