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ARTICLE

Balanced Time Perspective as a Pathway to Flourishing: Examining the Role of Gratitude and Sense of Positive Agency

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ABSTRACT
Time is a human's biggest ally. Balanced Time Perspective (BTP) is one of the crucial variables in the psychological exploration of time. BTP is characterized by a balance between past, present, and future times, essential for flourishing. Using the construal level theory, the present study investigates the influence of BTP on flourishing. The study also examines the mediating role of gratitude and a sense of positive agency in the above-mentioned relationship. Data were collected from 521 respondents (66.6% male, 33.4% female) aged 18 to 29 years across various regions as well as belonging to different residential settings, with 48.6% residing in urban areas, 25.9% in semi-urban areas, and 25.5% in rural areas of India using a purposive sampling method. The sample consisted of individuals with diverse educational qualifications, including undergraduate, postgraduate, and PhD degree holders, and represented both working and non-working individuals. Well-standardized instruments were used to measure the study variables. The data were analyzed using Jamovi software (Version 2.3.26). The results revealed that BTP significantly predicted flourishing both directly and indirectly via gratitude and a sense of positive agency. This study is among the first to explore these mediating relationships, advancing scholarly understanding of how BTP facilitates flourishing. Implications of the study are discussed in the light of study findings.

KEYWORDS
Balanced Time Perspective, gratitude, sense of positive agency, flourishing, Construal Level Theory

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Introduction

Time is an essential aspect of human existence, including both objective (clock time) and subjective (personal time). Time perspective (TP), one of the most robust constructs in the psychological manifestation of time, gained traction after the seminal work of Zimbardo and Boyd (1999). These researchers emphasized temporal flexibility and proposed a theoretical concept called Balanced Time Perspective (BTP), which refers to the ability to blend and flexibly engage with different time horizons depending on the situational demands and needs, goals, and values of the individual. BTP has been linked with various correlates of flourishing, such as subjective well-being (Boniwell et al., 2010; Drake et al., 2008), life satisfaction (Ballabrera & Pérez-Burriel, 2022), emotional intelligence (Stolarski et al., 2011), happiness and more positive effects (Webster et al., 2021). Individuals with BTP engage with time flexibly, drawing from past experiences, making present-moment decisions, and planning effectively for the future. This adaptability is crucial in promoting flourishing, a holistic state of well-being encompassing positive mental health, life satisfaction, purpose, and psychological growth (Keyes, 2002; VanderWeele, 2017).

Flourishing represents an optimal state of functioning, integrating emotional, psychological, and social well-being (Diener et al., 2010). It extends beyond happiness and encompasses purpose, resilience, and meaningful relationships (Huppert & So, 2013). Time is a crucial and finite resource, and the way individuals manage it significantly impacts their well-being and performance. As Robinson and Godbey noted, “time has become the most precious commodity and the ultimate scarcity” (1999, p. 25). This highlights the growing need for individuals to develop an adaptive and flexible approach to time that optimizes psychological functioning. BTP provides such a framework, enabling individuals to flexibly shift between temporal orientations in response to situational demands, serving as a crucial mechanism for fostering flourishing (Stolarski et al., 2015).

Despite theoretical links between BTP and flourishing, research on the mechanisms underlying this association remains limited (Burzynska & Stolarski, 2020). Cunningham et al. (2015) proposed a dual pathway framework arguing that BPTs have both direct and indirect effects on well-being outcomes, i.e., flourishing, which makes it imperative to study the role of mediating variables in the relationship between these two concepts.

BTP significantly predicts gratitude, that is a disposition marked by appreciative reflection on past experiences and mindful engagement with the present (Szczęśniak & Timoszyk-Tomczak, 2018). This gratitude functions as a psychological resource that amplifies positive affect and perceptions of abundance, thereby enhancing flourishing through elevated well-being and life satisfaction (Valdez & Datu, 2021).

Additionally, how individuals perceive and balance their time can significantly influence their sense of positive agency beliefs (SoPA), perceived control over life events, and decision-making processes (Germano & Brenlla, 2021). SoPA, the belief in one's ability to control life outcomes, is crucial in the psychological resilience and optimal functioning of the individual (Bandura, 2001; Tapal et al., 2017). Individuals with a BTP tend to exhibit higher SoPA, as they can effectively integrate past experiences, present decision-making, and future planning. This ability fosters self-regulation, explaining their tendency to postpone immediate gratification in favor of long-term goals and aspirations, ultimately leading to optimal functioning (Boniwell & Zimbardo, 2015).

Based on these recommendations and literature, the present study examines the impact of BTP on flourishing both directly and indirectly through the mediating roles of gratitude and SoPA. The Construal Level Theory, or CLT (Trope & Liberman, 2010) has been used to explain the relationship among the study variables. CLT posits that optimal psychological functioning arises from the synergistic integration of high- and low-level construal as high construal helps in setting and planning for distant goals, feeling grateful regarding the past, and low-level construal characterizes present-mindedness and reaping the benefit of current situations (Alfalah & Alganem, 2020; Trope & Liberman, 2010). By elucidating how BTP harmonizes these temporal construals, this study empirically validates a dual-pathway mechanism—grounded in gratitude and SoPA—through which adaptive temporal cognition fosters flourishing.

Theory and Hypotheses

The Construal Level Theory has been used to delineate the associations between BTP, gratitude, SoPA, and flourishing. CLT posits that while individuals exist in the present, their thoughts, emotions, and actions are shaped by past experiences, future projections, and imagined alternatives through abstract mental construals (Trope & Liberman, 2010). This cognitive ability allows individuals to reflect on past events, plan for the future, anticipate social reactions, and engage in counterfactual thinking despite the irreversible nature of time. Such mental representations, which do not exist in reality, are structured through an egocentric concept known as psychological distance. The farther an object is from immediate experience (high psychological distance), the more abstract its mental construal, whereas closer objects are represented in more concrete terms (Trope & Liberman, 2010). Different TPs can be conceptualized differently on the level of abstract mental construal in a way that present TPs can reflect more concrete construal. In contrast, the future and past reflect more abstract temporal construal (Stolarski et al., 2018). The ability to switch between now and then, from abstract to concrete, characterizes BTP (Zimbardo & Boyd, 1999).

