Temporal, Perspectives, Dispositional Styles, and Subjective Well-Being

Mary Naeger
Western Kentucky University

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TEMPORAL PERSPECTIVES, DISPOSITIONAL STYLES, AND SUBJECTIVE WELL-BEING

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Mary L. Naeger

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Abstract

This study investigated the relationship between time perspective (TP) and the personality dispositions of optimism, pessimism, and realism with regard to their proposed influence on three measures that collectively assessed subjective well-being (SWB). The Depression-Happiness Scale (McGreal & Joseph, 1993) assessed happiness or the presence of positive affect and the absence of negative affect, the cognitive-affective components of SWB. The Satisfaction with Life Scale (SWLS) (Diener, Emmons, Larsen, & Griffin, 1985) provided the measurement of subjective life satisfaction, the essential final cognitive-judgmental component of SWB. The Life Orientation Scale-Revised (LOT-R) (Scheier, Carver, and Bridges, 1994) and a Reality Scale, composed by the author, assessed the dispositional styles. The Zimbardo Time Perspective Inventory (ZPTI) (Zimbardo & Boyd, 1999) assessed TP. Five temporal perspectives were found. Results indicated that the TPs emerged as strong and unique predictors of SWB in regression analysis. An optimal temporal profile was found that consisted of a combination of Present-Hedonistic, Future, and Past-Positive TP characteristics.
Chapter 1

Introduction

Philosophers have considered temporality to be a fundamental aspect of human existence and “a medium of or context for human existence” (Yonge, 1973, p. 475). Time perspective has emerged as one fundamental dimension of psychological time which is studied by research psychologists who have recognized that an implicit awareness of time is intrinsic to any lived experience. Often an unconscious process, all human experiences and life events have been assigned to personal temporal perspectives, which assist in giving order, meaning, and coherence to those events. Zimbardo and Boyd (1999) have proposed that individualized temporal frames have inherent cognitive, motivational, affective, and social components, which provide individuals with structural foundations and organizational frameworks for viewing oneself and the world. Subsequently, time perspective has been purported as being capable of governing and guiding an individual’s functioning enabling one to comprehend, interpret, and integrate events and experiences.

In general terms, time perspective has been conceived as the overall span of cognitive involvement extending from the distant past through the distant future consisting predominantly of three cognitive temporal zones: past, present, and future (Holman & Silver, 1998). Karniol and Ross (1996) have proposed that the past, present, and future are social cognitive constructions and therefore “all of these temporal frames are idiosyncratically or culturally held, more or less stable, and more or less realistic” (p. 594). First, the past has been based on
individualized social cognitive reconstructions and recollections of experiences and life events that may or may not be accurate. Second, the present has been assumed to be the concrete and empirical here-and-now that is uniquely perceived and experienced by each individual. Third, the future has been considered a personal social cognitive construction composed of such things as planning, expectations, aspirations, and goals.

These individualized temporal frameworks have been purported to also have associated optimistic, pessimistic, or realistic components akin to cognitive affective filters potentially affecting how positively, negatively, or realistically individuals conceive and interpret prior experiences, current daily life events, and conceptualizations of the future. As Trommsdorff (as cited in Seitjs, 1998) has stated, the future can be experienced as optimistic or pessimistic which can then influence an individual’s behavior. Optimism, pessimism, and realism however have been proposed to be more than mere qualifiers of the temporal frames. Optimism, pessimism, and realism have been conceptualized as being personality dispositions that provide individuals with a characteristic way of thinking about and of viewing these past, current, and future experiences. For instance, Schweizer and Beck-Seyffer (1999) have considered optimism to be a specific style of information processing. Therefore, these personality dispositions could be conceptualized as having further implications on individual styles of interpreting, reporting, and responding to events and experiences.

Thus, both time perspective and dispositional style have been proposed to influence human affectivity, perception, judgment, and behavior and therefore
could potentially have an affect on subjective happiness or well-being. This supposition has been founded in part upon subjective well-being research literature, which conceptualizes subjective well-being as a composite of subjective evaluations of life satisfaction, global summations of affective responses, and personal judgments of quality of life (Diener, 1984; Diener, Suh, Lucas, & Smith, 1999). Therefore, individuals who could envision a positive future and who espoused an optimistic dispositional style were expected to have a higher degree of subjective well-being than those individuals who appeared bound to a tragic past and who endorsed a pessimistic dispositional style.

