Relationship between time perspective and job satisfaction

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Abstract: This study explores the relationships between time perspective dimensions, the big five personality traits and job satisfaction. People with higher past-positive and lower past-negative and present-fatalistic time perspectives are more satisfied with their jobs, individuals with higher present-hedonism show higher affective job satisfaction, and those with higher future time perspective show a higher cognitive job satisfaction. Results also show that time perspective dimensions and a balanced time perspective explain additional variance in job satisfaction beyond the one explained by personality traits, age and gender. Additional variance of 2.3%/1.3% for affective job satisfaction, 7.9%/3.1% for intrinsic job satisfaction, 2.9%/1.0% for extrinsic job satisfaction and 6.1%/2.4% for general job satisfaction was explained by time perspective dimensions/balanced time perspective. Results of the study can guide possible interventions to affect organisational commitment, turnover intentions and other outcomes of job satisfaction.

Keywords: time perspective; job satisfaction; personality traits; balanced time perspective; multiple regression.

Reference to this paper should be made as follows: Bajec, B. (2018) ‘Relationship between time perspective and job satisfaction’, Int. J. Human Resources Development and Management, Vol. 18, Nos. 1/2, pp.145–165.

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This paper is a revised and expanded version of a paper entitled ‘Relationship between balanced time perspective and work satisfaction’ presented at 1st International Conference on Time Perspective, Coimbra, Portugal, 5–8 September 2012.

1 Introduction

In this study, connections between the time perspective, time perspective dimensions, the big five personality traits and job satisfaction were explored. As job satisfaction is connected to individual performance in different work domains (Fisher, 2010; Judge and Kammeyer-Mueller, 2012) and as it is important to ensure the long-term efficiency and
effectiveness of organisations both in public and private sectors (Tomaževič et al., 2014),
and finally, as it is probably an important factor influencing the health of workers
(Faragher et al., 2005), it is an essential topic for individuals, organisations and policy
makers.

Time perspective is a fundamental dimension in the construction of psychological
time (Zimbardo and Boyd, 1999). It has been established as being connected to different
aspects of well-being (for review see Drake et al., 2008; Podlogar and Bajec, 2011) and it
seems that it moderates relationships between personality and well-being (Stolarski,
2016). Some studies (Antoniak, 2011; Banakou, 2015; Korff et al., 2017; Lens et al.,
2012; Ortiz, 2012; Shipp et al., 2009; Weikamp and Göritz, 2016) have shown that how
individuals focus their attention towards the past, present and future correlates with job
satisfaction. Most of the studies observing the relationship between the time perspective
and job satisfaction have dealt only with separate dimensions of the time perspective (for
example Korff et al., 2017; Lens et al., 2012; Ortiz, 2012; Shipp et al., 2009; Weikamp
and Göritz, 2016). They usually focus on the future time perspective, others have
included only one dimension of job satisfaction (for example Banakou, 2015), and none
of the studies has included personality, which could affect both the time perspective and
job satisfaction. Thus we do not know whether the time perspective could add to an
explanation for job satisfaction beyond personality traits or not.

As it has been established that the time perspective predicts life satisfaction (Zhang
and Howell, 2011) in addition to personality traits, the aim of this study was to verify
whether the same conclusions could be drawn for job satisfaction. If the time perspective
can explain job satisfaction in addition to personality traits it might be fruitful to explore
the possibilities of changing the individual’s time perspective with different interventions
(for example, changing human resource management systems, coaching and others) to
foster job satisfaction and its consequences.

1.1 Time perspective

Time perspective is a fundamental dimension in constructing psychological time, which
is based on the automatic cognitive partitioning of human experiences into past, present
and future temporal frames (Zimbardo and Boyd, 1999). It can be defined as a set of
mainly non-conscious cognitive processes in which continuous flows of experiences are
assigned to time frames that help give meaning to those experiences (Keough et al.,
1999). It is conceptualised both as a stable personality construct and as subject to change
following adversity (Holman et al., 2016; Zimbardo and Boyd, 1999) and different
interventions (Bonirwell et al., 2014; Korff et al., 2017; Seijts, 1998).

In their research, Zimbardo and Boyd (1999) found five different factors in time
perspectives that also appear in different language studies from around the world
(Liniauskaité and Kairys, 2009). The first of these factors, past-negative, reflects a
relatively negative, pessimistic view of the past; people scoring high on this factor often
think about lost opportunities and traumatic events from their past, and they experience a
lot of pain, guilt and regret, since they believe that they have made many mistakes
(Zimbardo and Boyd, 2008). The second factor, past-positive, reflects a warm,
sentimental attitude towards the past; people scoring high on this factor perceive their
past as being pleasant, and they often think and talk about pleasant experiences from their
past (Zimbardo and Boyd, 2008). The third factor, present-hedonistic, reflects a
hedonistic and risk-taking attitude towards time and life; people scoring high on this factor often seek excitement and are oriented toward immediate pleasure (Zimbardo and Boyd, 2008). The fourth factor, present-fatalistic, reflects hopelessness and a negative attitude toward life and the future; people scoring high on this factor believe that outside forces control their lives (Boniwell and Zimbardo, 2004). The fifth factor, future, denotes a general future orientation and striving for future goals; people scoring high on this factor have a strong sense of anticipation of future reward, they are motivated to work hard and they have a tendency to anticipate positive outcomes (Drake et al., 2008).