Cognitive and motivational processes such as BTP are crucial in maintaining and elevating overall well-being (Lyubomirsky, 2001). Individuals with BTP can switch effectively between a high level of abstraction when reflecting on their future goals and aspirations to a lower level while dealing with current experiences and events (Stolarski et al., 2018). Individuals who possess temporal plasticity, an ability to experience a sense of positivity and gratitude toward their past, maintain an optimistic

outlook toward the future, and remain attentive to the present, are more likely to be in a state of flourishing (Burzynska & Stolarski, 2020). BTP also characterizes self-control, proactiveness, and an efficacious belief, enabling individuals to set meaningful goals, navigate present challenges, and cultivate optimal functioning (Boniwell & Zimbardo, 2015). Based on these theoretical foundations, the current study posits that BTP can play a crucial role in fostering flourishing by nurturing temporal flexibility and cultivating a sense of gratitude and positive agency.

BTP and Flourishing

Zimbardo and Boyd (2008) conceptualized TP as "the often-nonconscious process whereby the continual flows of personal and social experiences are assigned to temporal categories, or time frames, that help to give order, coherence, and meaning to those events." TP encompasses affective, cognitive, and social components and is influenced by various psychological, social, and situational factors (Boniwell & Zimbardo, 2015).

Zimbardo and Boyd's (1999) conceptualization of TP comprises five temporal categories having a dynamic influence on an individual's thoughts, actions, motivation, and emotions. These temporal frames are *Past Positive*, wherein individuals have a positive and warm attitude towards their life; *Past Negative*, depicting an aversive and negative towards past life, which can be real or imagined traumatic experiences; *Present Hedonistic* characterizing immediate gratification, inability to resist to the temptations, sensation seeking, and little concerns towards future; *Present Fatalistic* relates to the belief that future is already pre-determined and a state of hopelessness and helplessness towards future. Theoretical development and empirical investigation led to further distinctions in *Future* as *Future Positive* and *Future Negative* (Košťál et al., 2016). *Future Positive* thinking prioritizes personal goals and considers the long-term effects of current choices, whereas *Future Negative* refers to worrying about the future and anticipating unpleasant events. An individual can only focus on one TP at a time, leading to the ignorance of other TPs due to our limited attentional capacity (Stolarski et al., 2018).

Every individual has a unique combination of TPs to define the world and develop expectations, goals, contingencies, and various alternatives (Zimbardo & Boyd, 1999). Generally, individuals tend to use one TP more frequently than others, forming temporal biases (Zimbardo & Boyd, 2008). These temporal biases become increasingly dominant and consistent, eventually integrating into an individual's personality, i.e., functioning as a character trait (Boyd & Zimbardo, 2005). Excessive use of one particular TP while ignoring others is detrimental to an individual's overall functioning (Boniwell & Zimbardo, 2015). Zimbardo and Boyd (1999) emphasized BTP, which is characterized by the ability to blend and flexibly engage with different time horizons depending on the individual's situational needs, goals, and values. In BTP, an individual is not a "slave" to any particular TP and can easily switch between various time frames at ease (Stolarski et al., 2018). Zimbardo and Boyd (2008) argued that individuals should strive for temporal balance to achieve optimal well-being and psychological health.

BTP has been empirically operationalized in various statistical ways over the years, including cluster analysis (Boniwell et al., 2010), the cutoff point approach (Drake et al., 2008), and Deviation from Balanced Time Perspective, or DBTP (Stolarski et al., 2011). Although each method has its advantages and disadvantages, DBTP has been recognized as the most reliable and widely used approach for assessing BTP (Stolarski et al., 2018; Zhang et al., 2014). Importantly, BTP is inversely related to DBTP, meaning that higher DBTP values indicate a less balanced time perspective. Zhang et al. (2014) further emphasized that, rather than classifying people as balanced or unbalanced, DBTP provides a more meaningful assessment by quantifying the degree of imbalance; thus, the researchers concluded that DBTP is a better predictor of well-being outcomes and a more practical indicator of BTP, as it reflects the degree of imbalance rather than simply determining balance. In a recent development, Jankowski et al. (2020) proposed a new ideal time profile. They proposed that the calculation of deviation from a balanced time perspective from their ideal time profile predicts well-being more robustly than the earlier values proposed by Zimbardo and Boyd (2008). This study uses DBTP to assess BTP, measuring deviations from a balanced time perspective with ideal time profile values obtained from both Zimbardo and Boyd (2008) and Jankowski et al. (2020). In addition, the study analyzes which model better predicts flourishing. DBTP is based on the assumption that each TP measurement has an "optimal" point. BTP depends on a person's proximity to these ideal points.

The study of flourishing has gained popularity in various academic fields to the point that it is now part of mainstream discourse, as it provides a holistic view of wellness. Currently, most mental health research focuses on flourishing (Willen et al., 2022). Flourishing has been defined in positive psychology in many ways as a state of "complete mental health" and "high levels of well-being" (Keyes, 2002). VanderWeele (2017) interchangeably used the terms "flourishing" and "well-being" defining the former as "the state in which all aspects of person's life are good." Huppert and So (2013) conceptualized flourishing as "the experience of life going well and functioning efficiently and optimally." All these definitions of flourishing have one common thread: flourishing corresponds to a high level of mental well-being, socio-psychological prosperity, and a state of positive functioning (Willen et al., 2022). Flourishing is a much broader concept than psychological well-being and encompasses positive relationships, purpose in life, feeling of competence, and optimal coping resources (Diener et al., 2010).