Additional support for this supposition has been provided by prior research studies which have found significant positive relationships between future time perspective and mental health and well-being and between past time perspective and prolonged distress and depression (Holman & Silver, 1998). Likewise, present time perspective has been significantly linked to mental health problems, juvenile delinquency, and addictions (DeVolder & Lens, 1982; Zimbardo & Boyd, 1999). Furthermore, prior research has demonstrated high correlations between several measures of optimism and pessimism and measures of affectivity, satisfaction with life, and depression (Chang, Maydeu-Olivares, & D’Zurilla, as cited in Schiezer & Beck-Seyffter, 1999). Past research has also revealed significant relationships between time perspective and these personality dispositions as well as other personality characteristics. Mann, Kato, Fidgor, and Zimbardo (as cited in Zimbardo & Boyd, 1999) have reported a significant correlation between future time perspective and optimism in a study on childhood
cancer survivors. Additionally, Covas (2000) has discovered that resilient and non-resilient youths differed in time perspective but not in level of optimism or sense of purpose in life. Specifically, her study has illustrated that resilient youths maintained a future time perspective while non-resilient youths continued to focus negatively on their past.

While these studies have demonstrated important relationships between time perspective, personality dispositions, and mental health and well-being, these studies mainly narrowed their investigation to only one dimension of time perspective. Zimbardo and Boyd (1999) has criticized these earlier studies as incorrectly assuming that scoring low on one dimension of time perspective meant participants were high on another dimension of time perspective. Thus, prior research has often ignored the potential value of the other time perspectives in relation to personality dispositions and other essential components of subjective well-being leaving the relationship between the other temporal perspectives, other dispositional styles, and subjective well-being largely unexplored. In addition, an exploratory study concerning the existence of an optimal temporal profile, which combines individual temporal perspectives of past, present, and future as regards subjective well-being, has not been attempted using such a multidimensional, multileveled instrument as is undertaken in this study. Furthermore, the exploratory analysis of the role of dispositional styles in this relationship between personality, temporal perspectives and happiness or subjective well-being to date has not been extensively investigated. This present study attempted such investigations.
Given the complex composition of each concept under investigation, each construct has been discussed separately beginning with time perspective followed by happiness and subjective well-being, which are then linked through dispositional style. Each construct has been thoroughly but concisely detailed as regards their unique histories, dispositional characteristics, and their proposed interactive relationship with one another. However, time perspective, being the main construct of interest, has been discussed most extensively.
Chapter 2

Literature Review

Defining and Characterizing Time Perspective

Philosophers have recognized the conception of time as an important factor in human experience and behavior for centuries. While these ancient philosophers have referred to temporality as a fundamental aspect of human existence, interest in the conception of time, especially psychological time, has continually emerged among many diverse orientations -- namely clinical, social, and cognitive psychology over the last century. This continued interest in the concept of time has resulted in an abundant number of definitions being proposed for time perspective (TP) which have attempted to encompass the complex dynamics and multifaceted nature of the construct. In their review, Holman and Silver (1998) have found TP conceptualized as a foundation for the emergence of conscious thoughts and behaviors, as the contextual component which promotes human understanding and comprehension of experiences, and as the cognitive categorizer and organizer of behavior. Lewin (as cited in Seijts, 1998) has vaguely defined TP as the “totality of the individual’s view of his psychological future and psychological past existing at a given time” (p. 157). In addition, Nuttin and Lens (as cited in Lennings & Burns, 1998) have referred to TP as “a multidimensional construct related to the ability of individuals to anticipate future events and reflect on the past” (p. 630).

The complex and ambiguous nature of TP also has often prompted past researchers to provide a description of the characteristics of TP rather than to develop precise definitions. McGrath and Kelly (as cited in Lennings, 2000) have
successfully identified 211 different means researchers used to allude to the concept of TP. For example, Lennings and Burns (1998) have described TP as “an important but subtle cognitive construct underlying personality, decision making, and goal setting” (p. 629). In addition, Zimbardo and Boyd (1999) have proposed that TPs “exert a dynamic influence on many judgments, decisions, and actions” (p. 1272) and that TP “permeates and defines people’s existence” (p. 1276). Likewise, Holman and Silver (1998) have considered TP as “overarching cognitive response biases that filter and interpret the meaning of personal experiences” (p. 1146). Zimbardo and Boyd have suggested that these pervasive qualities of TP resulted in people often being unaware of the subtle influence or biasing powers of TP. Furthermore, Zimbardo and Boyd have considered these cognitive temporal biases as a type of dispositional style that assisted in characterizing and predicting how individuals may respond and react in numerous situations and life circumstances equating TP with a personality characteristic.

