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## Balanced Time Perspective: Developing Empirical Profile and Exploring Its Stability over Time

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### Introduction

In this chapter, we shed light on the main characteristics of people with a balanced time perspective (BTP) profile. Who are those mythical people? What do they do in their daily life? What type of life do they have? What interests them? Who do they hang out with? What do they do on vacation?

We were also interested in knowing whether the BTP profile would be stable throughout a person's life and which events might be critical in affecting such stability, as well as how the balance differs among time perspectives. Undertaking this study, we tried to fill the gap in the current literature regarding studies with longitudinal design.

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The existing literature proposes different ways of calculating the balanced profile and then validating those by employing a variety of approaches (correlational studies, SEM, cluster analysis, etc.), but all these studies are data driven and consist of hypothesis testing methodology. Our study, instead, took a slower approach, using a mixed-method case study, for which we combined both qualitative and quantitative methodologies. We adopted a longitudinal design study in which we met our participants on two occasions, with 18 months between those meetings.

Our chapter begins with a brief theoretical overview of the concept of time in psychology and, more specifically, of time perspective. Further, the Swedish operationalization of the future dimension is discussed, followed by a theoretical background on the concept of the balanced time perspective. Finally, we present an overview of approaches to operationalize the BTP profile, including levels of balance, and provide a detailed description of our case study. After a discussion of our results, the chapter ends with a presentation of our ideas on empirical applications and proposals regarding future inquiries and scientific directions.

## Theoretical Meanings of the Concept of Time, from James to Lewin

In 1890, William James discussed time duration and the passage of time as a core concept in psychology. At almost the same time, the Nobel Prize winner Henri Bergson (1889/2007) discussed time as an intuition of duration, felt through the stream of consciousness. In this, subjective time is conceived as a spatial degradation of “pure” time achieved with a symbolic representation constituting the past, consisting of memory, and the future, formed by expectations. McTaggart (1908) also underlined the *paradoxal status of time* and proposed a distinction between past/present and earlier/later positions in time. Influenced by gestalt theory, Fraisse (1957) published an extensive review of psychological studies on time and proposed that time perception is a *bridge between the past, the present, and the future*, induced by the duration of perception.

Lewin (1942) was one of first scholars to talk about time perspective (TP) theory. He formulated the concept of *time-filled life space*, which emphasizes the meaning of TP from individual circumstances, and he defined time perspective “as the totality of the individual’s views of her/his psychological future and her/his psychological past that are existing at a given time” (Lewin, 1951, p. 75). TP is considered part of an individual’s orientation of the psychological past and future existing at a given time. According to Lewin, a present-time orientation is focused on immediate events, while a future-time orientation is largely shaped by goals and a tendency to relate to more distant objectives. Lewin also stressed the impact of time on psychological conditions, and maintained that differences and biases in temporal orientation are influenced by the individual’s social background and motivational processes.

The concept of a time-filled life space (Lewin, 1951) has been extended by several scientists, including Nuttin and Lens (1985). They point out that “future and past events have an impact on present behavior to extent that they are actually present on the cognitive level of behavioral functioning” (p. 45). They also argue that TP is a dynamic concept, whereby people can choose the TP that best meets their current objectives. Further, time perspective offers an important basis for helping people to understand their experiences and existence in the world, shaping thoughts and affect states in their lives. How an individual perceives time differs among individuals, and distinctive TPs are expected to be shaped by contextual factors. People remember memories and events from the past, experience the present, and look forward to rewards or anticipate punishments in the future. Differences in TP may influence people’s present behavior and thoughts as individual decisions and judgments, whether for shorter or longer time perspectives.

## Empirical Studies on Developing the Concept of TP

### Zimbardo Time Perspective Inventory (ZTPI)

Toward recognizing the centrality of TP, Philip Zimbardo and John Boyd developed a self-rating inventory—the Zimbardo Time Perspective

Inventory (ZTPI; Zimbardo & Boyd, 1999). This instrument was an important innovation in the research field, providing a reliable metric after many previous attempts to operationalize the concept of TP. (See Boyd & Zimbardo, 2005, for a review.) The ZTPI metric allows researchers to measure simultaneously an individual's orientation to the past, the present, and the future. It consists of five distinct time-perspective subscales and contains 56 items. *Past Negative* (PN) scale reflects a pessimistic, negative, or aversive attitude toward the past, and includes items such as, "I think about the good things that I have missed out on in my life." *Past Positive* (PP) scale reflects a warm sentimental, nostalgic, and positive construction of the past, and includes items such as, "It gives me pleasure to think about my past." *Present Hedonistic* (PH) scale mirrors a hedonistic, risk-taking attitude toward time and life; pleasure and enjoyment in the now is more important than future outcomes, and includes items such as, "Taking risks keeps my life from becoming boring." *Present Fatalistic* (PF) scale is characterized by a helpless, fatalistic, and hopeless attitude toward the present, and includes items such as, "Fate determines much in my life." Finally, the *Future* (F) scale, which reflects a general future orientation, where one is striving for future goals and rewards, includes items such as, "I believe that a person's day should be planned ahead each morning."

The ZTPI is a multidimensional measure and responses are given on a five-point Likert scale (1 = very uncharacteristic, 5 = very characteristic). The instrument is robust and reliable; especially, it exhibits high test-retest reliability, as well as good convergent and discriminant validity (Boniwell, 2009; Worrell & Zeno, 2007). The stability and validity of ZTPI were recently shown in a cross-cultural study involving 24 countries (Sircova et al., 2014).

### **Swedish Zimbardo Time Perspective Inventory (S-ZTPI)**

Zimbardo and Boyd (1999) were aware of the necessity to include another future dimension. Quite recently, an extended version of the ZTPI was developed and validated in Sweden: the Swedish Zimbardo

Time Perspective Inventory (S-ZTPI; Carelli, Wiberg, & Wiberg, 2011). The S-ZTPI consists of six subscales and contains 64 items, where four scales (PN, PP, PH, and PF) are identical to the ZUPI described subscales. In addition, there are two new scales: *Future Negative* (FN) and *Future Positive* (FP). FN embodies a negative view of the future associated with worry and anticipating the negative outcomes. Two of the original F-items (“If things don’t get done on time, I don’t worry about it”) and the reverse-coded item (“It upsets me to be late for appointments”) were placed in the FN scale together with eight new items (e.g., “The future contains too many boring decisions that I do not want to think about”). FP reflects a positive view to the future with goals and rewards. The remaining 11 original items in the F scale were used in the new FP scale.

As in the ZTPI, the participants were asked how characteristic or true the item is for them, using a five-point Likert scale (1 = very uncharacteristic, 5 = very characteristic). Internal consistency ranges from .84 for the PN scale to .70 for the FP scale, and test-retest reliability is significant for all scales and ranges from .85 to .60 (Carelli et al., 2011).

Since the publication of the S-ZTPI, the results of several research studies in different areas of psychology such as clinical (see Carelli & Wiberg, 2012; Carelli, Wiberg, & Åström, 2015; Wiberg, Wiberg, Carelli, & Sircova, 2012; Åström, Wiberg, Sircova, Wiberg, & Carelli, 2014) and neuropsychology (Carelli & Olsson, 2015) seem to suggest that both negative and positive feelings about the future constitute a central dimension of TP.

