



## Brief Report

## Are optimists oriented uniquely toward the future? Investigating dispositional optimism from a temporally-expanded perspective

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## ABSTRACT

Dispositional optimism is typically conceptualized as a generalized tendency to expect positive personal future outcomes. The subjective future, however, does not exist in a temporal vacuum. Based on a temporally-expanded perspective, in three studies we evaluated the association between dispositional optimism and temporal orientation, operationalized as momentary and habitual temporal focus (past, present, future) and temporal life evaluations (recollected past, present, anticipated future). Dispositional optimism was not associated uniquely with momentary thoughts about the personal future, habitual focus on the personal future, or positive anticipated outcomes. Instead, dispositional optimism was linked with a generalized tendency to evaluate personal outcomes positively regardless of temporal perspective. The present work thus demonstrates the value of situating dispositional optimism within a temporally-expanded landscape.

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## 1. Introduction

Dispositional optimism is typically defined as a generalized expectancy of positive personal future life outcomes (Scheier & Carver, 1985). Whereas optimistic individuals expect good things to happen in their lives, non-optimistic (i.e., pessimistic) individuals anticipate bad things. The anticipated future thus plays a central role in the conceptualization of dispositional optimism. In the present work, we advance a temporally-extended perspective in which dispositional optimism is positioned as part of a more general tendency toward viewing one's life – past, present, and future – in a positive light. In three studies we assess dispositional optimism in relation to momentary and habitual temporal focus and temporal life evaluations, and evaluate whether dispositional optimism is related uniquely, or primarily, to the anticipated future.

An impressive body of evidence has linked dispositional optimism with more adaptive functioning across a variety of life outcomes. Indeed, although positive expectancies for the future are not the only path to successful life outcomes for all individuals or in all situations (Norem, 2008), copious research has demonstrated positive associations between dispositional optimism and psychological well-being, interpersonal functioning, physical

health, and socio-economic indicators (Carver, Scheier, & Segerstrom, 2010). According to the dominant conceptual model, dispositional optimism is linked with positive functioning because of effective self-regulation (Carver & Scheier, 1998; Scheier & Carver, 1992). Driven by their expectations of a positive future, dispositionally optimistic individuals are more likely than pessimists to use effective problem-focus coping and self-regulatory strategies in achieving their desired future outcomes (Aspinwall, Richter, & Hoffman, 2001; Soldberg Nes & Segerstrom, 2006).

Despite the explicit focus on the future in contemporary conceptualizations of dispositional optimism, the anticipated future does not exist in a temporal psychological vacuum (Peetz & Wilson, 2008). Rather, there is growing consilience among various lines of psychological inquiry demonstrating that how people view their anticipated future lives is connected in fundamental ways to how they view their past and present lives. Such interconnections have been observed with respect to subjective self-evaluations (McIntosh, 2001; Shmotkin, 1991), personal narratives and life stories (McAdams, 2006; Shmotkin, 2005), normative beliefs about human development (Fleeson & Heckhausen, 1997; Staudinger, Bluck, & Herzberg, 2003), cognitive processing (Atance & O'Neil, 2003; Buckner & Carroll, 2007), and neuroanatomical functioning (Schacter & Addis, 2007; Wheeler, Stuss, & Tulving, 1997). Consequently, thoughts and evaluations concerning the anticipated future are likely to be accompanied by, and related to, information concerning the subjective past and present.

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Accordingly, some studies have shown that dispositional optimism is associated with positive thoughts and neurocognitive processes related to past, present, and anticipated future life events and outcomes (Noguchi, Gohm, & Dalsky, 2006; Segerstrom, 2001; Sharot, Riccardi, Raio, & Phelps, 2007). These findings raise several fundamental questions concerning the near-exclusive focus on the future temporal perspective in contemporary theory and research on dispositional optimism. In particular, are dispositional optimists oriented uniquely, or primarily, toward the anticipated future? Or, consistent with the fundamental connections among temporal perspectives, could dispositional optimism be part of a more general tendency to view one's life positively across temporal perspectives?