It has been shown that the different dimensions of time perspective correlate with different aspects of well-being. The past-negative dimension has been shown to correlate with happiness (Drake et al., 2008), satisfaction with life (Podlogar and Bajec, 2011; Zhang and Howell, 2011), positive and negative affect (Podlogar and Bajec, 2011) and vitality, resilience and hope (Davis and Ortiz, 2017). Past-positive correlates with happiness (Drake et al., 2008), satisfaction with life (Podlogar and Bajec, 2011), positive affect (Podlogar and Bajec, 2011) and with vitality, resilience and hope (Davis and Ortiz, 2017). Present-hedonistic correlates with happiness (Drake et al., 2008), satisfaction with life (Podlogar and Bajec, 2011), positive affect (Podlogar and Bajec, 2011) and vitality, resilience and hope (Davis and Ortiz, 2017). Present-fatalistic correlates with satisfaction with life (Podlogar and Bajec, 2011; Zhang and Howell, 2011), positive affect (Podlogar and Bajec, 2011) and vitality, resilience and hope (Davis and Ortiz, 2017). Future correlates with satisfaction with life (Podlogar and Bajec, 2011; Zhang and Howell, 2011), positive affect (Wills et al., 2001), negative affect (Podlogar and Bajec, 2011) and vitality, resilience and hope (Davis and Ortiz, 2017). Simons et al. (2016) confirmed that age is a moderator between time perspective and happiness. Zhang and Howell (2011) and Stolarski and Matthews (2016) have shown that time perspectives even predict the unique variance in life satisfaction beyond personality traits, and Sobol-Kwapinska (2016) and Stolarski (2016) have shown that it moderates and mediates the relationship between personality traits and well-being.

Table 1 Correlations between time perspective dimensions and different aspects of well-being

<table>
<thead>
<tr>
<th>Well-being aspect</th>
<th>Zimbardo time perspective inventory dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Past-negative</td>
</tr>
<tr>
<td>Happiness</td>
<td>–0.42</td>
</tr>
<tr>
<td>Satisfaction with life</td>
<td>–0.44/–0.63</td>
</tr>
<tr>
<td>Positive affect</td>
<td>–0.28</td>
</tr>
<tr>
<td>Negative affect</td>
<td>0.35</td>
</tr>
<tr>
<td>Vitality</td>
<td>–0.33</td>
</tr>
<tr>
<td>Resilience</td>
<td>–0.47</td>
</tr>
<tr>
<td>Hope</td>
<td>–0.33</td>
</tr>
</tbody>
</table>

Source: As observed in studies by Davis and Ortiz (2017), Drake et al. (2008), Podlogar and Bajec (2011) and Zhang and Howell (2011)
Satisfaction with life was assessed in studies by Drake et al. (2008), first coefficient; and Podlogar and Bajec (2011), second coefficient of correlation. Only statistically significant correlations are reported in the table.

The most optimal time perspective to achieve the highest well-being is supposed to be a balanced time perspective (Boniwell, 2005; Boniwell et al., 2010; Drake et al., 2008; Gao, 2011; Güel et al., 2015; Sobol-Kwapinska and Jankowski, 2016; Stolarski and Cyniak-Cieciura, 2016; Stolarski et al., 2014; Stolarski et al., 2016; Webster et al., 2014; Webster and Ma, 2013; Wiesman et al., 2017; Zhang et al., 2012). Zimbardo and Boyd (2008) define it as low past-negative and present-fatalistic dimensions and moderate or high positive-past, present-hedonistic and future dimensions; and Boniwell (2005) proposes it as a more positive alternative to living life as a slave to any particular temporal bias, so that people with a balanced time perspective are able to adapt their temporal mode to the situations they find themselves in. Different assessment methods of a balanced time perspective (Boniwell et al., 2010 with clustering method; Drake et al., 2008 with cut-off-points) were proposed, but the one obtaining the best results (Zhang et al., 2012) and, therefore, most commonly used, is the deviation from the balanced time perspective method (Stolarski et al., 2011). It assesses a balanced time perspective as the deviation from low past-negative and present-fatalistic dimensions and moderate or high positive-past, present-hedonistic and future dimensions, as proposed by Zimbardo and Boyd (2008).