Previous research has examined the role of BTP on different aspects of well-being, but scant literature is available that examines the role of BTP in flourishing. BTP significantly correlates with positive and negative well-being dimensions (Diaconu-Gherasim et al., 2021). Individuals with BTP were reported to have more happiness, life satisfaction, more positive effects, meaning in life, and less depression and anxiety (Webster et al., 2021; Zhang & Howell, 2011). DBTP was the highest contributor to life satisfaction and well-being among the other personality variables (Stolarski & Matthews, 2016; Zhang & Howell, 2011). BTP has demonstrated superior predictive power for flourishing compared to other TPs when considered independently (Webster et al., 2021). Recent theoretical models, such as the 3P model of well-being

(Durayappah, 2011) and CLT theory (Trope & Liberman, 2010), emphasize that an individual's flourishing depends on how they construe their past, present, and future. The 3P model emphasizes the importance of temporal balance in fostering well-being, as it offers a sense of continuity that enables individuals to engage with the present, plan for the future, and reflect and appreciate their past experiences (Durayappah, 2011). Hence, **Hypothesis 1 (H1)** is as follows: BTP will positively predict flourishing, or DBTP will negatively predict flourishing.

Gratitude as a Mediator

Gratitude is one of the most indispensable and prized social emotions that significantly contribute to a good life. Emmons (2004) defined gratitude as a "social glue" that strengthens relationships and acts as a backbone of human society. Furthermore, gratitude has been conceptualized as (a) the dispositional tendency of people to respond, recognize, and appreciate the benevolence of others (McCullough et al., 2004); (b) "passing emotions" resulting from a particular event (Watkins & Bell, 2017); (c) as a wider life orientation that values the good in life (Wood et al., 2010). Researchers have tried to link gratitude and TPs by proposing that gratitude can be fostered via past positives (e.g., Szczęśniak & Timoszyk-Tomczak, 2018; Zimbardo & Boyd, 2008). When individuals feel appreciative, they magnify the positive aspects of their memories, dwell on happy times, and pay more attention to what they have rather than focusing on what they lack (Roberts et al., 2015; Watkins & Bell, 2017).

Promoting and cultivating gratitude can considerably affect human flourishing. Valdez and Datu (2021) reported a significant positive association between gratitude and flourishing. Previous researchers have reported significant associations between gratitude and well-being outcomes such as happiness, positive effect, life satisfaction, positive life orientation, meaning in life, reduced stress, and improved self-esteem (Roberts et al., 2015; Wood et al., 2010). Burzynska and Stolarski (2020) proposed a trait–behavior model explaining how TPs lead to well-being via well-being boosters such as gratitude. Individuals who reflect on positive past experiences are more likely to cultivate and express gratitude (Zhang et al., 2014), a key contributor to flourishing (Valdez & Datu, 2021). In summary, BTP characterizes a positive and appreciative view of the past, present, and future, fostering a grateful orientation towards life and enhancing individuals' propensity to flourish. Therefore, **Hypothesis 2 (H2)** is the following: Gratitude will mediate the relationship between BTP and flourishing.

SoPA as a Mediator

Sense of agency (SoA) refers to the belief that individuals initiate their own actions and exert control over both their behaviors and the resulting outcomes (Synofzik et al., 2013). Nomological terms similar to SoA are "freedom," "free will," "control," and "authorship" (Tapal et al., 2017). SoA encompasses the belief that an individual is not just a slave of their situations but have control over their body, thoughts, and

environment. SoA is deeply embedded in the social cognitive theory (Bandura, 2001), highlighting the dynamic interplay of personal characteristics, contextual factors, and behaviors. Tapal et al. (2017) postulate two moderately correlated facets of SoA as a Sense of Positive Agency (SoPA) and a Sense of Negative Agency (SoNA). SoPA beliefs are characterized by a sense of control over thoughts, body, and environment, whereas SoNA corresponds to a state of hopelessness and helplessness (Tapal et al., 2017). TPs such as *Future* and *Present Hedonistic* showed positive and negative associations with the ability to self-control (Germano & Brenlla, 2021). Limited research has examined the association between BTP and SoPA, though theoretically, they seem correlated. Individuals with a BTP will likely have the mental abilities needed to maintain a positive sense of control over their lives, allowing them to set meaningful goals, persist in the face of difficulties, and flexibly adjust their behavior to achieve desired results (Zimbardo & Boyd, 2008).

The perceptions of SoPA are essential for maintaining well-being (Tapal et al., 2017). The concept of agency is crucial for self-regulatory behavior that can elevate the happiness and well-being of the individual (Renes & Aarts, 2017). The absense of SoPA beliefs is linked with negative well-being outcomes such as increased stress, anxiety, and feelings of hopelessness (Moore & Fletcher, 2012). On the contrary, SoPA was a positive predictor of positive function, life satisfaction, and a positive outlook toward life (Bandura, 2001). In summary, by adopting temporal flexibility, individuals will have greater control and agency over themselves, which creates a virtuous cycle of flourishing. Consequently, **Hypothesis 3 (H3):** SoPA will mediate the relationship between BTP and flourishing.

Gratitude and SoPA as a Parallel Mediator

BTP fosters flourishing through two distinct yet complementary pathways: gratitude and SoPA. BTP is characterized by a high past-positive orientation, fostering a sense of gratitude and appreciation for both past and present experiences, which ultimately contributes to flourishing (Valdez & Datu, 2021). Additionally, BTP is marked by a strong future orientation and a low present-fatalistic perspective, promoting agentic beliefs that empower individuals with a greater sense of control over their lives. This sense of empowerment and ability to be the life navigator leads to an elevated flourishing state (Tapal et al., 2017). Based on this, **Hypothesis 4 (H4)** is as follows: Gratitude and SoPA will parallel mediate the relationship between BTP and flourishing.