Addressing these questions requires examining dispositional optimism in relation to all three temporal perspectives. Using this strategy, Busseri, Choma, and Sadava (2009) found that differences in global life evaluations between dispositionally optimistic and pessimistic individuals were largest with respect to assessments of present, rather than past or anticipated future, life satisfaction. Extending these findings, Busseri (2012) demonstrated that, across the lifespan, the link between dispositional optimism and positive life evaluations was strongest and most consistent with respect to evaluations of present, rather than recollected past or anticipated future, life outcomes. Such findings suggest that dispositional optimism may not be tied uniquely to positive future expectancies. Of the three temporal perspectives, furthermore, links with dispositional optimism may be strongest for evaluations of the present, not the anticipated future or recollected past.

Yet although dispositional optimism has been evaluated in relation to life evaluations across all three temporal perspectives, the relative salience of each temporal perspective among dispositional optimists is unknown. Further, associations between dispositional optimism and a possible general underlying tendency to evaluate one's life positively across temporal perspectives has yet to be directly tested. Therefore, at present it is unclear whether (a) dispositional optimists are oriented uniquely, or even primarily, toward positive anticipated personal future life outcomes, as is assumed in contemporary conceptualizations, or (b) dispositional optimism is linked with a more general positive orientation toward one's life regardless of temporal perspective, as would be predicted based on a temporally-expanded perspective.

Informing these issues will have important implications for the measurement and conceptualization of dispositional optimism. For example, to assess dispositional optimism, almost without exception researchers use the *Life Orientation Test* (LOT; Scheier & Carver, 1985) or the *Life Orientation Test-Revised* (LOT-R; Scheier, Carver, & Bridges, 1994); scores on which are highly correlated (i.e., exceeding .90; Scheier et al., 1994). Although the LOT-R was intended to assess unambiguously respondents' expectancies for personal future life outcomes (Scheier et al., 1994), this characteristic of the scale is seemingly based on the face validity of the scale items. Whether the LOT-R uniquely taps respondents' views of their anticipated futures, however, rather than their evaluations of their past and present life outcomes, has yet to be determined. Further, no research to date has directly examined whether dispositionally optimistic respondents are thinking uniquely (or even primarily) about anticipated positive future life outcomes when completing the LOT-R. These issues are particularly relevant to understanding the meaning of individuals' LOT-R scores.

Critically, given the fundamental connections among the subjective past, present, and future, focusing exclusively on a single temporal perspective such as the anticipated future requires not only that researchers 'rule in' the relevance and role of particular temporal perspectives, but also that they empirically 'rule out' the relevance and roles of other temporal perspectives. This latter strategy has yet to be undertaken in research on dispositional

optimism despite the conceptual and interpretive emphasis given to the anticipated future (vs. the past and present). Evaluating this issue would provide a direct test of whether dispositional optimism is tied uniquely to evaluations of anticipated future life outcomes independent of, or compared to, links between optimism and a more general tendency to view one's life positively.

To address these issues, in the present work we report three studies evaluating the association between dispositional optimism and temporal orientation. These three studies inform whether dispositional optimism is related uniquely, or primarily, to momentary or habitual thoughts about the anticipated personal future (vs. past or present), and/or the degree of positivity of momentary or global evaluations of the anticipated future (vs. past or present). Competing hypotheses were specified. Consistent with contemporary conceptualizations, dispositional optimists should be inclined toward thinking primarily about positive personal future (vs. past or present) life outcomes. Alternatively, according to the temporally-expanded perspective, dispositional optimists should be inclined toward thoughts about positive personal life outcomes regardless of temporal perspective, reflecting a more general tendency to evaluate one's life positively.

## 2. Study 1

In Study 1 we evaluated the association between dispositional optimism and individuals' momentary temporal orientation, operationalized in terms of temporal focus and temporal life evaluations when completing the LOT-R.

### 2.1. Method

#### 2.1.1. Participants and procedure

One hundred and fifty university undergraduates ( $M_{\text{age}} = 20.25$ ,  $SD = 3.55$ ; 51% female) voluntarily completed a two-page questionnaire.