These prior attempts to compose accurate characteristic descriptions of TP have alluded to the associated cognitive, motivational, affective, and social underpinnings of TP. However, Zimbardo and Boyd (1999) have suggested that TP has an even more dynamic and complex structure than was previously believed, by proposing that these underlying components of TP simultaneously compose and exert influence upon the same psychological and sociological components that are contained within the various temporal frames. Thus, TP might be expected to affect how individuals interpret experiences, how they perceive events are integrated into their lives, what emotions are attached to these
experiences, and what actions they will take in response to these events. However, these same subtle characteristics and pervasive qualities of TP have prompted researchers to suggest that the average individual might rarely notice these proposed biasing operations and subtle functions of TP.

Arguing for a balanced time orientation. Cognitive temporal biases have been defined as being a habitual over-reliance on one or more specific temporal frames of reference or orientation (Zimbardo & Boyd, 1999). When individuals exhibited a past, present, or future TP bias their perception of past experiences, current daily life events, or future anticipated events has been subsequently “colored” or biased either negatively or positively and either accurately or inaccurately by the preferred temporal perspective. Past research has suggested that embracing biases toward any one temporal orientation may have detrimental consequences on identity formation (Rappoport, Enrich, & Wilson, 1985), satisfaction with self (Braley & Freed, 1971) and on personal achievement (Goldrich, 1967). Holman and Silver (1998) have found that excessive rumination on the past after a traumatic experience can result in stagnation, increased psychological distress, and temporal disintegration for an extended length of time. Research by Ball and Chandler (as cited in Karniol & Ross, 1996) has suggested that by having a present temporal bias individuals increased their risk of suicide. Baumeister (as cited in Karniol & Ross) has developed the term cognitive deconstruction to describe this occurrence when temporal focus has narrowed to the present causing individuals to neglect the past and the future as in this case.
A predominantly future temporal orientation, on the other hand, has very often been associated with such positive behaviors and characteristics as academic achievement and goal setting (Cottle, 1969; DeVolder & Lens, 1982; Lasane & Jones, 1999) and resiliency (Covas, 2000). Future time orientation has also been linked with social cognitive approaches to motivation (Karniol & Ross, 1996; Siejts, 1998) and has been proposed as a buffer against depression (Breier-Williford & Bramlett, 1995). In addition, Holman and Silver (1998) after an extensive review have purported that maintaining a future time perspective was most conducive to overall mental health and well-being. However, a strong future bias was observed by Zimbardo and Boyd (1999) to be associated with high degrees of stress and perceived time pressure or time urgency in college students. The results of this latter research study have suggested that a strong bias toward the future might also have potentially harmful implications on SWB and personal happiness.

Some theorists and researchers have therefore emphasized the need for an integration of all temporal perspectives (e.g., past, present and future) proposing that a combination as such would strengthen personal morale, assist with coping effectively with adversity, and in motivation (Holman & Silver, 1998; Karniol & Ross, 1996). Subsequently, Zimbardo and Boyd (1999) have proposed that a "balanced time orientation" would ideally enable individuals to be the most flexible and adaptive by enabling them to switch temporal frames dependent upon situational demands, resources, or personal and social appraisals. A balanced time orientation would then be expected to increase their chances for greater happiness.
or SWB by enhancing their abilities to cope more effectively with the demands of life and by preventing non-adaptive responses across situations. Alternatively, for example, individuals who overemphasize a past temporal perspective might be preventing themselves from conceiving and planning a happier present and future and might be predisposing themselves toward greater risks of depression, anxiety, and even suicide.