Gap Analysis and Current Study

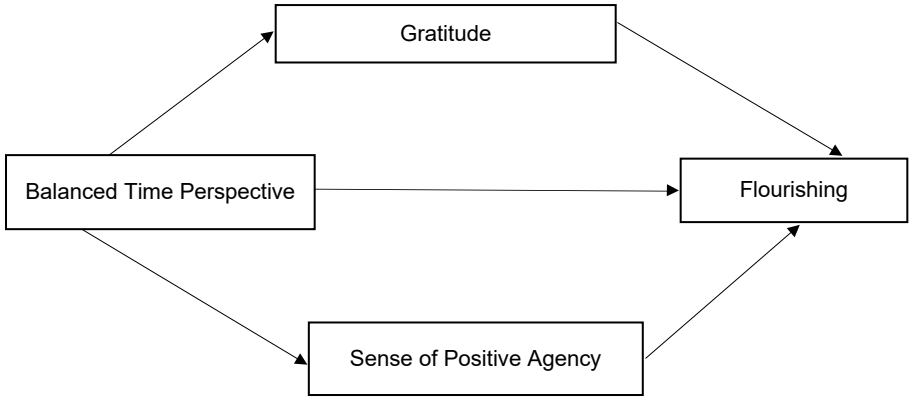
BTP is among the strongest predictors of various flourishing indicators (Boniwell & Zimbardo, 2015; Diaconu-Gherasim et al., 2021; Stolarski et al., 2018; Zhang et al., 2014). However, there is a lack of research exploring the intermediary mechanism behind the association between BTP and flourishing (Burzynska & Stolarski, 2020; Osin & Boniwell, 2024). Cunningham et al. (2015) introduced a dual-pathway model to explain the connection between BTP and flourishing. According to this model, BTP enhances flourishing through two distinct mechanisms: a top-down pathway, where

BTP directly fosters flourishing by shaping positive perceptions of past experiences and overall life evaluation, and a bottom-up pathway, where BTP indirectly promotes flourishing by nurturing positive traits such as gratitude and self-efficacy. The current study empirically examines the Cunningham et al. (2015) dual-pathway model by testing both the direct and indirect effects (via gratitude and SoPA) of BTP on flourishing. The present study aims to examine the relationship between BTP, flourishing, gratitude, and SoPA. Based on the recommendations of previous research, e.g., Zhang et al. (2014) and Jankowski et al. (2020), deviation from balance time perspective is used for the assessment of BTP. As mentioned before, DBTP represents the inverse of BTP. Therefore, a negative association between DBTP and focal variables implies that BTP is positively associated with these outcomes.

Furthermore, the present study empirically examines the trait–behavior model introduced by Burzynska and Stolarski (2020), where BTP influences overall well-being via such well-being boosters as gratitude. To our knowledge, the current study is one of the first to analyze the mediating role of gratitude and SoPA in the association between BTP and flourishing. We try to extend flourishing research in the present study by incorporating BTP as a temporal flexibility and plasticity that fosters flourishing using the Construal Level Theory. Based on the extant literature and the above arguments, the study's conceptual model is presented in Figure 1.

Figure 1

Conceptual Framework of the Study



Note. Source: developed by the authors.

Method

Sample Characteristics and Data Collection Procedure

The study involved 521 respondents (66.6% men and 33.4% women) selected using a purposive, or subjective, sampling. This method allows researchers to intentionally select participants in accordance with the study objectives. The criteria for inclusion of respondents were age between 18 and 29 (average age 23.6) and proficiency

in English. An a priori sample size was also calculated to determine the minimum number of samples required to detect effects, which was 342 individuals. In terms of educational attainment, 58.2% of participants had a Bachelor's/Master's degree, 30.7% had a postgraduate degree (including Master's and PG diplomas), and 11.1% had a PhD degree. Both online and offline methods were used for data collection. Of the participants, 66.8% had no previous work experience, while 33.2% were employed. Regarding their living conditions, 48.6% of the participants resided in urban settings, 25.9% in semi-urban settings, and 25.5% in rural settings. The participants were thoroughly informed about the objectives and design of the study. After the participants gave their informed consent, the online participants got a link to a Google[1] form with questions about demographic data and study variables. The offline participants got a printed copy of the booklet with the questionnaire. Any questions the participants had were answered, and they got the proper instructions.

Measures

Study variables were measured using the following measures for data collection:

Zimbardo Time Perspective Inventory–Short, or ZTPI–Short (Košťál et al., 2016). TP was assessed using a short version of ZTPI (Zimbardo & Boyd, 1999). The scale consists of 18 items rated on a five-point Likert scale ranging from 1 = *Very untrue* to 5 = *Very true*. The scale has six underlying factors: Past Positive (PP), Past Negative (PN), Present Fatalist (PF), Present Hedonist (PH), Future Positive (FP), and Future Negative (FN). The scale showed adequate psychometric properties and easy administration (Košťál et al., 2016). In the present study, the McDonald's omega (ω) for PP, PN, PF, PH, FP, and FN were .72, .78, .72, .76, .75, and .78, respectively.