## Theoretical Views of the Construct of BTP

Several theorists and researchers have tried to explore the relationship between different types of personality and time. Shostrom (1964, 1974) formulated the concept of *time competence*, suggesting that a “self-actualizing person” is an individual who is primarily time competent: concerned with living fully in the present, but uses the past and future to make the present more meaningful and understands that memory

and anticipation are acts in the present with the past and future providing the background. Even Litvinovic (1998) used the construct of *productive time orientation*, aiming a person's positive and dynamic evaluation of her past and the future, but in consonance with her present.

Finally, Zimbardo and Boyd (1999) proposed their view of personality—that is, time characteristics—arguing that although people have access to three temporal zones (past, present, and future) to various degrees, they may often be particularly directed to one time perspective and have a specific *biased time perspective*, meaning that it is not adaptive across situations. In contrast to this view, Zimbardo and colleagues proposed the concept of *balanced time perspective* (BTP)—an idealized mental framework that enables people to flexibly switch between their present, past, and future depending on task features, demands, situational considerations, personal resources, and social evaluations. Boyd and Zimbardo (2005, pp. 101–103) proposed hypotheses about the “ideal trio”—Past Positive, Present Hedonistic, and Future.

## Attempts to Operationalize the Construct of BTP

Zimbardo and Boyd (2008) proposed that an individual with an “ideal” or optimal BTP profile should exhibit high scores on PP (raw scores at 4.60), moderately high scores on F (raw scores at 4.0) and PH (raw scores at 3.9), and low scores on PN (raw scores at 1.95) and PF (raw scores at 1.5) (see [www.timeparadox.com/surveys/](http://www.timeparadox.com/surveys/)).

Over the years, many researchers have tried to empirically operationalize the BTP construct with different statistical analysis, including cluster analysis (Boniwell, 2005; Boniwell, Osin, Linley, & Ivanchenko, 2010), cut-off point approach (Drake, Duncan, Sutherland, Abernethy, & Henry, 2008; Sircova & Mitina, 2008), and SEM analysis (Sircova & Mitina, 2008). However, Boniwell et al. (2010) point out that the cut-off point approach is unsatisfactory, since the criteria were chosen arbitrary; similarly, Wiberg, Sircova, Wiberg, & Carelli (2012) discuss the arbitrary criteria chosen for operationalized BTP with cluster analysis.

## Studies of the BTP Profile as a Multidimensional Construct

Addressing these concerns about applied statistical analysis, Stolarski, Bitner, and Zimbardo (2011) developed a special formula called *Deviation from Balanced Time Perspective* (DBTP), which is not sample dependent. It is a measure of difference between an individual's time perception and the optimal time perspective profile as stated by Zimbardo and Boyd (2008). The DBTP assumes that the BTP is normally distributed and indicates how ill-balanced the TP of each person is (Stolarski, Wiberg, & Osin, 2015). Results from Zhang, Howell, and Stolarski (2013) suggest that this DBTP method has a significantly better predictive validity with regard to people's well-being than the earlier cut-off point approach (Drake et al., 2008) or cluster analysis (Boniwell et al., 2010). In summary, the results of the proposed operationalizations (Boniwell et al., 2010; Drake et al., 2008; Zhang et al., 2013) describe both strengths and weaknesses for each approach, but also indicate that the BTP construct is not yet completely explored and clarified (Stolarski et al., 2015).

Quite recently, an alternative view of BTP operationalization has been proposed by Wiberg, Sircova, Wiberg, & Carelli (2012), based on the theoretical model proposed by Zimbardo and Boyd (2008). This view is, in our opinion, innovative for at least three reasons. First, there was need for an operationalization of BTP, which can be used independently of an obtained sample. Previous attempts to operationalize the BTP were empirically driven and depended on the sample and data used in the former studies. The second reason concerns the ecological validity of the BTP model, whereby BTP is conceptualized as a multidimensional construct rather than a binary, since an individual is seldom either balanced or not balanced. More specifically, Marie Wiberg and colleagues (2012) consider different levels of balance (ranging from 0 to 6) to be closer to the everyday complexity of the BTP construct. An individual is believed to have a TP, which is more or less balanced in life depending on his level of balance. The third reason is that when BTP is seen as a multidimensional construct, it is more satisfactory from a measurement point of view. The different levels of BTP can be matched with different psychological measures and self-report questionnaires, and also give opportunities for a deeper understanding through narratives in interviews.

## **BTP and Well-Being**

Based on these different operationalizations of the BTP construct, previous quantitative studies have shown that people with BTP are happier, highly satisfied with life, very optimistic, and confident in their abilities to achieve goals (Boniwell et al., 2010). They are more mindful (Drake et al., 2008), and seem to cope more effectively with stressful life situations; they have sense of direction and beliefs that give their life purpose (Sircova & Mitina, 2008). BTP people tend to have psychological and physical health, with higher levels of well-being (i.e., happiness) (Boniwell & Zimbardo, 2004)—these qualities are considered to be optimal for societal functioning (Boyd & Zimbardo, 2005). Although research on psychological correlates of BTP are increasing, it is also essential to conduct additional exploratory *case studies* with the aim of developing a working, rather than a hypothetical, profile of individuals with a balanced TP. There is almost no research that deals with multifaceted constructs, such as BTP using profile analyses of the complex of factor scores for each individual (Boniwell & Zimbardo, 2004). The aim of the research outlined here was an attempt to fill that gap.

## **The Present Study: A Quantitative and Qualitative Case Study of People with BTP Profiles in Sweden**

The purpose of this longitudinal case study was to obtain a deeper understanding of the BTP construct measured by S-ZTPI (Carelli et al., 2011), and also to describe and explore its stability or change over time, according to the level of BTP studied by Marie Wiberg et al., 2012. A semi-structured interview was designed to gain information about participants' general background, health, and actual life situation (economy, professional, interests, and eventually actual family), including life goals and spirituality. Together with in-depth interviews, there were different kinds of measures included: self-report measurements; Swedish Zimbardo Time Perspective Inventory (S-ZTPI); Scales of Psychological Well-Being (SPWB), Satisfaction With Life Scale (SWLS), Life Events scale, Beck



Depression Inventory-II (BDI-II), Symptom Check List-90, (SCL-90), and a projective test (Cottle's Circles test).

More specifically, the present study aimed to answer the following research questions:

1. To which degree is the BTP construct, measured by S-ZTPI, stable over time (18 months) according to the calculation of the level of BTP (Marie Wiberg et al., 2012) in our study cases?
2. How do BTP people report themselves in terms of psychological well-being and satisfaction with life (measured by SPWB and SWLS)?
3. Are these BTP people mentally healthy people (measured by BDI-II and SCL-90)?
4. How, through in-depth interviews, do BTP people describe themselves and others according to their time perspective? Is the "ideal trio" (i.e., Past Positive, Present Hedonistic, Future, following Boyd and Zimbardo [2005, pp. 101–103]) present in their narratives?