#### 2.1.2. Measures

**2.1.2.1. Dispositional optimism.** The *Life Orientation Test-Revised* (LOT-R; Scheier et al., 1994) was completed. The LOT-R comprises 10 items, six of which relate to dispositional optimism; the additional four items are filler items and are not scored. Ratings (0 – *strongly disagree*, to 4 – *strongly agree*) were averaged ( $\alpha = .77$ ).

**2.1.2.2. Temporal focus and temporal life evaluations.** On a separate page, respondents were asked, "When completing the survey on the previous page, to what extent were you thinking about ...": "Good (bad) things that have happened in your life in the past", "Good (bad) things that are happening in your life at present", and "Good (bad) things that you expect to happen in your life in the future". Within temporal perspective, ratings (0 – *not at all*, to 4 – *extremely*) were summed to index momentary temporal focus and subtracted ('good' minus 'bad') to index momentary temporal evaluation.

### 2.2. Results and discussion

As shown in Table 1, temporal focus was moderately strong for all three temporal perspectives; the difference among means was non-significant,  $F(2,298) = 2.44$ ,  $p = .09$ . Dispositional optimism was not related significantly to temporal focus but was associated positively with all three temporal evaluation scores. Further, in a structural equation model, a latent dispositional optimism factor (indicated by two three-item parcels) was strongly correlated with a latent temporal evaluation factor (indicated by the three temporal evaluation scores):  $r = .81$ ,  $p < .001$ . This model provided

**Table 1**

Means, standard deviations, and correlations by study.

Measure	M	SD	1	2	3	4	5	6	7	8	pr
<i>Study 1</i>											
1. Dispositional optimism	2.41	0.64	–								–
2. Temporal focus – past	4.35	1.73	–.11	–							–.03
3. Temporal focus – present	4.05	1.53	–.07	.27*	–						.01
4. Temporal focus – future	4.11	1.53	–.12	.48*	.39*	–					–.03
5. Temporal evaluation – past	0.58	1.25	.45*	–.14	–.08	–.12	–				.17*
6. Temporal evaluation – present	0.81	1.60	.51*	–.05	–.13	–.09	.53*	–			.30*
7. Temporal evaluation – future	1.31	1.39	.44*	–.14	–.03	–.14	.45*	.44*	–		.22*
<i>Study 2</i>											
1. Dispositional optimism	2.40	0.74	–								–
2. Temporal focus – past	54%		.05	–							.06
3. Temporal focus – present	86%		–.17	–.08	–						–.11
4. Temporal focus – future	71%		.07	–.25*	–.13	–					–.10
5. Temporal distance of thoughts	0.28	2.34	.09	–.55*	–.21*	.65*	–				–.03
6. Temporal evaluation	1.01	1.61	.58*	–.11	–.15	.33*	.35*	–			.59*
<i>Study 3</i>											
1. Dispositional optimism	2.36	0.58	–								–
2. Favourability of thoughts	1.38	1.21	.18*	–							
3. Life satisfaction – past	4.35	1.48	.37*	.25*							
4. Life satisfaction – present	5.00	1.34	.28*	.27*	.42*						
5. Life satisfaction – future	5.25	0.95	.34*	.11	.24*	.35*	–				
6. Temporal focus – past	4.44	1.17	–.19*	–.07	–.13*	–.12	–.03	–			
7. Temporal focus – present	4.89	0.85	.27*	.14*	.17*	.39*	.27*	–.02	–		
8. Temporal focus – future	5.20	0.97	.10	–.01	–.07	.02	.23*	.18*	.32*	–	

Note.  $N_s = 150$  (Study 1), 102 (Study 2), and 237 (Study 3). In Study 1 and Study 2, values in the 'pr' column are partial correlations with the LOT-R scores, controlling for each of the other scores. For temporal focus measures in Study 2, entries in the *M* column indicate the percentage of respondents indicating thought content relevant to the temporal perspective.

\*  $p < .05$ .

excellent fit (model  $\chi^2(4) = 1.85$ ,  $p = .76$ ; CFI  $> .99$ ; SRMR = .01; RMSEA  $< .01$ ,  $p = .86$ ) and none of the individual temporal evaluation scores had a significant residual association with either of the dispositional optimism indicators. Thus, dispositional optimism was strongly tied to an underlying tendency to evaluate one's life positively across temporal perspectives, rather than to a specific momentary focus on, or evaluation of, the personal future.