1.2 Job satisfaction

Job satisfaction denotes one’s personal attitude about his or her job (Fisher, 2010). It is an evaluative state that expresses contentment with, and positive feelings about, one’s job (Judge and Kammeyer-Mueller, 2012). Similarly to subjective well-being, we can observe cognitive (thoughts and beliefs regarding positive and negative attributes of the job) and affective components (positive and negative feelings and emotions people associate with their jobs) of job satisfaction (Judge and Kammeyer-Mueller, 2012; Kaplan et al., 2009). It has been shown (Kaplan et al., 2009) that cognitive components of job satisfaction are more highly related to organisational citizenship behaviours than affective measures, while affective measures correlate higher with positive affect. Cognitive components can be further divided into intrinsic and extrinsic facets (Spector, 1997). Intrinsic factors are the individual’s feelings about the nature of the job tasks, while extrinsic factors are feelings about aspects of the work situation that are external to the job tasks or work. It has been shown that intrinsic job satisfaction correlates higher with work engagement (Litman-Ovadia and Balducci, 2013) than extrinsic job satisfaction, and extrinsic work satisfaction correlates higher with organisational commitment (Buitendach and De Witte, 2005) and turnover intentions (Lee, 2017) than intrinsic job satisfaction.

Job satisfaction is affected by different factors. It seems that about 30% of the overall variance in overall job satisfaction is genetically based (Fisher, 2010). Another dispositional contributor to job satisfaction is personality (Fisher, 2010), predominantly neuroticism ($r = -0.29$), extraversion ($r = 0.25$) and conscientiousness ($r = 0.26$), which are dimensions of the big-five model (Judge et al., 2002; Judge et al., 2012).

Job satisfaction is positively correlated with age (Magee, 2015; Rhodes, 1983). It is modestly stable across time and also different jobs (Fisher, 2010; Kaplan et al., 2009; Mäkikangas et al., 2016); however, it is also shown to depend on job characteristics
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(Judge and Kammeyer-Mueller, 2012). Nevertheless, both individual and organisational actions can influence job satisfaction beyond the contribution of dispositional and environmental factors (Fisher, 2010; Judge and Kammeyer-Mueller, 2012).

It has been shown (Fisher, 2010; Judge and Kammeyer-Mueller, 2012) that daily fluctuations in job satisfaction of an individual predict performance of an individual, that an individual’s job satisfaction is negatively related to the intention to quit and actual turnover, absence and counter-productive work behaviour, and positively related to organisational citizenship. The job satisfaction of an individual is also negatively related to depression, anxiety and burnout, and positively related to physical health (Fisher, 2010; Judge and Kammeyer-Mueller, 2012). It is also positively related to subjective well-being, and it seems that the relationship between them is reciprocal with subjective well-being having a stronger effect on job satisfaction than job satisfaction on subjective well-being (Bowling et al., 2010).

When job satisfaction on a unit-level was observed (Fisher, 2010; Judge and Kammeyer-Mueller, 2012), it was shown that unit-level job satisfaction predicts customer satisfaction, perceptions of service quality, profit, productivity, employee turnover and safety. As job satisfaction often moderates the effects of objective work environments, job design, personality and psychological climate on performance, organisational citizenship behaviour and turnover (Fisher, 2010), it matters greatly to individuals and organisations to take care of job satisfaction. Thus, it is of no surprise that it is one of the most influential areas of inquiry in all of organisational psychology (Judge and Kammeyer-Mueller, 2012).

1.3 Time perspective and job satisfaction

Some studies have explored the relationship between time perspective and job satisfaction. Shipp et al. (2009), using their own measure, the temporal focus scale, found that job satisfaction (measured with three items) correlates negatively with past focus ($r = -0.14$) and present focus ($r = 0.30$). However, they found no significant correlation with future focus. Some studies (Korff et al., 2017; Lens et al., 2012) have used the future time perspective scale by Lang and Carstensen (2002) to assess the relationship between future time perspective and job satisfaction (Korff et al., 2017 use Brayfeld and Rothe, 1951 satisfaction scale, while Lens et al., 2012 do not report their measure), and they found that the length of the future time perspective is a significant predictor (Korff et al., 2017 found $r = 0.17$, while Lens et al., 2012 do not report the exact value) of work satisfaction. Banakou (2015) used a short version of the Zimbardo time perspective scale developed by Zhang et al. (2013) and found that future ($r = 0.28$) and present fatalism ($r = -0.20$) correlated significantly with general job satisfaction (measured by the short version of the MSQ designed by Weiss et al., 1967). Weikamp and Göritz (2016) used the occupational future time perspective scale by Zacher and Frese (2009) and found that job satisfaction (measured by Brayfeld and Rothe, 1951 satisfaction scale) correlates with perceived remaining opportunities in the future ($r = 0.23$), while it does not correlate with perceived remaining time at the job. In his research, Ortiz (2012) used future and present-hedonistic scales from the original Zimbardo time perspective scale (Zimbardo and Boyd, 1999) on MBA students in Mexico and found that future correlates ($r = 0.32$) with job satisfaction (measured by scale designed by Andrews and Whitney, 1976), while present-hedonism does not. Antoniak (2011) used the Zimbardo time perspective scale
B. Bajec (Zimbardo and Boyd, 1999) and found that the past-negative dimension is negatively correlated with different cognitive components (measured by the job description sheet designed by Neuberger and Allerbeck, 1978) of job satisfaction \( (r \) ranging from \(-0.15\) to \(-0.28\)), past-positive perspective is not correlated with any of the cognitive components, the present-hedonistic perspective is significantly correlated with colleagues \( (r = 0.15) \), the present-fatalistic dimension is negatively correlated with different cognitive components of job satisfaction \( (r \) ranging from \(-0.16\) to \(-0.27\)) and positively with colleagues \( (r = 0.18) \); the future perspective is positively correlated with some of the cognitive components of job satisfaction \( (r \) ranging from \(0.15\) to \(0.26\)). While observing emotional aspects of job satisfaction (measured by the job affect scale designed by Burke et al., 1989) Antoniak (2011) found that positive affect correlates with past-negative \( (r = -0.29) \), present-fatalistic \( (r = -0.32) \) and future dimensions \( (r = 0.25) \), while negative affect correlates with past-negative \( (r = 0.35) \), present-fatalistic \( (r = 0.38) \) and the future perspective \( (r = -0.16) \).