## BTP Case Studies

### Procedure and Participants

The overall sample consisted of 50 participants, recruited through flyers; all received payment for being part of the study. The S-ZTPI scale was administered to all participants. Only seven obtained a fully balanced TP profile (level 5 or level 6) according to Marie Wiberg and colleagues (2012). More specifically, in the stringent case, these participants had:

*Low scores* on PN, PF, and FN. Participants scored 1 or 2 on most items.

*Moderate scores* on PH. Participants scored 3 on most items.

*Moderately high scores* on FP. Participants scored 3 or 4 on most items.

*High scores* on PP. Participants scored a 4 or a 5 on most items.

As a next step, those seven people with BTP profiles were contacted and all gave their written consent to participate, and all came to the first study occasion. After 18 months they were contacted again and invited to

participate in the follow-up study, to which they all agreed. Both study occasions took place in the same room at Umeå University, Sweden. This longitudinal case study was done in accordance with the Declaration of Helsinki and was approved by the Regional Ethical Review Board at Umeå University, Sweden (Archive number: 09-218 m 2009-1424-31).

Seven persons—one female and six male persons, ages between 23 and 55 years ( $M = 29$  years) participated in both study occasions. Five of the participants were students, one was retired due to sickness, and one was working full time. All participants had some university education. Three persons were married, two persons were living together with intended spouses, and two were single; six were heterosexual and one was homosexual.

## Measurements

All 50 participants in the original sample answered the Swedish Zimbardo Time Perspective Inventory (S-ZTPI). The seven people with BTP (level 5 or level 6) according to Marie Wiberg and colleagues (2012) were answering the following self-report questionnaires: Scales of Psychological Well-Being, Satisfaction With Life Scale, Life Events scale, Beck Depression Inventory, Symptom Check List-90, and interviews together with Cottle's Circles Test at both study occasions. The measurements were as follows:

- **Swedish Zimbardo Time Perspective Inventory** (S-ZTPI; Carelli et al., 2011, 2015) was used at both study occasions to answer the research question “To which degree is the BTP construct, measured by S-ZTPI, stable over time (18 months) according to the calculation of the level of BTP (Marie Wiberg et al., 2012) in our study cases?” Carelli and colleagues (2011) reported that test-retest reliabilities of the subscales of the ZTPI and S-ZTPI were established with a sample of 30 participants, where the time span was two weeks between the two study sessions. All reliabilities were significant, with  $p < .05$ . The highest test-retest reliability was observed for the PN (.85), followed by PH (.74), PF (.71), PP (.69), FN (.69), F (.64), and FP (.60). Both the Past and Future Negative subscales showed greater retest correlations than the corresponding Positive subscales.

- ***Scales of Psychological Well-Being*** (SPWB; Ryff, 1989) was used for answering the research question, “How do BTP people report themselves in terms of psychological well-being?” SPWB is a theoretically grounded instrument, which specifically focuses on measuring the following six dimensions: Positive relations with others (PRwO), Autonomy (A), Environmental Mastery (EM), Personal Growth (PG), Purpose in Life (PiL), and Self-Acceptance (SA). Here, we used the 14-item scale and the responses are given on a six-point Likert scale (1 = strongly disagree, 6 = strongly agree). Seiffert (2005) reported the test-retest reliability for the subscales PRwO (.83), A (.88), EM (.81), PG (.81), PiL (.82), and SA (.85).
- ***Satisfaction With Life Scale*** (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) was used for measuring the overall subjective life satisfaction for these BTP people. The SWLS consists of five items that participants respond on a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). The SWLS has been examined for both reliability and sensitivity. The SWLS has shown strong internal reliability and moderate temporal stability. Diener et al. (1985) reported a coefficient alpha of 0.87 for the scale and a two-month test-retest stability coefficient of 0.82.
- ***Life Events scale*** (Paykel, 1983) is a self-reporting scale that consists of items about relationships, separations, losses, mobbing, health, sickness, education, work, and economy. The participant marks each life event with the age when it occurred and how the event was perceived (Negative (−), Neutral (0), or Positive (+)).
- ***Beck Depression Inventory*** (BDI-II; Beck, Steer, & Brown, 2006) was administered for checking eventually depressive symptoms and for answering the research question, “Are these BTP people mentally healthy people?” The BDI is a self-report scale and includes both psychological and physical symptoms for quantifying levels of depression. It includes 21 items and uses a four-point scale (0 = symptom not present, 3 = symptom very intense). The BDI had a one-week test-retest reliability of  $r = .93$  and an internal consistency of  $\alpha = .91$ .
- ***Symptom Check List*** (SCL-90; Derogatis, 1977; Derogatis, Lipman, & Covi, 1973) was administered in order to check for possible psychic symptoms and answer the research question, “Are these BTP people

mentally healthy people?” Participants were required to respond to the 90 items using a five-point rating scale. Test-retest reliability has been reported at .80 to .90, with a time interval of one week.

- ***Interviews together with Cottle’s Circles Test*** (Cottle, 1967, 1976) was administered at both study occasions. The interviews started with Cottle’s projective circles test, whereby the participant was asked to make three circles on a blank paper—one circle for the present, one circle for the past, and one circle for the future. Then the participant decided in which order she wanted to talk about her past, present, and future. Every TP started with the same question: “How do you view your own past/present/future”? Then the next question followed: “What does past/present/future consist of for you?” The questions about the past delved into the original family, relatives, celebrations of birthdays and holidays, and significant life events. The questions about the present touched upon the actual life situation (economy, professional, interests, etc.). The questions about the future concerned planning for the future according to education level, career choice, and family situation, as well as expectations and fears about the future. The participant was encouraged to describe freely and then the interviewer asked more follow-up questions about specific events. The question, “In what way has your attitude toward past/present/future changed during your life?” was also asked. The follow-up interview (18 months later) was conducted in the similar manner, with the participant prompted to reflect on the past, present, and future using the Cottle’s Circles Test in the beginning of the interview and expanding on what has happen during the last 18 months.

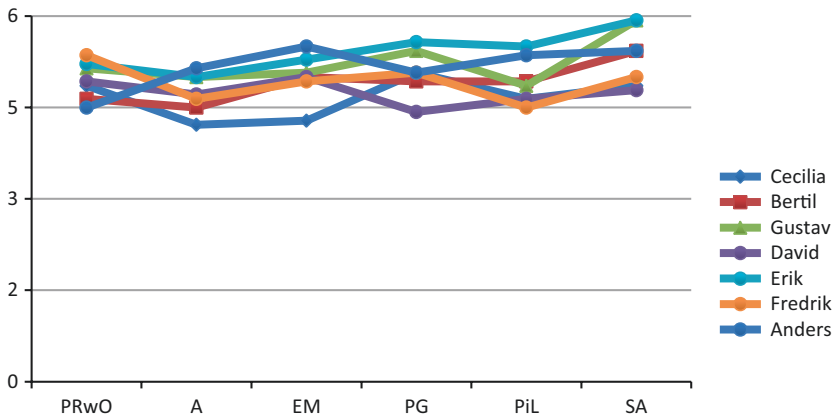
## Data Analysis

Our overall strategy was to perform an in-depth case study with seven people, to analyze the interviews, and to summarize all the self-report results, looking for overlapping patterns. We used regular scoring procedures to calculate the scores for the self-report inventories (SPWB, SWLS, Life Events, BDI-II, and SCL-90) and we used the procedure by Marie Wiberg et al. (2012) to calculate the BTP level on the S-ZTPI.