BTP was measured using DBTP coefficients based on the recommendations of Stolarski et al. (2011) and Zhang et al. (2014). This coefficient measures the degree of deviation of an individual from BTP. DBTP is calculated by subtracting the mean score of individuals from the optimal mean square of TP factors and then squaring it to obtain the DBTP score according to the quadratic Euclidean distance metric. The higher the DBTP score, the more unbalanced the time perspectives will be. The DBTP formula is as follows:

$$\mathrm{DBTP} = \sqrt{(\mathrm{oPP} - \mathrm{ePP})^2 + (\mathrm{oPN} - \mathrm{ePN})^2 + (\mathrm{oPH} - \mathrm{ePH})^2 + (\mathrm{oPF} - \mathrm{ePF})^2 + (\mathrm{oF} - \mathrm{ePF})^2},$$

where "o" represents the optimal mean scores of TP factors and "e" stands for the empirical mean scores of each TP factor. The optimal scores of each TP factor were taken from the recommendation of Zimbardo and Boyd (2008) and Jankowski et al. (2020). Zimbardo and Boyd's (2008) optimal TP mean scores were high scores on PP (4.60), moderately high scores on PH (3.90) and FP (4.0), and low scores on PN (1.95) and PF (1.50). Jankowski et al. (2020) revised the optimal TP factors for maximizing well-being as high scores on PP (5.0), FP (5.0), moderately high scores on PH (3.4), and low scores on PN (1.0), PF (1), and FN (1.0). Jankowski et al. (2020) recommended that future studies examine the cultural specificity and generality of their optimal TP scores for different population groups to test which of them is a better predictor of

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well-being: the optimal TP scores recommended by Zimbardo and Boyd (2008) or Jankowski et al. (2020). In the current study, DBTPS denotes deviation from the balance time perspective score as per the recommendation of Zimbardo and Boyd (2008), and DBTPR denotes deviation from the balance time perspective score as per the recommendation of Jankowski et al. (2020). Both DBTPS and DBTPR were assessed using the ZTPI–Short. Higher DBTPS and DBTPR scores indicate greater deviation from an optimal balance from a time perspective. Given that both DBTPS and DBTPR are measure of imbalance, their negative associations with focal variables should be interpreted as evidence that BTP is positively associated with these variables.

The Gratitude Questionnaire: Six Item Form, GQ-6 (McCullough et al., 2002). The GQ-6 was used to measure gratitude among the participants. It is a six-item scale rated on a seven-point Likert scale ranging from 1 = *Strongly disagree* to 7 = *Strongly agree*. A higher score indicates a high propensity for grateful feelings. Item 6 was removed from the analysis due to poor factor loadings. The McDonald's omega ω for the current scale after removing item 6 was .80, indicating acceptable reliability.

The Sense of Agency Scale (Tapal et al., 2017). The sense of positive agency was measured using the sense of agency scale. The scale consists of two dimensions: sense of positive agency (SoPA) and sense of negative agency (SoNA). Only SoPA items were used in the current study. SoPA consists of five items rated on a seven-point Likert scale ranging from 1 = *Strongly disagree* to 7 = *Strongly agree*. In the present study, the McDonald's omega ω for SoPA dimensions was .83, indicating acceptable reliability.

Flourishing Scale, or FS (Diener et al., 2010). Flourishing scale was used to measure the self-perceived extent of flourishing among the participants. The scale consists of eight items rated on a seven-point Likert scale from 1 = *Strongly disagree* to 7 = *Strongly agree*. High scores indicate high levels of success in various domains of life. In the present study, the McDonald's omega ω for FS was .87, indicating acceptable reliability.

Result

The Jamovi software (Version 2.3.26) was used to perform all statistical analyses, including the (a) descriptive analysis of demographic characteristics such as mean and standard deviation; (b) computation of McDonald's omega ω for reliability coefficients; (c) confirmatory factor analysis was performed for measurement model validation; (d) GLM mediation model using maximum likelihood regression with 5,000 bootstrap estimates were used to examining the structural model.

Common Method Bias

Harman's single-factor test was performed to examine common method variance in the study (Podsakoff et al., 2003). Exploratory factor analysis with a Principal axis factoring method, including an unrotated factor solution, was performed to assess the variance explained by a single factor. The obtained one factor explained 21.4% of the variance well below the cutoff value of 50%, indicating common method bias was not a problem for the study (Podsakoff et al., 2003). The common latent factor method

was also used to estimate the common method bias. The confirmatory analysis of the common one-factor model showed a poor model fit (χ^2/df = 5.86, confirmatory fit index (CFI) = 0.54, Tucker–Lewis index (TLI) = 0.52, standardized root mean square residual (SRMR) = 0.10, and root mean square error of approximation (RMSEA) = 0.097 indicating common method bias was not an issue for the study.

Descriptive Statistics and Intercorrelation Among Variables

The mean and standard deviation of all the study variables is mentioned in Table 1. All the correlations were on the expected line except those between DBTPS and Present Hedonistic, which were statistically insignificant, paving the way for further higher-order analysis.

Table 1

Mean, Standard Deviation, and Intercorrelations Among Variable

Variable	Mean	*SD*	1	2	3	4	5	6	7	8	9	10	11
PP	3.77	0.71											
PN	3.47	0.84	–0.22**										
PF	2.75	0.83	–0.12**	0.23***									
PH	3.66	0.68	0.38***	–0.30***	–0.12**								
FN	2.85	0.86	–0.15**	0.48***	0.47***	–0.14**							
FP	3.57	0.76	0.27***	–0.10*	–0.11*	0.25***	–0.23***						
DBTPS	2.96	0.93	–0.25***	0.53***	–0.57***	0.003	0.69***	–0.31***					
DBTPR	4.34	1.02	–0.21***	0.64***	–0.57***	0.19**	0.77***	–0.42**	0.96***				
GRAT	5.70	0.96	0.31***	–0.14**	–0.30***	0.20***	–0.39***	0.31***	–0.38***	–0.41***			
SOPA	5.13	1.11	0.22***	–0.15**	–0.09*	0.22***	–0.20***	0.37***	–0.22***	–0.26***	0.37***		
FLU	5.54	0.92	0.32***	–0.13**	–0.12**	0.25***	–0.40***	0.55***	–0.37***	–0.43***	0.56***	0.51***	

Note. N = 521, GRAT = Gratitude; SOPA = Sense of Positive Agency; FLU = Flourishing; *p < .05, ** p < .01, *** p < .001

Comparison of DBTPS and DBTPR as a Better Predictor of Flourishing

In order to define a better flourishing predictor, DBTPS and DBTPR variables were compared. Both DBTPS (t = –8.98, p < .001) and DBTPR (t = –10.9, p < .001) were significant predictors of flourishing. The R^2 value for DBTPR was greater than DBTPS, indicating that DBTPR was a better predictor of flourishing. Based on the result, all the higher-order analyses were performed using DBTPR (Table 2). The findings indicate that DBTP, based on Jankowski et al.'s (2020) optimal TP mean scores (DBTPR), is a stronger predictor of flourishing than Zimbardo and Boyd's (2008) model (DBTPS).