At the workplace, there are different mechanisms that can explain the relationship between job satisfaction and the time perspective. People who perform better on their job, for example, could have more positive memories of the past and could be evaluated better and, therefore, have higher job satisfaction and a positive-past time perspective. Another possible link could be the one between procrastination and present-hedonism or present-fatalism. People that postpone their work because they do not believe it can be fruitful or because they are enjoying the moment could have more difficulties on the job, lower performance ratings and, therefore, lower job satisfaction. Another mechanism that could explain the possible relationship between job satisfaction and the time perspective could be leadership. If the leader is prone to nurture relationships and structures work in a way that encourages development of the present-hedonism in employees, people at work could be more satisfied. Another possible mechanism fostering the relationship between the time perspective and job satisfaction could be the organisational climate. A person who is future oriented, for example, might be more satisfied in the goal-oriented climate.

### 1.4 Aims of the study

Since life satisfaction has been shown to be consistently related to different time perspectives dimensions, and because life satisfaction and job satisfaction are related (Bowling et al., 2010; Judge and Watanabe, 1994; Tait et al., 1989), the first aim of this study is to verify whether relations similar to those of life satisfaction and the time perspective also occur between job satisfaction and the time perspective, and to verify whether the same relations as observed by other instruments occur between job satisfaction and the time perspective dimensions. The only study using the Zimbardo time perspective inventory (as the most comprehensive tool for assessing time perspective) dealing with this problem was the one made by Antoniak (2011). However, in comparison to her study, in our study, we decided to use faces (Kunin, 1998) as the best measure for the affective component of the job satisfaction (Kaplan et al., 2009) and the Minnesota satisfaction questionnaire (Weiss et al., 1967) that was proven to be the best measure of cognitive components of job satisfaction (Kaplan et al., 2009) and enables us to observe intrinsic and extrinsic components of job satisfaction.

The past-negative dimension is connected with dwelling in sorrow over the past (Zimbardo and Boyd, 2008) and it has been shown to correlate negatively with different aspects of well-being (Davis and Ortiz, 2017; Drake et al., 2008; Podlogar and Bajec,
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2011; Zhang and Howell, 2011). Antoniak (2011) has found that the past-negative dimension correlates with both cognitive and affective components of job satisfaction. It seems that people with a more expressed past-negative dimension also put more emphasis on negative aspects of their jobs and they are, therefore, less satisfied with them. Because of that, we have set the first hypothesis as follows: the past-negative dimension will negatively correlate with job satisfaction, both cognitive and negative aspects.

The past-positive dimension is marked by the perception of the past as pleasant (Zimbardo and Boyd, 2008) and it has been discovered that the past-positive dimension correlates positively with different aspects of well-being (Davis and Ortiz, 2017; Drake et al., 2008; Podlogar and Bajec, 2011; Zhang and Howell, 2011). Antoniak (2011) has, on the other hand, found that the past-positive dimension does not correlate with job satisfaction. Nevertheless, based on the studies that deal with general well-being and time perspective, we assume that people who generally see their past as pleasant will also be more satisfied with their jobs because they also reminisce about nice events in their jobs more than others and are more attentive to positive aspects of their work’s past. Based on those assumptions, we have set the second hypothesis as follows: the past-positive dimension will correlate positively with job satisfaction – both cognitive and emotional components.

The present-hedonistic dimension seeks excitement and immediate pleasure (Zimbardo and Boyd, 2008). It has been shown (Davis and Ortiz, 2017; Drake et al., 2008; Podlogar and Bajec, 2011; Zhang and Howell, 2011) that it correlates with some aspects of well-being, but the correlations that were found to be statistically significant were both negative (with happiness; Drake et al., 2008) and positive (satisfaction with life, positive affect, vitality and hope; Davis and Ortiz, 2017; Drake et al., 2008; Podlogar and Bajec, 2011; Zhang and Howell, 2011). Antoniak (2011) has found that present-hedonism correlates positively with one aspect of cognitive components while it does not correlate with any of the affective dimensions; Ortiz (2012) has not found a correlation between present-hedonism and job satisfaction. As correlations obtained in previous studies about well-being and the time perspective, as well as the time perspective and job satisfaction, were not conclusive, we have set our third hypothesis as follows: the present-hedonistic dimension will not correlate with job satisfaction.