The interviews were video-recorded and transcribed carefully at both study occasions. The transcripts were analyzed using Interpretative Phenomenological Analysis (IPA; Smith, Flowers, & Larkin, 2009). Interview analysis was also done according to the hypotheses of “ideal trio”—Past Positive, Present Hedonistic, Future—from Boyd and Zimbardo (2005, pp. 101–103) in order to get empirical narratives from the participants.

### Keeping the Balance over Time

As expected, our sample of seven people with a *fully balanced TP profile* (level 5 or level 6) according to Marie Wiberg and colleagues (2012) were free of any psychopathological symptoms (low scores on SCL-90) and free of depressive symptoms (low scores on BDI-II). They were satisfied with their lives (high to very high scores on SWLS) and had high to very high scores on all six subscales of the Scales of Psychological Well-Being (SPWB); PRwO, A, EM, PG, PiL and SA (see Fig. 4.1).



**Fig. 4.1** Scores on the subscales of the Scales of Psychological Well-Being (SPWB) for each participant with BTP profile in the study. *Notes: \*Names of the participants are fictive in alphabetical order; \*\* Name of the subscales of SPWB: PRwO = Positive Relations with Others; A = Autonomy; EM = Environmental Mastery; PG = Personal Growth; PiL = Purpose in Life; SA = Self-Acceptance*

The results show that people with BTP profiles have positive, warm, satisfying, and trusting relations with others (Positive Relations with Others;  $M = 4.9$ ); they are concerned about the welfare of others; capable of strong empathy, affection, and intimacy. They are autonomous (Autonomy;  $M = 4.7$ ), self-determining and independent; able to resist social pressures to think and act in certain ways; regulate behavior from inside; and evaluate the self by personal standards. They have a sense of mastery and competence in managing the environment (Environmental Mastery;  $M = 5.0$ ); control complex array of external activities; make effective use of surrounding opportunities; and are able to choose or create contexts suitable to personal needs and values (Personal Growth;  $M = 5.1$ ). This provides a feeling of continued development; they see their self as growing and expanding; are open to new experiences; have a sense of realizing their potential; see improvement in the self and behavior over time; and change in ways that reflect more self-knowledge and effectiveness. They have goals in life and a sense of directedness (Purpose in Life;  $M = 4.9$ ); they feel there is meaning to their present and past life; they hold beliefs that give life purpose; and they have aims and objectives for living. They have a positive attitude toward the self; acknowledge and accept multiple aspects of the self, including good and bad qualities; and feel positive about their past life. Their scores are highest on the Self-Acceptance subscale ( $M = 5.3$ ) in comparison to the other subscales on the SPWB.

We observed that four of the seven participants had a stable BTP profile—that is, they had the *same level* of BTP over the 18-month period (see Table 4.1): level 6 (Bertil, David) and level 5 (Cecilia, Gustav). One participant (Erik) achieved an *increased level of balance*, and two other participants (Anders, Fredrik) experienced a *decrease in their level of balance*. Further, we provide excerpts from the interviews, our observations, and interpretations, which we hope will give a fuller picture of the BTP profiles and lead to deeper understanding.

### *Dynamics of Those Who Kept the Same Level of Balance—Level 6*

**Bertil, 25:** In the follow-up interview, he indicated that student parties had become less important; however, he had become more impulsive (higher PH) and less worried about making a wrong decision (lower FN).

**Table 4.1** Means for every six subscale of S-ZTPI and levels of balance for the S-ZTPI from first study occasion (T1) and second study occasion (T2)

Subscales S-ZTPI	Past Negative (PN)		Past Positive (PP)		Present Fatalistic (PF)		Present Hedonistic (PH)		Future Negative (FN)		Future Positive (FP)		BTP level (M. Wiberg et al., 2012)	
	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2		
Limit scores	1.00<X>2.50	3.50<X>5.00	1.00<X>2.50	2.70<X>3.30	1.00<X>2.50	2.70<X>3.30	1.00<X>2.50	2.70<X>3.30	1.00<X>2.50	3.00<X>4.00	0->6	0->6	0->6	
Study occasion	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
<b>Anders</b>	1.80	1.40	4.22	4.11	1.78	1.33	2.73	<b>2.60<sup>a</sup></b>	<b>2.70<sup>a</sup></b>	<b>2.50<sup>a</sup></b>	3.91	<b>4.09<sup>a</sup></b>	<b>5</b>	<b>3</b>
<b>Bertil</b>	1.40	1.20	4.00	4.33	1.56	1.89	3.13	3.27	2.30	1.60	3.09	3.18	<b>6</b>	<b>6</b>
<b>Cecilia</b>	1.80	2.10	4.22	4.67	1.89	1.67	2.93	3.20	2.20	<b>2.50<sup>a</sup></b>	<b>2.82<sup>a</sup></b>	3.18	<b>5</b>	<b>5</b>
<b>David</b>	2.00	1.70	4.00	4.22	1.67	1.56	2.80	3.00	2.30	1.90	3.27	3.45	<b>6</b>	<b>6</b>
<b>Erik</b>	1.60	1.40	<b>3.44<sup>a</sup></b>	4.11	1.56	1.11	2.73	3.00	2.00	1.70	3.55	3.82	<b>5</b>	<b>6</b>
<b>Fredrik</b>	1.80	1.70	4.11	<b>3.11<sup>a</sup></b>	<b>2.89<sup>a</sup></b>	2.44	3.13	2.73	1.90	1.60	3.18	<b>2.91<sup>a</sup></b>	<b>5</b>	<b>4</b>
<b>Gustav</b>	1.90	1.40	4.22	4.44	<b>2.67<sup>a</sup></b>	1.67	3.20	<b>2.33<sup>a</sup></b>	2.00	2.00	3.73	3.45	<b>5</b>	<b>5</b>

<sup>a</sup>Means falling outside the limit scores are marked with bold print<sup>b</sup>Names of the participants are fictive and are presented in alphabetical order

According to the Life Events scale and interviews, a year ago he was afraid that his girlfriend might have gotten pregnant. “Relationship changes the sense of time—future gets bigger and more concrete.” He reevaluated the fact that he was not accepted to the police program and now he sees this in a more positive light.

**David, 23:** In the follow-up interview, he had a more positive reevaluation of the past (higher PP), the present got a higher hedonistic accent (higher PH), some important decisions were made over the year and he feels more relaxed (lower FN, lower FP). According to the Life Events scale and interviews, he broke up with his girlfriend, was feeling relieved, and was more free to talk with other people now, to speak to other girls, and to step outside his comfort zone—he had a homosexual experience with a relative as a means of self-exploration and a desire to try something new.

#### *Dynamics of Those Who Kept the Same Level of Balance—Level 5*

**Cecilia, 29:** In the follow-up interview, there was a slight change of focus, the participant felt less excitement, and was more in the present moment (higher PH). She had reevaluated some issues, was less worried about the future, and had a slight dissatisfaction with the current work situation (PF, higher FN); she indicated some signs of stress at work, early signs of burnout. She became better at planning her work activities (higher FP), making more realistic judgments on how much time should be taken, and continued to keep a work-leisure balance. According to the Life Events scale and interviews, there were some positive changes in working conditions and working hours, and she got married.