### 3. Study 2

In Study 2 we further evaluated the association between dispositional optimism and momentary temporal orientation, operationalized in terms of spontaneously indicated (rather than prompted) responses concerning temporal focus, temporal distance of one's thoughts, and temporal evaluations.

#### 3.1. Method

##### 3.1.1. Participants and procedure

One hundred and two university undergraduates ( $M_{\text{age}} = 19.84$ ,  $SD = 2.07$ ; 55% female) voluntarily completed a three-page questionnaire.

##### 3.1.2. Measures

**3.1.2.1. Dispositional optimism.** Ratings on the LOT-R (Scheier et al., 1994) were averaged ( $\alpha = .84$ ).

**3.1.2.2. Thought reflection exercise.** Participants described up to "three different things about your life that you were thinking of" while completing the LOT-R in three blank thought boxes. Participants then indicated the temporal orientation of each thought box (past, current, future). Dichotomous temporal focus scores were computed for each temporal perspective. Participants rated *when* the experience in each of the three text boxes occurred (ratings ranged from  $-6$ , *a couple of years or more before now*, to  $0$ , *right*

*now*, to  $+6$ , *a couple of years or more after now*). An average temporal distance score was computed across thought boxes. Participants rated the content of each thought box, ranging from  $++$  – *very positive*, to  $---$  – *very negative*. An average temporal evaluation score was computed across thought boxes.

#### 3.2. Results and discussion

Present temporal focus was significantly more common than past or future perspectives ( $ps < .05$  in McNemar tests); see Table 1. LOT-R scores were not significantly correlated with temporal focus or distance scores, but were related positively to temporal evaluation scores. Results were similar when the interaction between temporal distance and temporal evaluation was included as an additional predictor, in order to determine whether positive evaluations of respondents' thoughts were more strongly tied to dispositional optimism when the thought content was related to the more distant future (vs. past): The interaction effect was not significantly associated with LOT-R scores ( $pr = .04$ ,  $p > .05$ ), whereas the partial correlation between LOT-R and the temporal evaluation score remained significant ( $pr = .57$ ,  $p < .05$ ). Thus, even when based on spontaneous thought reports, dispositional optimism was tied to positive thoughts concerning one's life, overall, rather than to a specific momentary temporal focus on the future.

### 4. Study 3

In Study 3 we evaluated the impact of experimentally manipulating participants' temporal orientation (past, present, future) on favourability of thoughts, global life evaluations, and habitual temporal focus. Dispositional optimism was examined as a moderating factor. Of particular interest was whether effects of temporal focus were unique to, or strongest among, dispositionally optimistic individuals when focusing on the anticipated future.

## 4.1. Method

### 4.1.1. Participants and procedure

Undergraduates ( $N = 237$ ;  $M_{\text{age}} = 19.26$  years,  $SD = 2.83$ ; 90% female) were randomly assigned to one of three temporal focus conditions (past, present, future). After completing a measure of dispositional optimism, participants were asked to describe what was happening (or happened, or will happen) in their life either 3 years ago, at present, or 3 years in the future. Ten open-ended boxes were provided on a single page for participants to record their thoughts.

### 4.1.2. Measures

**4.1.2.1. Dispositional optimism.** Ratings on the LOT-R (Scheier et al., 1994) were averaged ( $\alpha = .74$ ).

**4.1.2.2. Favourability of thoughts.** Ratings of the favourability of the information in each thought box ( $-3$  – not favourable at all, to  $3$  – very favourable) were averaged.

**4.1.2.3. Global temporal life evaluations.** Participants evaluated their past, present and future lives using the *Temporal Satisfaction With Life Scale* (Pavot, Diener, & Suh, 1998). Ratings ( $1$  – strongly disagree, to  $7$  – strongly agree) were averaged within temporal perspective (three items each;  $\alpha$ s = .86, .89, and .85).