The present-fatalistic dimension expresses hopelessness and a negative life (Boniwell and Zimbardo, 2004). It has been discovered (Davis and Ortiz, 2017; Drake et al., 2008; Podlogar and Bajec, 2011; Zhang and Howell, 2011) that it correlates negatively with different aspects of well-being. Antoniak (2011) has found that present-fatalism is negatively correlated with different cognitive components of job satisfaction and negatively with positive affect, and positively with negative affect, while Banakou (2015) has found a negative correlation between present-fatalism and general job satisfaction. Based on previous studies and as people with expressed present-fatalism do not believe in the possibility of influencing their life and reflect helplessness, we can assume that it will also be reflected in their attitudes towards their jobs. People who perceive themselves as helpless would probably be less satisfied with their jobs, as their perceived competence and autonomy are impaired. Because of that, we have set the fourth hypothesis as follows: the present-fatalistic dimension will correlate negatively with job satisfaction – both cognitive and affective components.

The future dimension is characteristic of people who anticipate positive outcomes (Drake et al., 2008), and it has been shown that the future dimension correlates positively
with different aspects of well-being (Davis and Ortiz, 2017; Drake et al., 2008; Podlogar and Bajec, 2011; Zhang and Howell, 2011). Antoniak (2011) has found that the future dimension correlates positively with some of the cognitive components of job satisfaction and positive affect, and negatively with negative affect, while Banakou (2015) and Ortiz (2012) have found that the future correlates positively with job satisfaction. Based on that, we can assume that people who have a higher future dimension will be more optimistic about their jobs. The mechanism behind it might be that people who see more goals in their future are more satisfied with their job, while on the other hand, the case might be that people with a higher future time perspective could choose their jobs more wisely and, therefore, be more satisfied with their jobs. Therefore, we have set the fifth hypothesis as follows: the future dimension will correlate positively with job satisfaction – both cognitive and affective components.

Judge et al. (2002) have shown that job satisfaction can be explained on the basis of the big five personality traits, mainly by neuroticism, conscientiousness and extraversion. Zhang and Howell (2011) have shown that the time perspective can explain the additional variance in life satisfaction beyond that explained by demographic variables and personality traits. Based on this, the second aim of this study is to explore whether time perspective dimensions predict a unique variance in job satisfaction beyond gender, age and personality traits. As both job satisfaction (Judge et al., 2002; Judge and Kammeyer-Mueller, 2012) and the time perspective (Zhang and Howell, 2011) can be explained by personality, it could be that personality affects both, and, therefore, correlations between them occur. However, we assume that the time perspective dimensions are a result not only of personality but also of experiences that shape our non-conscious cognitive processes. We assume that those cognitive processes shape our perception and interpretation of the events and influence our attitudes towards jobs beyond personality. Therefore, we have set our sixth hypothesis as follows: the time perspective dimensions will explain additional variance above that explained by gender, age and personality traits.

As was shown, in order to achieve the highest well-being, a balanced time perspective is the optimal one (Boniwell, 2005; Boniwell et al, 2010; Drake et al., 2008; Gao, 2011; Güel et al., 2015; Sobol-Kwapinska and Jankowski, 2016; Stolarski and Cyniak-Cieciera, 2016; Stolarski et al., 2014; Stolarski et al., 2016; Webster et al., 2014; Webster and Ma, 2013; Wiesman et al., 2017; Zhang et al., 2012). Therefore, the third aim of this study is to verify whether the balanced time perspective also correlates with job satisfaction and predicts it beyond personality traits, demographic variables and separate time perspective dimensions. As people with the most balanced time perspective are supposed to be able to adapt their temporal mode to the situations they find themselves in best (Boniwell, 2005), they should be able to use that adaptation in job settings as well. They would be able to use the future time perspective when goal setting is needed, use past-positive and past-negative perspectives when learning from past experiences is appropriate, use the present-fatalistic perspective when caution is needed and use the present-hedonistic dimension when joy in work can be experienced. Therefore, they would be able to have the most successful and most satisfying work. Based on that, we have set our seventh hypothesis as follows: the balanced time perspective correlates with all components of job satisfaction. The eighth hypothesis is as follows: a balanced time perspective predicts job satisfaction beyond age, gender, personality traits and separate time perspective dimensions.
2 Method