**Gustav, 27:** Between the two data-collection periods, he became more independent and more confident (lower PN), less hedonistic (lower PH), something important had happened during the year, and he was feeling more relaxed, self-confident, and had more personal agency (lower PF), as well as was goal directed and felt more flexibility (lower FP). According to the Life Events scale and interviews, his girlfriend became pregnant and it was a desired pregnancy. Gustav during the interview expressed that “It is the present where I create the future.”



*Dynamics of the Increased Level of Balance (from level 5 to level 6)*

**Erik, 25:** Participant showed more positive evaluation of the past (higher PP), a slight increase in excitement (higher PH), more precision and emphasis on having things get done on time, planning activities (higher FP). According to the Life Events scale and interviews, he got married and had his first sexual intercourse. His overall attitude was that of embracing the future and viewing it as full of new possibilities.

*Dynamics of Those Who Achieved a Decreased Level of Balance*

**Fredrik, 52:** His level of balance decreased (from 5 to 4). In the follow-up interview he displayed a less idealistic self-image (lower PP), and more frustration (PN), where he scored 4 on both the item “My decisions are mostly influenced by people and things around me” and the item “Things rarely work out as I expected.” He had a less risk-taking attitude and excitement (lower PH), and less worry (PF), and he scored 4 on the item “You can’t really plan for the future because things change so much.”

**Anders, 24:** His level of balance decreased (from 5 to 3). He became more content (lower PP, lower PN, lower PF), started a relationship, and became busier, had more things to keep up with, moved to a different city, and got into a desired study program.

**Testing the “Ideal Trio”**

So far, many of the different theoretical ideas of what BTP is and how it can manifest itself have been presented in the literature. In this section, we summarize the main hypotheses derived from Boyd and Zimbardo’s article (2005) regarding the idealized balanced time perspective and the “ideal trio” of Past Positive, Present Hedonistic, and Future. We present our empirical material that taps into those outlined hypotheses, but also what we have discovered beyond those hypotheses. The quotations from Boyd and Zimbardo (2005, pp. 101–103) appear in italic print, accompanied by a descriptive summary. In the

descriptions, we used the information from the self-rating Life Events scale and from the two interviews. We also illustrate some points by direct citations. Participants' fictitious names are present, but real ages are indicated.

### *Past Positive*

*“Past Positive brings past happiness and positive sense of self into the present; it is a reminder that painful periods are transitory, and it provides positive, optimistic expectations for the future.”*

The participants clearly express a very positive outlook on their past. They all come from full families with siblings. Their upbringing ensures they feel equal with their parents and older relatives. They feel attached to a specific place, such as a family's summer cabin, where they recall good times with their parents and other family members. They actively participate in family traditions and recurring events. Despite having some troubles in the past, they don't have regrets and recall mostly positive things; they express a certainty that “One can learn from the past” (Cecilia, 29). They have confidence, faith, and a positive attitude about the future; although it is fairly uncertain, they don't feel worried or anxious.

Past—not something I want to forget, I want it with me as much as possible. ... Based on past experience—it will work out in the end. (David, 23).

Somehow provide me good opportunities, to have a good future, I can feel. (Bertil, 25)

*“To the extent that people have developed a Past Positive TP they become their own positive role model, brimming with self-esteem and a high sense of self-efficacy.”*

Participants have strong personal agency in and responsibility for things they do. They are very determined, they accept different situations that happen to them, and they have the ability to extract positive views from them.

... the older you get, more often you see that the plans don't always work out, but these changes are not always negative, they can be positive. ... The point is to have something to aim for. (Gustav, 27)

Past and childhood is something positive for me that I feel has shaped me into who I am today. (David, 23)

*“An additional interesting aspect of Past Positive time perspective is its developmental history, of either being blessed with a supportive family and social environment in which more good than bad events were experienced, or cognitively rising above more negative or traumatic early life experiences by recasting them as learning experiences to be avoided or modified in the future.”*

The interviews supported both of these quotations. Six out of seven participants mentioned that they come from a full family with two parents and their families were very supportive. They considered that having a stable and secure home environment is “the key to good life” (David, 23). They expressed gratitude for their good past and a wish to secure the same for their own children (Gustav, 27). This past secure base makes them feel confident about a positive future. Furthermore, it transforms the feeling of future: “it gets bigger and more concrete” (Bertil, 25).

Two participants also demonstrated their ability to cognitively transform their negative/traumatic early life experiences. For example, Gustav listed several negative events (mental illness, abuse, economic problems, etc.) when responding on the Life Events scale, but during the interview he said: “I am spoiled, I don't have so much negative.... I almost feel guilty in front of other people who were not as lucky.” He transmitted self-confidence, he worked through those negative events in his life, and he transformed them into a source of knowledge and a resource for personal growth. He also had a certain image of himself in the future and was continuously comparing it to the present state. He continuously was reevaluating own goals and aims. Another participant (Fredrik, 52) had suffered a major back injury earlier in life that affected him dramatically. Currently, it is an everyday struggle for him to accept himself as he is right now, and to accept the meaning of this injury. He relies heavily on his current family, but strives to keep up the positive spirit and remains active utilizing most of his abilities.

*Present Hedonistic*

*“Present Hedonistic allows individuals to enter a greater range of daily “flow” experiences, to feel and experience life to the fullest.”*

Participants are very active people and have a wide range of interests, and they take part in a variety of events and activities. They also have a wide social network owing to their engagement in different activities: team sports, choir, church, and the like. They are aware of the present and enjoy it greatly.

Present is where I am, here and now ... is absolutely the greatest. ... It is in the present where I create the future. (Gustav, 27)

*“Present Hedonistic enables adults to sustain some of the childlike wonder at novelty and seek ever-new stimulation.”*

Participants were very socially engaged and some expressed a clear novelty and sensation seeking through their sporting activities (e.g., skiing, football, mountaineering), enjoying the adrenaline rush of a risky new sport, or expressing a desire to travel and see new places. Others had a different way of expressing this: through “little things, try to do something a little different from what has previously made. ... Never stopping exploration of one-self, for example, a homosexuality episode with a relative once the heterosexual relationship was over” (David, 23). And “It gives a boost to solve the problem—a bit of an adventure” (Bertil, 25).

*“Present Hedonistic enables to take pleasure in nature, in our solitude, as well as in intense friendships and romance.”*

Indeed, these participants expressed interest in being in nature (outdoor sports, walking the dog, observing nature on their own) or having time for themselves, staying at home, watching a movie, knitting, reading, and reflecting in solitude. And at the same time, they enjoy deep friendships and group activities (team sports, choir, meetings, discussions over coffee).

*Future*

*“The high future component ensures that individuals will avoid risks, when possible, will prepare for the negative consequences of unavoidable risks, and will temper their enjoyment of the present with an eye toward possible future consequences.”*

These BTP people emphasized the role of having a clear future plan, with specific goals and set priorities. All the plans have a reality check on them—these are all achievable plans within a specific time frame. Plans range from general career goals to specific trips. Plans incorporate a risk assessment: 27-year-old Gustav, for example, likes to travel and mountaineer, but not without proper preparations; 25-year-old Bertil enjoys active sports, but would not do something self-destructive—whatever risky sports he’s doing, he’s doing them with security.