**4.1.2.4. Habitual temporal focus.** The *Temporal Focus Scale* (TFS; Shipp, Edwards, & Lambert, 2009) was used to measure participants' habitual focusing on their past, present, and future lives. Ratings ( $1$  – never, to  $7$  – constantly) were averaged within temporal perspective (four items each;  $\alpha$ s = .82, .68, and .74).

## 4.2. Results and discussion

See Table 1 for descriptives and correlations. Favourability of thoughts, global life evaluations, and habitual temporal focus were each regressed onto the same set of five predictors: Two dummy codes contrasting, respectively, present vs. future and present vs. past focus conditions (each coded 0 and 1); mean-centred LOT-R scores; and two interaction effects (dummy codes by LOT-R scores). As shown in Table 2, thought favourability scores were significantly more positive in the future (vs. present) focus condition. LOT-R scores did not significantly predict favourability of thoughts. Ratings of current life satisfaction were significantly higher in the future (vs. present) focus condition. LOT-R scores were associated with higher past, present, and future life satisfaction scores. None of the predictors were individually significant in predicting habitual focus on the past and future. However, habitual focus on the present was higher among individuals with higher LOT-R scores.

LOT-R scores did not interact with experimental condition dummy codes in any of the regression models.

Thus, following the experimental manipulation of temporal focus, positive associations between dispositional optimism and favourability of respondents' thoughts about their lives and their global temporal life evaluations were not specific to the future condition, but instead generalized across conditions. Further, dispositional optimism was not associated with habitual temporal focus on the future, but instead was associated with greater habitual focus on the present.

## 5. General discussion

Although dispositional optimism is typically conceptualized in terms of positive expectancies concerning personal future life outcomes (Carver et al., 2010), in the present work dispositional optimism is not tied exclusively or even primarily to a positive view of one's future. Rather, results from all three studies indicate that dispositional optimism is connected to a general tendency to evaluate one's life positively, regardless of temporal perspective. Our perspective places the construct of dispositional optimism within a broader temporal landscape encompassing perceptions of personal past life outcomes, evaluations of current life outcomes, and expectations concerning what one's life will be like in the future (Busseri, 2012; Busseri et al., 2009). Although some previous commentary on optimism is consonant with the proposed temporally-expanded perspective (e.g., Peterson, 2000; Scheier & Carver, 1985), our primary point of divergence is that the link between dispositional optimism and all three temporal perspectives may be much more fundamental than has been widely recognized – which has fundamental implications for research and theory concerning dispositional optimism.

With respect to measuring dispositional optimism, although the LOT-R was intended to assess respondents' expectancies for their personal future life outcomes unambiguously (Scheier et al., 1994), present findings reveal that respondents have more in mind when completing the LOT-R. Indeed, scores on this scale are strongly associated with a general underlying positivity with which individuals evaluate their lives, past, present, and future. Further, there is no unique link between LOT-R scores and either a tendency to focus on the future or positive expectancies for future life outcomes. Given the strong correlation between LOT-R and LOT scores, present findings may have implications for research based on either scale, which together represent the vast majority of research on dispositional optimism (Carver et al., 2010).

With respect to conceptualizing dispositional optimism, the present findings can be accommodated within a temporally-expanded perspective in which dispositional optimism is connected

**Table 2**  
Regression model results from Study 3.

Criteria	Predictors									
	Present vs. future focus condition		Present vs. past focus condition		Dispositional optimism		DO $\times$ PvsPF		DO $\times$ PvsFF	
	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$
Favourability of thoughts	1.24*	.48	–0.09	–.03	0.31	.15	0.11	.03	–0.15	–.04
Life satisfaction – past	0.20	.06	–0.17	–.05	0.56*	.22	0.64	.14	0.38	.09
Life satisfaction – present	0.67*	.24	0.26	.09	0.52*	.23	0.41	.10	–0.12	–.03
Life satisfaction – future	0.09	.05	–0.03	–.02	0.57*	.35	0.07	.02	–0.09	–.03
Temporal focus – past	–0.11	–.04	0.25	.10	–0.30	–.15	0.15	.04	–0.23	–.07
Temporal focus – present	–0.03	–.02	–0.04	–.02	0.36*	.24	0.13	.05	–0.02	–.01
Temporal focus – future	–0.14	–.07	–0.07	–.03	0.29	.17	–0.14	–.05	–0.24	–.08

Note.  $N = 237$ . Unstandardized (*b*) and standardized ( $\beta$ ) regression coefficients for each predictor (column variable) are shown by criterion (row variable).