2.1 Sample and procedure

A sample of 645 Slovene employees participated in the study. They were recruited by psychology students, who were compensated 8 € for each participant they recruited and helped fill out the questionnaire, while participants were given written feedback by the researcher about their results if they so desired. There were 384 female and 255 male participants, while six did not report their gender. The average age of the participants was 40.6 years (SD = 10.17) and it ranged from 18 to 66 years of age. Twenty-two (3.4%) of the participants had primary school education or less, 257 (39.8%) had secondary school education, 328 (50.9%) obtained a bachelor’s degree, 25 (3.9%) a master’s degree, 8 (1.2%) a PhD education, and 5 (0.8%) of the participants did not report their education. 266 (41.2%) of them were employed in the private sector, 345 (53.5%) in the public sector, 26 (4.0%) in the non-governmental sector and 8 (1.3%) did not report their job sector. 4 (0.6%) of them were employed in agriculture, forestry and fishing, 44 (6.8%) in manufacturing, 7 (1.1%) in electricity, gas and steam, 2 (0.3%) in water supply, sewage, waste management and remediation, 17 (2.6%) in construction, 33 (5.1%) in trade, maintenance and repair of motor vehicles, 19 (2.9%) in transport and storage, 20 (3.1%) in accommodation and food service activities, 32 (5.0%) in information and communication, 46 (7.1) in financial and insurance activities, 3 (0.5%) in real estate, 28 (4.3%) in professional, scientific and technical, 29 (4.5%) in administrative and support service, 71 (11.0%) in public administration and defence, 129 (20.0%) in education, 59 (9.1) in human health and social work, 19 (2.9%) in arts, entertainment and recreation, 76 (11.8%) in other service activities, and 7 (1.1%) did not report on their activities. 124 (19.2%) of them were employed in enterprises with less than 10 employees, 153 (23.7%) were employed in enterprises with between 10 and 49 employees, 215 (33.3%) were employed in enterprises with between 50 and 249 employees, 150 (23.2%) were employed in enterprises with more than 250 employees, and 3 (0.4%) did not report the size of the company where they are employed.

After providing informed consent, the participants anonymously filled in the paper-and-pencil questionnaires, which assessed their personality traits, time perspectives, job satisfaction, some other measures (positive and negative affect, satisfaction with life, time management behaviours, and work-family and family-work conflict) that were not included in the present study, and also provided demographic information.

2.2 Measures

To measure the big five personality structure, the big five inventory (John et al., 1991; adapted to Slovene by Avsec and Sočan, 2007) was used; this is a 44-item questionnaire measuring extraversion, agreeableness, conscientiousness, neuroticism and openness. Participants use a 5-point scale from 1 – totally disagree to 5 – totally agree to indicate whether a characteristic describes them.

In order to measure the time perspective, the Zimbardo time perspective inventory (Zimbardo and Boyd, 1999; adapted to Slovene by Podlogar and Bajec, 2011) was used. It consists of 56 items measuring past-negative, present-hedonistic, future, past-positive and present-fatalistic dimensions. Participants use 5-point scale from 1 – very
uncharacteristic to 5 – very characteristic to indicate whether each of the items is valid for them. The translation to Slovene was independently done by five psychologists, and back translation was done by one of the authors. The translation tested on a sample of 279 Slovene students showed appropriate reliabilities (ranging from 0.71 for present-fatalistic to 0.84 for past-negative dimension) and predictive and discriminative validity (Podlogar and Bajec, 2011). To measure the balanced time perspective the deviation from the balanced time perspective (DBTP) proposed by Stolarski et al. (2011) was used. We calculated it as:

\[
\sqrt{(1.95 - PN)^2 + (4.60 - PP)^2 + (1.50 - PF)^2 + (3.90 - PH)^2 + (4.00 - F)^2},
\]

where \(PN\) denotes past-negative, \(PP\) past-positive, \(PF\) present-fatalistic, \(PH\) present-hedonism and \(F\) future dimension scores by an individual, and numbers from which \(PN\), \(PP\), \(PF\), \(PH\) and \(F\) are deducted are theoretically proposed optimal values for each of the dimensions.

As Kaplan et al. (2009) have shown, the faces (Kunin, 1998) is the best measure for the affective component of the job satisfaction, and the Minnesota satisfaction questionnaire, in its long and short form (Weiss et al., 1967), is a particularly cognitive measure of job satisfaction; both of these measures were used in this study. The faces scale is a 1-item measure with 11 different faces expressing attitudes towards a participant’s job. The short form of the Minnesota satisfaction questionnaire (Weiss et al., 1967; adapted to Slovene by Tratnjek, 2007) is a 20-item measure of intrinsic, extrinsic and general job satisfaction. Participants use a 5-point scale to indicate how satisfied (from 1 – not satisfied to 5 – extremely satisfied) they are with different aspects of their jobs.

3 Results

The descriptive statistics and internal consistency for the variables, correlations for the variables, prediction of job satisfaction with personality traits and time perspective dimensions are shown in Tables 2, 3 and 4, respectively.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Dimension</th>
<th>M</th>
<th>SD</th>
<th>(\alpha)</th>
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</thead>
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<td></td>
<td>openness</td>
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<td>Zimbardo time perspective inventory</td>
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Relationship between time perspective and job satisfaction

Table 2  Descriptive statistics and internal consistency for measured variables (continued)

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As we can see in Table 2, the internal consistencies (measured by Cronbach’s α) for all of the measures used in the study are satisfactory. As faces are a singular-item measure, reliability was not assessed.

As shown in Table 3, the DBTP shows highest correlations to all of the job satisfaction components. The past-positive dimension correlates positively with all aspects of job satisfaction and the past-negative dimension; the present-fatalism and the DBTP correlate with all of the aspects of job satisfaction negatively. These results are in accordance with previous studies (Antoniak, 2011; Banakou, 2015) and support our first, second, fourth and seventh hypotheses.