I think I have influence on my life, over my choices and my choices have consequences. I think I’m controlling my life. (Cecilia, 29)

Society won’t work if I’ll be always doing only what’s fun, education is important! (Bertil, 25)

*“Future TP provides a rationale and strength in coping with the inevitable challenges of life.”*

Participants expressed confidence and positive outlook toward the future. They approach the future with an analytical perspective, weighing all the pros and cons and deciding on something specific. They showed understanding that life can bring some unexpected changes into their plans, but they want to be very well prepared for them, so despite the changes they could still achieve what they have originally planned. For example, Fredrik understands that his condition will worsen with time, thus he attends aqua aerobics classes to maintain his physical form.

... of course, things can be changed anyway; I see only myself as an obstacle in achieving something. (Gustav, 27)

*“Future focus also means taking care of business and the business of life, and increases probability of attaining one’s goals.”*

Participants expressed commitment to their plans; they feel enjoyment and are energized by what they have planned for themselves. Achieving steadily their future goals gives them positive energy. Although, theoretically, they see many opportunities for fun and entertaining activities, they prioritize the activities connected to their long-term goal. They also commit to the deadlines they set for themselves.

It's not that I can't be spontaneous, but I think it's good that you can plan. (David, 23)

I want to finish the studies, one of those things I have to do, feel good I'm studying something, I'll become something, getting it done ... labor market looks good. ... Pretty good track, sound track of where I am, which road I want to take. (Gustav, 27)

... I put studies on the first place ... otherwise the whole purpose of being here falls. (Bertil, 25)

*“Overreliance on or exclusive use of Future TP may block the full experience of life's emotions and the joys of playfulness and intimate human connections.”*

Although respondents are quite future oriented, they do not express a total commitment to that orientation. They “have time to be spontaneous when done” (David, 23) with their main task. For example,

I create opportunities to live in the present. (Bertil, 25)

Present is a combination of coincidences and plans I have. (Gustav, 27)

## Looking Beyond the “Ideal Trio”

Besides looking at the Boyd and Zimbardo's (2005, pp. 101–103) theorization, we wanted to see what else our participants would talk about. Here, we present our own empirical discoveries: *Nostalgic About the Past*, *Extended Present/Mindfulness*, *Longer Future Horizon*, and *Continuity*.

### *Nostalgic About the Past*

Some of the participants expressed vividly a very warm attitude toward their past, with a note of nostalgia about it. Although only 23 years old,

David clearly stated that he is nostalgic about the time when he was 8 or 9 years old, but doesn't get the same feeling about his time in high school. He goes through old photo albums. He grew up and feels equal with his parents and other older relatives, and through dialogue with them he feels even more connected to his childhood. On the other hand, 52-year-old Fredrik is also nostalgic about his past, but owing to a different reason—in his past he was healthy and a fully capable adult, and if not for the injury, his life could have been very different.

### *Extended Present/Mindfulness*

Some of the respondents described states that can be called Extended Present or Mindfulness, experiencing a flow that is sometimes trancelike. This is a fully present state for what may be a future-focused activity, but they enjoy the process and do not focus only on the product of their efforts. Meditative experience can come from being engaged in some activity, such as a sport or doing something around the house (Bertil, 25), or in being alone in the dark, with no sounds of TV or music and in a contemplative mood. Fredrik experiences mindfulness while walking his dog, at night, or when he is in pain; while walking, he pays attention to what is around him at the moment: trees, small noises, smells.

I can sit on the bus and look out of the window and philosophize, and time stands still. (David, 23)

### *Longer Future Horizon*

*“Projecting oneself into the future, imagining life after the person is no longer there—longer Future time perspective horizon.”*

During the interviews, we encountered participants who have a longer future TP horizon. They have a feeling of how life will be in the nearest five or six years: “I can see I have a job and that I and Y are together and we continue our journey and that we have children; that we meet with my brother” (Gustav, 27). Some also have long-term plans for the next 20 to 30 years (career plans, retirement plans), but they are less clear. They

tend to project themselves into the future. For example, “sometimes I think how it is/feels to be 70 or 80 years old” (David, 23). They are aware of death. Bertil’s grandparents are quite old and can be gone soon, and he accepts his own mortality: “I’m not afraid to die. I will definitely reflect on my relatives, but I don’t exist then and I don’t worry about myself” (Gustav, 27). They extend their future in care for the environment, so that the planet is still livable after they are gone. For example, 29-year-old Cecilia sorts garbage and is a vegetarian because she wants to reduce the ecological effect of meat production: “although that is small, but I do it anyway.” Fredrik, 52 years old, has dreams about the future: to become a pilot and to renovate the camper van for traveling around Europe. In his case, his goals are like a driving engine, and he takes baby steps toward achieving it, despite his physical condition.

... sometimes I get into philosophical mood and can think about that someone will die from my family. (David, 23)

### *Continuity*

The participants have a positive evaluation of their past and future, and this grants them a sense of continuity. There is congruence between their life goals and their life activities.

You can find the present moment in the past. (David, 23)

Past was supposed to be almost the same, for it’s where you are now, because of what you have been. (Gustav, 27)

## **Discussion**

The aim of this longitudinal case study was to obtain a deeper understanding of the construct of BTP. We selected seven people with the BTP profile according to our operationalization model (Marie Wiberg et al., 2012). We employed in-depth interviews and several self-report instruments, as well as a projective test. In addition, by testing the participants



on two occasions over a period of 18 months, we investigated the stability of the BTP construct. Finally, through the participants' narratives, we tested the "ideal trio" (Past Positive, Present Hedonistic, Future) in order to compare that with what previous literature has suggested (cf. Boyd & Zimbardo, 2005).

Our study is an in-depth case study (seven people), in which we were looking for overlapping patterns. Our results suggest that BTP people are mentally healthy, not depressed, and are satisfied with their life, scoring high to very high on the life satisfaction and psychological well-being inventories. These findings seem to confirm previous correlational studies in which people with BTP are not depressed, do not suffer from any kinds of disorders, and have high levels of psychological well-being and satisfaction with life.

In our Swedish BTP, the dominant view seems to be the present. This finding converges with Shostrom's (1968, p. 353, ref. in Bühler & Massarik, 1968) concept of *time competent person* in which the self-actualizing person is an individual who is primarily time competent. He or she is concerned with living fully in the present, but uses the past and future to make the present more meaningful.

Our interview analyses provided support for what we call Boyd and Zimbardo's (2005, pp. 101–103) hypotheses. Individuals with BTP have a clear and strong base in their positive attitude toward their past. It is built on being brought up in a family with siblings and actively participating in family traditions. Such a base encourages strong personal agency, self-esteem, and a sense of self-efficacy. These people often express gratitude for their past, but also they have the ability to extract positive thoughts and feelings by different events that happen in their life. They have clear and realistic goals for the future that motivate them to go further and pursue those goals, but when needed, they can also resist the temptations of the present moment.