Table 2
Comparative Analysis

Predictor	*β*-value	*SE*	R^2	*t*-value	*p*	95% Confidence Interval	
						Lower Limit	Upper Limit
DBTPR	–.43	0.03	0.18	–10.9	< .001	–.46	–.32
DBTPS	–.38	0.04	0.13	–8.98	< .001	–.44	–.28

Note. Model Coefficients – Flourishing; *SE* = Standard Error.

Measurement Model

Multiple CFAs were conducted to assess the scale's construct validity and fit indices in the current context.

Confirmatory Factor Analysis of the Constructs

DBTPR was operationalized as a single-item composite index derived via Euclidean distance, making CFA analysis inapplicable. The individual CFA was done to examine the model fit of gratitude, SoPA, and flourishing scales. Items with low factor loadings (below 0.40) (Hair et al., 2019) and large modification indices were removed to attain an acceptable model fit. After deleting item 6 of the gratitude scale, a desirable model fit for the gratitude scale was achieved (Table 3).

Table 3
Goodness-of-Fit Indices of Study Variables

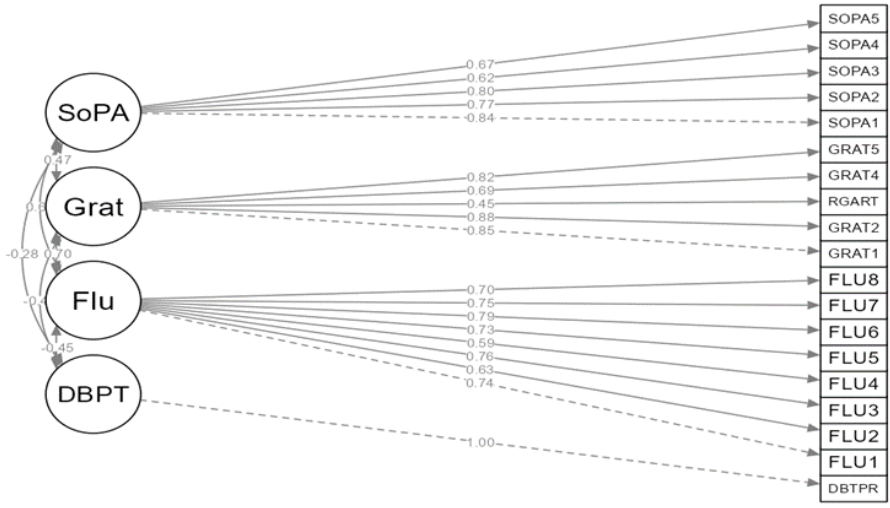
Construct	Model	χ^2	χ^2/df	*p*	NFI	TLI	CFI	SRMR	RMSEA	Item Deleted	Reason for Deletion
Gratitude	CFA1	103	11.44	0.01	0.88	0.82	0.89	0.09	0.14		
	CFA2	13.9	2.78	0.16	0.98	0.97	0.98	0.02	0.05	GRAT6	LFL and LMI
SoPA	CFA1	16.4	3.28	0.06	0.98	0.97	0.98	0.02	0.06		
Flourishing	CFA1	81.3	4.06	0.01	0.94	0.94	0.96	0.03	0.07		

Note. LFL = low factor loading; LMI = large modification index; NFI = normed fit index.

Overall Measurement Model. After examining the model fit of individual constructs, the CFA of the full measurement model comprising DBTPR, gratitude, SoPA, and flourishing was assessed. DBPTR, a single-item measure, was also included in the overall measurement model as single indicator variables can also increase the testability of the final model. The model showed acceptable model fit with $\chi^2 = 519$, $\chi^2/df = 3.53$, CFI = 0.99, TLI = 0.98, NFI = 0.98, SRMR = 0.059, RMSEA = 0.061 indicating that data fits the model well. Figure 2 depicts the overall measurement model.

Figure 2

Measurement Model



Note. SoPA= Sense of Positive Agency, GRAT = Gratitude, FLU = Flourishing. Source: developed by the authors.

Construct Validity

The measurement model comprised DBTPR, gratitude, SoPA, and flourishing. Since DBTPR consisted of a single-item composite index, there were no validity concerns for this construct. The construct validity of the remaining constructs was assessed using convergent and discriminant validity (Hair et al., 2019). For all the constructs, the average value extracted (AVE) and composite reliability (CR) values were greater than 0.50 and 0.70, indicating convergent validity was established. Heterotrait–Monotrait (HTMT) ratio was used to establish discriminant validity. The HTMT values were below 0.85, confirming the discriminant validity (Table 4).

Table 4

Construct Validity

Construct	CR	AVE	1	2	3
1. Gratitude	0.87	0.57			
2. Sense of Positive Agency	0.86	0.55	0.46		
3. Flourishing	0.89	0.51	0.70	0.62	

Structural Model

In the first model, DBTPR acted as an independent variable and flourishing as a dependent variable. The model showed good fit indices with $\chi^2 = 60.7$, $\chi^2/df = 3.03$, CFI = 0.99, TLI = 0.99, NFI = 0.96, SRMR = 0.042, RMSEA = 0.063.