The present-hedonistic dimension correlates significantly only with the affective aspect of job satisfaction, and the correlation is positive. This does not support our third hypotheses and is not in accordance with results obtained by Antoniak (2011), who found a positive correlation with one of the cognitive components, and Ortiz (2012), who found no correlation between present-hedonism and job satisfaction. It could be that present-hedonism is important only for the affective component of job satisfaction. Thus, people who are able to enjoy the moment also associate positive emotions with their jobs; however, being present-hedonistic does not seem to affect their beliefs about their jobs.

On the other hand, the future correlates with all of the cognitive components of job satisfaction positively and it does not correlate statistically significantly with the affective component of job satisfaction. This is not in accordance with the results of a previous study by Antoniak (2011), who found a correlation with affective components as well and does not support our fifth hypotheses. It is possible that people who are future oriented pay more attention to the cognitive aspects of job satisfaction, and emotional aspects are not as important to them.

All of the time perspective dimensions and the DBTP correlate with at least three of the big five personality dimensions while all of the job satisfaction components correlate with all of the personality dimensions. Therefore, it is possible that personality explains the entire correlation between time perspective dimensions and job satisfaction.

In order to determine the unique variance in job satisfaction explained by the time perspective dimensions and balanced time perspective, hierarchical regression analyses were conducted. Job satisfaction variables were predicted on the basis of gender (as neuroticism that correlates with job satisfaction is reported to differ in gender; Costa et al., 2001) and age (as it was shown that it correlates with job satisfaction and the future time perspective, and it was also shown to be a moderator between the time perspective and happiness; Simons et al., 2016), personality traits, the time perspective dimensions and the DBTP. In first step of the regression, gender and age were entered, followed by personality traits in the second step; this was followed by the time perspective dimensions in the third step in one case (3a) and the DBTP in another (3b); in the fourth step (following step 3a), the DBTP was added to other variables.
### Table 3

Correlations for measured variables

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**Notes:** 1 – gender, 2 – age, 3 – extraversion, 4 – agreeableness, 5 – conscientiousness, 6 – neuroticism, 7 – openness, 8 – past-negative, 9 – present-hedonistic, 10 – future, 11 – past-positive, 12 – present-fatalistic, 13 – deviation from balanced time perspective, 14 – faces, 15 – intrinsic job satisfaction, 16 – extrinsic job satisfaction, 17 – general job satisfaction; *p < 0.05.
### Table 4

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Note: *p < 0.05.
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<td>0.084</td>
<td></td>
<td>0.084</td>
<td></td>
<td>-0.185*</td>
<td>-0.185*</td>
<td></td>
<td></td>
<td>-0.198*</td>
</tr>
<tr>
<td>Model R</td>
<td>0.028</td>
<td>0.219*</td>
<td>0.277*</td>
<td>0.240*</td>
<td>0.278*</td>
<td>0.049</td>
<td>0.305*</td>
<td>0.393*</td>
<td>0.342*</td>
<td>0.400*</td>
</tr>
<tr>
<td>Model ΔR²</td>
<td>0.001</td>
<td>0.047*</td>
<td>0.029*</td>
<td>0.010*</td>
<td>0.001</td>
<td>0.002</td>
<td>0.091*</td>
<td>0.061*</td>
<td>0.024*</td>
<td>0.006</td>
</tr>
</tbody>
</table>

Note: *p < 0.05.
As shown in Table 4, all of the components of job satisfaction can be explained by the time perspective beyond age, gender and personality traits. In the case of affective job satisfaction, the time perspective dimensions add an additional 2.3% to the variance explained, while the DBTP adds 1.3% of the variance explained. It seems that the present-hedonistic dimension is the one that adds to the explanation of the affective job satisfaction. When intrinsic job satisfaction is predicted on the basis of age, gender, personality and time perspective, the time perspective dimensions explain an additional 7.9% of the variance of it, while the DBTP adds 3.1%. It seems that all of the time perspective dimensions except for the past-negative dimensions add to the explanation of the intrinsic job satisfaction. If extrinsic job satisfaction is predicted, the time perspective dimensions add an additional 2.9% of the variance explained beyond age, gender and personality, and the DBTP adds 1.0%. It seems that the future dimension is the one that explains extrinsic job satisfaction beyond age, gender and personality. When we predict general job satisfaction, the time perspective dimensions add 6.1% of variance explained beyond age, gender and personality, and the DBTP adds 2.4%. It seems that the future, past-positive and present-fatalistic dimensions explain general job satisfaction beyond age, gender and personality. Based on these results we can confirm our sixth hypothesis – that the time perspective dimensions explain additional variance above that explained by gender, age and personality traits. When the DBTP is added to other variables, it explains additional variance (0.9%) only in the case of intrinsic job satisfaction, so our eighth hypothesis is not confirmed. It seems that a balanced time perspective is not as important in job satisfaction as it is in well-being, and attention to separate time-perspective dimensions could be more important to foster different aspects of job satisfaction.