People with the BTP profile can easily set priorities and deadlines, and their plans are realistic and achievable. They are confident in their future and have a practical and analytical perspective. However, they are not totally engulfed by the future; they live in the present, and they enjoy being spontaneous when they have completed their tasks. They enjoy

different kinds of activities, including sports, choir, traveling, cooking, and discussions. They have a rather large social network and equally enjoy spending time with their friends and having time for themselves.

Beyond Boyd and Zimbardo's (2005, pp. 101–103) theoretical hypotheses, we have discovered a few additional dimensions. The Boyd and Zimbardo (2005) hypothesis of "Present Hedonistic valuing every moment of life's journey before we get to our ultimate destination" was not directly expressed by the participants, but they showed how they took care of themselves in a good way and valued every present moment. They have a tendency to have a longer future TP horizon, often projecting themselves into the future for five or six years—or even 20 to 30 years, when they are 70 or 80 years old, or when they are gone, thinking about what will happen to the planet. Regarding the BTP people's view of the past, they seem to have a warm and deep relationship to their past, which is sentimental and nostalgic. They also experience extended present and mindfulness. These results support the notion of a Holistic Present (Zimbardo & Boyd, 2008) and the notion of an "extended now."

Lastly, they feel that different time frames are interconnected, creating a sense of continuity. Litvinovic (1998) refers to this continuity as *productive time orientation*, which includes a positive evaluation of the past and the future while dwelling in the present. There is a sense of continuity in all three time perspectives, but also a continuity between the Past Positive and the Future Positive. The analysis of the interviews showed that the participants were aware of the "now" and have a synchronicity between the present and the past and also between the present and the future.

Finally, we tested stability of the BTP profiles over time. We compared the level of balance between the study's two time periods and analyzed item by item their S-ZTPI responses and the impact of different life events on their levels of balance. In four out of seven participants, the level of balance did not change over the period of time; in two participants, the level of balance decreased owing to various life events discussed earlier; and in one participant, the level of balance increased with connection to a life event.

In summary, our results indicate a certain degree of stability in the BTP profile over time, suggesting that reaching a temporal balance and

keeping it for a certain period has “adaptive value.” In other words, people feel better adjusted to their environment by feeling well and being satisfied with their life. A stable BTP profile facilitates the sense of richer involvement with life, and developing a sense of continuity between temporal zones facilitates the process of finding deeper meaning in one’s existence.

Interestingly, it is not the events per se, but their personal interpretation within the personal context, that influences the TP. One participant in our BTP subsample almost got to be a father, and that created tension; whereas for another person it was a desired pregnancy that made him more relaxed and self-confident. For one person, being in a relationship creates balance and for another, breaking up with a girlfriend achieved that result. Not only do the life events themselves matter, but so does the greater context in which they evolve.

Boniwell and Zimbardo (2004) mention that flexibility and switchability are essential components of a BTP person, while evidence seems to suggest that temporal flexibility is important in dealing mostly with extreme circumstances; it does not tell us why such flexibility may be important in dealing with everyday life. According to Epel, Bandura, and Zimbardo (1999, p. 590), “the optimal time perspective depends upon the demands of the situation and its task and reward structure.” It may be better to be present-oriented when dealing with an acute crisis. While a future-oriented TP allows a greater degree of self-efficacy and fosters one’s optimism for future gains, a present orientation may be more effective in opening oneself to finding solutions to current challenges.

Contrary to previous BTP operationalization methods, our BTP subsample had only one woman and six men, with an average age of 30 and a majority being students. A limitation of this study is that it was conducted with only seven people who qualified for a BTP profile, and we did not have a non-BTP matching sample. At the same time, as we specified in the first part of the chapter, our way to conceptualize a BTP profile as an actual mirror of everyday life was to consider different levels of balance. Our results seem to match that view, in that different BTP levels correspond to different psychological profiles. In general, to consider and operationalize BTP in terms of levels of balance appeared to be useful,

especially in studying its stability over time. In the reality of everyday life, a person is more likely to hold “a nuanced” picture of time perspective, which might increase or decrease as time passes.

This kind of case study is typical in clinical psychology and does not have a control group. Our work seems to fit perfectly this purpose: an explorative and descriptive study that often helps further studies. It is important in explorative study to be careful in drawing conclusions; we do not know if the non BTP group actually would differ from the characteristics we found in the BTP group. In fact, the BTP group was contrasted with the non-BTP group in our level of balance. When we did use a quantitative approach, then we had a control group.

Further, the study was carried out in Sweden, which has a unique history. For the past 200 years there have been no wars on the Swedish territory, and that has allowed society to build an efficient and strong social welfare system, which also provides for a more stable economy. Education is free, and students also get support from the state. Such an economic base provides an additional feeling of security that things will work out positively in the future. Everyone is certain to find a job that she or he wants with compensation enough to provide for a family, as well as being able to count on the state for support in difficult times. Thus, characteristics of the well-known Swedish welfare system could be responsible for providing a special sociocultural background for our BTP sample. Therefore, it is important that similar studies are carried out in other countries, thereby allowing for cross-cultural comparisons. We believe it would be especially interesting to have studies undertaken outside of Western industrialized societies with high GDPs. Such alternative studies will assist in answering such questions: How do people find their balance in unstable economies? How do people find balance if they are religious, but not Christians? How do people find balance and continuity when they have to flee their home countries?

Now that we have discovered some bits of what it actually means to have a balanced time perspective, it is of outmost importance that we find ways to teach people how to find this balance in their own lives, to help them overcome the stresses and anxieties of daily life. We also believe it is important to link the level of balance found in this study with the

actual health of people. Who tends to lead a healthy life and who is at risk of developing chronic noncommunicable diseases (such as diabetes, hypertension, and coronary diseases)? Is there a way to prevent these noncommunicable diseases by balancing out one's time perspective? In our sample, we have seen that people with the BTP tend to be more oriented toward a healthy environment and sustainability, which is of utmost importance in our time. Therefore, helping people to develop balance in their own lives can also have an impact for all of us living on this planet.

## References

- Beck, A. T., Steer, R. A., & Brown, G. (2006). *Beck depression inventory—Manual, svensk version*. Sandviken: Psykologiförlaget AB.
- Bergson, H. (1889). *Essai sur les données immédiates de la conscience*. Translation (2007) *Time and Free Will*. Paris: Presses Universitaires de France.
- Boniwell, I. (2005). Beyond time management: How the latest research on time perspective and perceived time use can assist clients with time-related concerns. *International Journal of Evidence Based Coaching and Mentoring*, 3(2), 61–74.
- Boniwell, I. (2009). Perspectives on time. In S. J. Lopez & C. R. Snyder (Eds.), *The Oxford handbook of positive psychology* (2nd ed., Chapter 27, pp. 295–302). New York: Oxford University Press.
- Boniwell, I., Osin, E., Linley, P. A., & Ivanchenko, G. V. (2010). A question of balance: Time perspective and well-being in British and Russian samples. *The Journal of Positive Psychology*, 5(1), 24–40.
- Boniwell, I., & Zimbardo, P. G. (2004). Balancing time perspective in pursuit of optimal functioning. In P. A. Linley & S. Joseph (Eds.), *Positive psychology in practice* (Chapter 10, pp. 165–178). New Jersey: John Wiley & Sons.
- Boyd, J. N., & Zimbardo, P. G. (2005). Time perspective, health, and risk taking. In A. Strathman & J. Joireman (Eds.), *Understanding behavior in the context of time: Theory, research and application* (pp. 85–107). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Carelli, M. G., & Olsson, C. J. (2015). Neural correlates of time perspective. In M. Stolarski, N. Fieulaine & W. van Beek. (Eds.), *Time perspective theory: Review, research and application—Essays in honor of Philip G. Zimbardo* (1st