DO = dispositional optimism. PvsFF = past vs. future focus condition dummy code (0/1). PvsPF = past vs. past focus condition dummy code (0/1).

\*  $p < .05$ .



in fundamental ways to the subjective past, present, and future. In contrast, it is less clear how present findings could be incorporated within the standard conceptualization of dispositional optimism in which it is defined exclusively with respect to the anticipated future. Although there have been few empirical attempts beyond the present work to not only rule in the anticipated future, but also to rule out the relevance or role of the other temporal perspectives, our findings suggest that doing so may be critical.

For example, empirical associations involving dispositional optimism are typically interpreted as indicative of, or resulting from, the motivational and self-regulatory effect of the anticipated future (Carver et al., 2010). However, it is possible that positive evaluations of one's life across temporal perspectives (rather than positive expectancies for the future) may be the underlying ingredient contributing to the beneficial 'effects' of dispositional optimism. Yet the present results do not establish, nor do we wish to suggest, that the anticipated future is unimportant to the characterization of dispositional optimism. Research may yet reveal a unique role of the anticipated future in underlying the links between dispositional optimism other constructs of interest (e.g., coping, self-regulation). Nonetheless, our findings provide reason to be cautious about interpretations concerning the unique functional role of the anticipated future with respect to associations involving dispositional optimism. Further research is needed to evaluate this issue directly.

More broadly still, other research suggests that dispositional optimism results from a pervasive cognitive bias toward the positive features of life (Cummins & Nistico, 2002), including a general tendency to view one's self, one's life, and one's future positively, as reflected in the substantial common variance among ratings of self-esteem, life satisfaction, and dispositional optimism (Caprara, Steca, Alessandri, Abela, & McWhinnie, 2010). Extending these perspectives, our findings reveal that such an underlying positive orientation may apply not only across various 'self-related' constructs, but also across all three subjective temporal perspectives.

With respect to limitations of the present work, assessment of temporal focus and temporal life evaluations in Study 1 and Study 2 was based on a small number of items per temporal perspective, potentially limiting the reliability of these assessments. Assessment of additional aspects of temporal orientation (e.g., Zimbardo & Boyd, 1999) may yield other valuable insights. Rather than prompted or open-ended thought reports, asking respondents to use a 'thinking aloud' approach when completing the LOT-R may provide a more ecologically valid indication of momentary temporal focus. Whereas data were collected in all three studies over a short duration of time, intensive time-sampling methodologies would inform the dynamic links between dispositional optimism and temporal orientation. The correlational designs employed in Study 1 and Study 2 precluded testing of directional effects or causality. The manipulation of temporal orientation in Study 3 did not address the causal role of dispositional optimism; direct manipulation of the positivity of beliefs or evaluations concerning their past, present, and future lives may provide additional important insights.

Further, whereas the first two studies comprised an even mix of male and female participants, in the Study 3 the vast majority were female, potentially limiting the generalizability of these findings. Present findings are also limited to samples of university undergraduates. Further, whether lifestage moderates the salience of any particular temporal perspective (Busseri, 2012; Shmotkin, 1991) needs to be determined before drawing more general conclusions concerning the link between dispositional optimism and an underlying tendency to evaluate one's life positively. Finally, our studies did not address connections between dispositional optimism and other relevant personality-related concepts such as

extraversion and neuroticism, positive and negative affect, and personal narratives.

In conclusion, situating dispositional optimism within a temporally-expanded landscape provides important new insights. Most striking is our consistent finding that dispositional optimism is not uniquely, or even primarily, linked with the anticipated future. Rather, dispositional optimism is robustly associated with a general tendency toward positive evaluations of one's life, regardless of temporal perspective. These findings raise fundamental questions concerning the conceptualization and measurement of dispositional optimism, and highlight new avenues for research and theory development.

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## Appendix A. Supplementary material

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.jrp.2013.04.015>.

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