4 Discussion

4.1 Relationship between job satisfaction and time perspective

Both the affective and cognitive components of job satisfaction correlated with the past-negative, past-positive and present-fatalistic dimensions. It seems that people who are prone to ruminating about their negative past experiences and have more negative attitudes towards life will experience less job satisfaction, while people who perceive their past as pleasant and enjoy reminiscing about positive experiences from their earlier life will see their jobs as more satisfactory. The affective component of job satisfaction correlated positively with the present-hedonistic dimension, while the cognitive component correlated positively with the future dimension. Previous studies (Boniwell and Zimbardo, 2004; Podlogar and Bajec, 2011; Wills et al., 2001; Zhang and Howell, 2011) have shown that the present-hedonistic and future dimensions correlate with both the affective and cognitive measures of general life satisfaction, so this relationship differs when we deal with job satisfaction.

It is possible that people who are better able to enjoy their life can satisfy their emotional needs in a job better than others. On the other hand, people who are more prone to invest their time in future goals and working hard have more positive thoughts and beliefs about their job. It could be that people with better job possibilities can believe more in their future (job satisfaction and future time perspective could be the result of better job opportunities) or that people with a greater anticipation of future rewards can
satisfy those needs in their jobs and, therefore, value them higher (thus, the future time perspective precedes job satisfaction). Further studies are needed to verify these possibilities.

4.2 Prediction of job satisfaction based on gender, age, personality traits and time perspective

As we can see (Table 4), both the affective and cognitive aspects of job satisfaction can be successfully predicted based on time perspective dimensions beyond the explanation provided by demographic variables and personality traits.

The present-hedonistic dimension is the only one that provides an additional explanation beyond personality traits and demographic data when dealing with the affective aspect of job satisfaction. It seems that the ability to live for the moment enables us to enjoy our jobs to a greater extent, so in order to enhance affective job satisfaction, interventions in a present-hedonistic time perspective may be successful, namely, investing more time and effort in the hedonistic aspects that an individual’s job can provide.

In the cognitive aspects of job satisfaction, the time perspective dimensions seem extremely important – they predict job satisfaction beyond demographic data and personality traits, even to the extent that personality is not an important predictor. Intrinsic job satisfaction – that is, how people feel about the nature of the job tasks themselves (like using one’s abilities, meaningfulness of the tasks and so on) – seems to be a result of the ability to enjoy the moment (present-hedonistic), invest in the future (future), think positively about our past (past-positive) and believe in our abilities (negative present-fatalistic). Extrinsic job satisfaction – that is, how people feel about aspects of the work situation that are external to the job tasks or to work itself (like payment, possibility of advancement, praise and so on) – seems to be connected with people’s striving for future goals and the need to have things organised. Regarding general job satisfaction, it seems that it is optimal to have balanced future, past-positive and present-fatalistic dimensions; to be generally satisfied with one’s job it is beneficial to organise tasks and anticipate reward in the future, reminisce about the positive experiences of the past and believe in one’s abilities to change things.

4.3 Limitations of the study

One disadvantage of the study was that the sample used was a convenience sample. It would be better if a random sample were used, so conclusions could be more grounded. Another disadvantage was that self-evaluations were used in gathering all of the data so correlations between variables could be higher because of the variance of the method. As our study was cross-sectional, we are not able to determine whether the time perspective precedes job satisfaction or job satisfaction influences the time perspective. Since we were not observing other variables that might cause the correlation between the time perspective and job satisfaction (such as performance, climate, etc.) and our design was not experimental, we are not able determine causes and effects.
4.4 Future research

As we can see, time perspective dimensions are important in predicting job satisfaction possibly because they emerge from cognitive processes that add information to predictions beyond the one provided by personality traits. Therefore, the next step would be to study whether interventions aimed at time perspectives, which could be more susceptible to change than personality, could influence job satisfaction dimensions, especially the intrinsic one.

Another possible research path would be to determine whether there are any variables that moderate or mediate the relationship between the time perspective and job satisfaction. As was shown, human resource management systems (Korff et al., 2017) have effects on employees’ time perspective and job satisfaction via the time perspective; therefore, future research should aim to explore the possibility that leadership, organisational climate and organisational culture affect relationships between time perspective and job satisfaction.

4.5 Implications for practice

As our study does not allow to assess causal relationships, implications for practice are limited, but for professionals working in human resources it might be fruitful to take possible relations between different time perspective dimensions into account when dealing with job satisfaction and its outcomes. The most promising seems to be intrinsic job satisfaction. The time perspective dimensions add the most additional variance to it, thus it seems that other components of job satisfaction could also be targeted by changing time perspectives. Therefore, it might be useful to use different interventions (Bajec et al., 2014; Boniwell, 2005; Boniwell et al., 2014; Korff et al., 2017) to change time perspectives in order to affect job satisfaction and its outcomes. For example, when trying to foster work engagement, present-hedonistic, future, past-positive and present-fatalistic dimensions can be targeted because they seem to affect intrinsic job satisfaction. When trying to enhance organisational commitment or lower turnover intentions, interventions in the future time perspective could be the most important, as it seems that future time perspective could affect extrinsic job satisfaction.

References


Relationship between time perspective and job satisfaction


Lee, T.J. (2017) *Relationship between intrinsic job satisfaction, extrinsic job satisfaction, and turnover intentions among internal auditors*, Walden University, Minneapolis, MN.