In the second model, gratitude and SoPA were added as parallel mediators in the relationship between DBTPR and flourishing. The model also showed acceptable fit indices ($\chi^2 = 515$, $\chi^2/df = 3.50$, CFI = 0.91, TLI = 0.90, SRMR = 0.047, RMSEA = 0.059).

The result of path analysis suggested that DBTPR negatively predicted flourishing ($\beta = -.19$, $p < .001$), leading to acceptance of H1. Furthermore, DBTPR negatively predicted gratitude ($\beta = -.41$, $p < .001$) and SoPA ($\beta = -.26$, $p < .001$). Both gratitude ($\beta = .36$, $p < .001$) and SoPA ($\beta = .34$, $p < .001$) positively predicted flourishing (Table 5).

Mediating Effect of Gratitude and SoPA

Gratitude and SoPA acted as a parallel partial mediator in the relationship between DBPTR and flourishing as DBPTR predicted flourishing both directly ($\beta = -0.19$, $p < .001$) and indirectly via gratitude ($\beta = -0.15$, $p < .001$) and SoPA ($\beta = -0.09$, $p < .001$). Based on the result, **H2** and **H3** were accepted (Table 5).

Table 5

Direct and Indirect Effects

Type	Effect	Estimate	*SE*	95% C.I. (a)		*β*	*z*
				Lower	*Upper*		
Component	DBTPR ⇒ Gratitude	−0.39	0.04	−0.46	−0.32	−0.41	−10.34
	DBTPR ⇒ SOPA	−0.28	0.05	−0.37	−0.19	−0.26	−6.17
	Gratitude ⇒ Flourishing	0.35	0.04	0.28	0.42	0.36	9.99
	SOPA ⇒ Flourishing	0.29	0.03	0.23	0.34	0.34	10.01
Direct	DBTPR ⇒ Flourishing	−0.18	0.03	−0.24	−0.11	−0.19	−5.39
Indirect	DBTPR ⇒ Gratitude ⇒ Flourishing	−0.14	0.02	−0.17	−0.10	−0.15	−7.18
	DBTPR ⇒ SOPA ⇒ Flourishing	−0.08	0.02	−0.11	−0.05	−0.09	−5.25
Total	DBTPR ⇒ Flourishing	−0.39	0.04	−0.46	−0.32	−0.43	−10.93

Note. $N = 521$; SOPA = Sense of Positive Agency; $p < .001$.

While the overall SEM model indicated that DBTP significantly predicted flourishing both directly and indirectly via Gratitude and SoPA, further analysis was conducted to examine potential differences across gender, work experience (having work experience vs. no work experience), and location groups. A Multi-Group SEM (MGA) analysis was performed, and the results indicated no significant variations in path coefficients across gender ($\Delta\chi^2 = 8.59$, $p = .13$), work experience ($\Delta\chi^2 = 3.13$, $p = .40$), and location ($\Delta\chi^2 = 4.41$, $p = .19$) suggesting that the overall model is invariant

across gender, work experience, and location, indicating that factor loadings and structural paths do not significantly differ between groups (Table 6).

Table 6

Multi-Group Invariance Testing Across Residence, Gender, and Work Experience

Model Comparison	Configural $\chi 2(df)$	Metric $\chi 2(df)$	Scalar $\chi 2(df)$	Structural $\chi 2(df)$	CFI	TLI	RMSEA	$\Delta\chi 2$ (Δdf)	*p*
Gender (Male/ Female)	39.86(2)	40.95 (3)	44.95(5)	53.54(10)	0.92	0.93	0.05	8.59 (5)	.13
Work Experience (Yes/No)	33.57 (2)	34.49 (5)	36.12 (7)	39.60 (10)	0.93	0.96	0.06	3.13 (5)	.40
Location (Urban/Semi-Urban/Rural)	36.69 (7)	42.50 (12)	44.51 (15)	48.92 (18)	0.93	0.94	0.07	4.41 (3)	.19

Note. CFI = Comparative Fit Index, TLI = Tucker–Lewis Index, RMSEA = Root Mean Square Error of Approximation, $\Delta\chi^2$ = Chi-square difference test. Configural invariance tests whether the model structure holds across groups, metric invariance tests whether factor loadings are equivalent across groups, scalar invariance tests whether item intercepts are equivalent, and structural invariance tests whether regression paths are equivalent.

Discussion

The study examines whether the presence of BTP leads to flourishing, and whether gratitude and SoPA can act as a possible mediating mechanism explaining the aforementioned relationships. As the results show, DBTP negatively predicted flourishing, and since DBTP is the inverse of BTP, the findings confirm that BTP was a positive predictor of flourishing, thus supporting **H1**. This conclusion is consistent with previous studies, such as Diaconu-Gherasim et al. (2021) and Webster et al. (2021), where BTP, which involves being flexible and adaptable, was positively linked to well-being. BTP is the strongest predictor of overall well-being (Stolarski et al., 2018). BTP facilitates individuals' positive progression into the future, grounding them in their present experiences and allowing them to reconcile with their past, which increases an individual propensity to be in a flourishing state (Ballabrera & Pérez-Burriel, 2022; Drake et al., 2008). Similarly, Zhang et al. (2014) reported that maintaining a healthy balance of TP and optimizing its use based on the situations and reward structure creates a virtuous cycle of elevated well-being outcomes.

The association between BTP and flourishing can be explained using CLT theory (Trope & Liberman, 2010). An individual achieves flourishing by balancing high-level construal (related to past and future considerations) and low-level construal (focused on the present moment). High-level construal aids in goal attainment, while low-level construal enhances the ability to enjoy and benefit from current situations through present-mindedness (Alfalah & Alganem, 2020).