- ed., pp. 231–242). Cham, Switzerland: Springer International Publishing. ISBN: 978-3-319-07367-5.
- Carelli, M. G., & Wiberg, B. (2012). Time out of mind temporal perspective in adults with ADHD. *Journal of Attention Disorders*, 16(6), 460–466.
- Carelli, M. G., Wiberg, B., & Åström, E. (2015). Broadening the TP profile: Future negative time perspective. In M. Stolarski, N. Fieulaine & W. van Beek (Eds.), *Time perspective theory; Review, research and application—Essays in honor of Philip G. Zimbardo* (1st ed., Chapter 5, pp. 87–97). Cham, Switzerland: Springer International Publishing. ISBN: 978-3-319-07367-5.
- Carelli, M. G., Wiberg, B., & Wiberg, M. (2011). Development and construct validation of the Swedish Zimbardo time perspective inventory. *European Journal of Psychological Assessment*, 27(4), 220–227.
- Cottle, T. J. (1967). The circles test: An investigation of perceptions of temporal relatedness and dominance. *Journal of Projective Techniques & Personality Assessment*, 31(5), 58–71.
- Cottle, T. J. (1976). *Perceiving time: A psychological investigation with men and women*. New York: Wiley.
- Derogatis, L. R. (1977). *The SCL-90 manual I: Scoring, administration and procedures for the SCL-90*. Baltimore: Johns Hopkins University School of Medicine, Clinical Psychometrics Unit.
- Derogatis, L. R., Lipman, R. S., & Covi, L. (1973). SCL-90: An outpatients psychiatric rating scale—a preliminary report. *Psychopharmacological Bulletin*, 9, 13–28.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71–75.
- Drake, L., Duncan, E., Sutherland, F., Abernethy, C., & Henry, C. (2008). Time perspective and correlates of wellbeing. *Time & Society*, 17(1), 47–61.
- Epel, E., Bandura, A., & Zimbardo, P. G. (1999). Escaping homelessness: The influences of self-efficacy and time perspective on coping with homelessness. *Journal of Applied Social Psychology*, 29, 575–596.
- Fraisse, P. (1957). La période réfractaire psychologique. *L'année Psychologique*, 57(2), 315–328.
- James, W. (1890). *The principles of psychology* (Vol. 1). New York: Henry Holt and Co. (Reprint, 1950, New York: Dover).
- Lewin, K. (1942). Time perspective and morale. In G. Lewin (Ed.), *Resolving social conflicts* (pp. 103–124). New York: Harper.
- Lewin, K. (1951). *Field theory in the social sciences: Selected theoretical papers*. New York: Harper.

- Litvinovic, G. (1998). *Perceived change, time orientation and subjective well-being through the life span in Yugoslavia and the United States*. Unpublished doctoral dissertation, University of North Carolina, Chapel Hill.
- McTaggart, J. E. (1908). The unreality of time. *Mind*, 17(68), 457–474. Retrieved from <http://www.jstor.org/stable/2248314>
- Nuttin, J. R., & Lens, W. (1985). *Future time perspective and motivation: Theory and research method*. Leuven: Leuven University Press & Lawrence Erlbaum.
- Paykel, E. S. (1983). Methodological aspects of life events research. *Journal of Psychosomatic Research*, 27(5), 341–352.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069–1081.
- Seifert, T. A. (2005). The Ryff scales of psychological well-being. Center of Inquiry Home. University of Iowa. Recuperado de. Retrieved from <http://www.liberalarts.wabash.edu/ryff-scales>
- Shostrom, E. L. (1964). An inventory for the measurement of self-actualization. *Educational and Psychological Measurement*, 24, 207–218.
- Shostrom, E. L. (1968). Time as an integrating factor. In C. Bühler & F. Massarik (Eds.), *The course of human life: A study of goals in the humanistic perspective* (Chapter 20, pp. 351–359). New York: Springer Publishing Company, Inc.
- Shostrom, E. L. (1974). *Manual for the personal orientation inventory*. San Diego, CA: Educational and Industrial Testing Service.
- Sircova, A., & Mitina, O. (2008). *Balanced time perspective (BTP) as a resource of person's optimal functioning*. Paper presented at the 4th European Conference on Positive Psychology, Opatija, Croatia.
- Sircova, A., van de Vijver, F. J., Osin, E., Milfont, T. L., Fieulaine, N., Kislali-Erginbilgic, A., ... Boyd, N. J. (2014). A global look at time—A 24-country study of the equivalence of the Zimbardo time perspective inventory. *Sage Open*, 4(1), 1–12. <https://doi.org/10.1177/2158244013515686>
- Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis: Theory, method and research*. London: SAGE Publications Ltd.
- Stolarski, M., Bitner, J., & Zimbardo, P. G. (2011). Time perspective, emotional intelligence and discounting of delayed awards. *Time & Society*, 20(3), 346–363.
- Stolarski, M., Wiberg, B., & Osin, E. (2015). Assessing temporal harmony: The issue of a balanced time perspective. In M. Stolarski, N. Fieulaine & W. van Beek (Eds.), *Time perspective theory; Review, research and application—Essays in honor of Philip G. Zimbardo* (1st ed., Chapter 3, pp. 57–71). Cham, Switzerland: Springer International Publishing. ISBN: 978-3-319-07367-5.



- Wiberg, B., Wiberg, M., Carelli, M. G., & Sircova, A. (2012). *A qualitative and quantitative study of seven persons with balanced time perspective (BTP) according to S-ZTPI*. Poster presentation at the 1st International Conference on Time Perspective and Research: Converging Paths in Psychology Time Theory and Research (pp. 120–120). ESPACOBANCO.
- Wiberg, M., Sircova, A., Wiberg, B., & Carelli, M. G. (2012). Operationalizing balanced time perspective in a Swedish sample. *The International Journal of Educational and Psychological Assessment*, *12*(1), 95–107.
- Worrell, F. C., & Zeno, R. M. (2007). The reliability and validity of Zimbardo time perspective inventory scores in academically talented adolescents. *Educational and Psychological Measurement*, *67*(3), 487–504.
- Zhang, J. W., Howell, R. T., & Stolarski, M. (2013). Comparing three methods to measure a balanced time perspective: The relationship between a balanced time perspective and subjective well-being. *Journal of Happiness Studies*, *14*(1), 169–184.
- Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology*, *77*, 1271–1288.
- Zimbardo, P. G., & Boyd, J. N. (2008). *The time paradox: The new psychology of time that will change your life*. New York, NY: Free Press.
- Åström, E., Wiberg, B., Sircova, A., Wiberg, M., & Carelli, M. G. (2014). Insights into features of anxiety through multiple aspects of psychological time. *Journal of Integrative Psychology and Therapeutics*, *2*(1), 3.

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