The study additionally demonstrated that gratitude acted as a partial mediator for the relationship between BTP and flourishing, which supports **H2**. Individuals with a BTP exhibit a sense of acceptance and satisfaction with their past experiences,

fostering gratitude toward people, places, and events. This heightened sense of gratitude, in turn, promotes greater flourishing (Szczęśniak & Timoszyk-Tomczak, 2018; Zhang et al., 2014). The mediating role of gratitude in the relationship between BTP and flourishing provides empirical support for Cunningham's dual-pathway framework, which posits that TPs influence well-being indicators both directly and indirectly. Additionally, these findings align with Burzynska and Stolarski's (2020) Trait–Behavior Model, suggesting that TPs contribute to well-being through well-being boosters such as gratitude. A BTP is characterized by a high score on Past Positive and a low score on Past Negative. BTP helps in the cultivation of gratitude by encouraging individuals to focus on positive past experiences while minimizing negative recollections. This grateful orientation enhances the ability to recognize and appreciate life's blessings and an expansion of the thought–action repertoire, which in turn leads to elevated flourishing (Stolarski et al., 2018; Valdez & Datu, 2021). SoPA mediated the path from BTP to flourishing, leading to the acceptance of **H3**. SoPA indicates a belief that one is in control of one's life and an efficacious belief regarding the ability to alter life situations to attain desired outcomes and goals (Trope & Liberman, 2010). Maintaining temporal harmony between the past, present, and future allows individuals to exert better control over their mind, body, and environment as they are liberated from temporal biases (Stolarski & Mathews, 2016). Individuals with BTP have a sense of mastery and competence in handling environmental needs and demands. According to Social Cognitive theory (Bandura, 2001), an individual's belief in their ability to control their environment and confidence in achieving the desired goals plays a significant role in their overall well-being. BTP fosters the development of agency beliefs by harmoniously integrating different time zones, where an individual learns from past experiences, sets realistic goals for the future, and proactively works to achieve present goals (Germano & Brenlla, 2021). Individuals with BTP are identified by agency and efficacy beliefs, leading to elevated flourishing (Zimbardo & Boyd, 2008).

A multi-group analysis was performed to determine whether the relationship between the study variables differed by gender, location, and work experience. The results indicated no significant difference in structural paths across the different groups, suggesting that the model is invariant with respect to gender, location, and work experience. These findings indicate that the relationship between BTP and flourishing reflects universal psychological mechanisms that transcend key sociodemographic factors as temporal harmony addresses universal human needs for environmental mastery (Zimbardo & Boyd, 2008).

The importance of BTP for fostering various components of well-being is solidly established, though its specific link to prosperity continues to be unexplored. This study is among the first to examine the relationship between BTP and flourishing, while also identifying gratitude and SoPA as key psychological pathways underlying this association. Together, gratitude and SoPA provide different explanations of how BTP leads to flourishing: gratitude roots individuals in appreciation, while SoPA instills a sense of control over one's life, collectively fostering flourishing through adaptive temporal cognition.

Implications

The present study offers several implications for researchers. Theoretically, drawing on the Construal Level Theory, the study demonstrates that having adaptive temporal flexibility leads to a flourishing state. The current study empirically verifies Cunningham's dual pathway framework, which postulates that TPs influence well-being outcomes (flourishing) directly and indirectly (via the mediating mechanism of gratitude and SoPA). This study bridges a critical gap in understanding the psychological mechanisms linking BTP to flourishing. By establishing gratitude and SoPA as parallel mediators, the current study illuminates distinct psychological pathways through which BTP enhances flourishing. These findings advance foundational knowledge for future research on how temporal self-regulation fosters flourishing.

This study provides novel insights into fostering flourishing by cultivating a BTP characterized by adaptive integration of temporal frame and by mitigating maladaptive temporal biases (Stolarski et al., 2015; Zimbardo & Boyd, 2008). Clinicians and educators should prioritize interventions that nurture gratitude and agentic self-beliefs, mechanisms empirically validated here as critical pathways linking BTP to flourishing. For instance, time perspective therapy (Sword et al., 2015) and structured practices like gratitude journaling (Burzynska & Stolarski, 2020) or future-oriented goal-setting (Przepiorka & Sobol-Kwapinska, 2021) equip youth to harmonize temporal cognition, positioning them as proactive navigators of their life trajectories rather than passive observers of time. A balanced TP has great promise for clinical and vocational psychology interventions. In clinical contexts, BTP-aligned interventions, such as reframing past adversities into narratives of learning experiences, can alleviate recurrent depression by countering maladaptive temporal biases, particularly pervasive negative past orientations. For instance, guiding individuals to reinterpret distressing memories as formative learning experiences fosters reconciliation with their past, a process critical for the attainment of a flourishing state (Sword et al., 2015). Interventions such as TP coaching are gaining traction in organizational psychology and life coaching domains (Boniwell & Zimbardo, 2015) for establishing adaptive temporal orientations and positive time use (Osin & Boniwell, 2024).

Limitations & Future Directions

Despite its contribution, the study has several limitations. First, the study used a cross-sectional research design, due to which necessary conditions for establishing causality were not established. Second, self-report measures were used to measure the study variables, which might have led to social-desirability bias.

The study opens up some new research avenues. Future studies should utilize different research designs, such as experimental methods, event sampling methods, or longitudinal designs, to verify the causal mechanism between BTP and flourishing. Different sets of populations should be used to increase the generalizability of the study findings. More mediators, such as savoring and prioritizing positivity (Burzynska & Stolarski, 2020), and moderators, such as age and culture variables, should be examined in future research.

Conclusion

Drawing on Construal Level Theory, this study examines how a BTP enhances flourishing through the dual mediating pathways of gratitude and SoPA. Results revealed that BTP significantly predicted flourishing, with both gratitude and SoPA operating as parallel mediators. Individuals characterized by adaptive temporal flexibility lead a life where they have made peace with their past, enjoy the present at its fullest, and strategically pursue future goals, demonstrating higher flourishing tendencies. BTP fosters gratitude through reflective appreciation toward life and cultivates an empowering agentic control over life trajectory, nurturing greater flourishing.

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