**Theoretical considerations of time perspective.** Lasane and Jones (1999) have found TP to be considered both a personality characteristic and a cognitive schema. Indeed, research findings have appeared inconclusive concerning TP as a stable personality disposition or cognitive structure. Numerous research findings, which concluded that perceived life circumstances were important determinants of TP, have provided supportive evidence for TP as a cognitive schema (Alvos, Gregson, & Ross, Henik, & Domino, as cited in Seijts, 1998). Thus, cognitions, perceptions and subjective interpretations have been found to influence and to be influenced by how one views time. Research findings have also suggested that TP is an outcome of the socialization process, which is supported by cross-cultural research studies and by studies on delinquents and non-delinquents (see Seijts, 1998 for details). Seijts has concluded that time perspective is a flexible construct and capable of modification based upon this evidence when defining a cognitive schema as the structuring of events in terms of their temporal sequence and causal order. Zimbardo and Boyd (1999) have concluded that TP is situationally determined and a relatively stable individual-differences process while citing that culture, education, religion, social class, and family modeling were some of the most prominent determinants of TP.
Additionally, Gjesme (as cited in Husman & Lens, 1999) has postulated that an individual’s TP developed “gradually to become a relatively stable personality characteristic in terms of a general capacity to anticipate and enlighten the future…” (p. 117). However, in their review, Fingerman and Perlmutter (1995) have concluded that empirical evidence for TP as a modifiable and developmental construct remains scant. Lennings and Burns (1998) have provided additional evidence supporting the stability of TP when they failed to find the existence of a developmental transition in temporal perspective between middle adolescence and early adulthood. In addition, research by DeNeve and Cooper (1998) has distinguished a dynamic cognitive aspect of TP as a personality characteristic.

This aforementioned controversy over TP as a stable personality characteristic or cognitive schema, has the appearance of being rooted somewhere in the many psychological and sociological intricacies inherent within the construct of TP resulting in the stability of TP being disputed. Thus, TP is composed of a diverse multitude of internal components, which have both state and trait qualities and these same state and trait qualities are then reflected in TP. Despite being unable to resolve the conceptual differences, some commonalities were extractable from the many definitions and characteristics of TP. First, there was agreement that TP had a dynamic structure (e.g., TP had contextual properties). Second, TP was decidedly multiply determined (e.g., TP was influenced by psychological and sociological factors). Third, TP was multidimensional (e.g., TP encompassed past, present, and future temporal
zones. Therefore, for the purpose of this study, TP was conceptualized as being a relatively stable individual-differences process, which is situationally determined consisting of multiple dimensions and levels as proposed by Zimbardo & Boyd (1999) in order to account for these three common characteristics of TP.

Measuring time perspective. The ability of researchers to critically analyze and thoroughly investigate the centrality of the construct of TP has understandably been undermined by these difficulties with conceptualizing and defining TP. Lennings (2000a) has purported that TP seems to be so obvious yet too difficult to operationalize, to manipulate, and to measure thus causing TP to remain on the periphery of many research studies. Early methods of assessing TP have included utilizing projective tests such as the Future Events Test (Kastenbaum, 1961; Wallace, 1956) the Story Completion Test (Barndt & Johnson, 1955), the technique of Time Metaphors (Knapp & Garbutt, 1958), and the Incomplete Sentences Test (Lessing, 1968). More recently, questionnaires have been developed to measure time orientation (Gonzalez & Zimbardo, 1985; Murrell & Mingrone, 1994; Stewart & Ahmed, 1984; Strathman, Gleicher, Boninger, & Edwards, 1994). However, these instruments have been determined to still be one-dimensional in nature, cumbersome to administer, difficult to score, and strongly influenced by situational and specific instrumental determinants (Lessing, 1968; Seijts, 1998; Zimbardo & Boyd, 1999). Overall, these measurement instruments have demonstrated low reliability, dubious validity, and inconsistent, noncumulative results (Seijts, 1998; Zimbardo & Boyd, 1999).

After critiquing these TP instruments, Seijts (1998) has concluded that TP remained an ambiguous construct with no apparent clear and precise definition.
acquiesced. He has proposed that this ambiguity increased the likelihood that such measures of TP are both contaminated and deficient. Additionally, Seitjs has cited the lack of adequate theory and the failure to link dispositional variables with TP as problems plaguing early studies. As a consequence, earlier researchers have consistently solicited for a multi-factored instrument to assess the multiple dimensions of TP (Lennings & Burns, 1998; Lessing, 1968; Seitjs, 1998).

In response, Zimbardo and Boyd (1999) have designed the Zimbardo Time Perspective Inventory (ZTPI) to address the shortcomings of these earlier scales. The ZTPI has been constructed to be a multidimensional assessment instrument of multiple temporal frames, which is based on theories of motivation, emotion, cognition, and social processes. The ZTPI has sought to encompass all known or suspected dimensions of TP and has succeeded in providing the fundamental theoretical structure that was previously absent in earlier TP instruments. Zimbardo and Boyd (1999) have contended that “variations in TP are learned and modified by a variety of personal, social, and institutional influences” (p. 1271), as well as that TP maintains the properties of a dispositional characteristic. Therefore, the ZPTI has been intended to assess personal variations in temporal profiles while operationalizing TP as “situationally determined and a relatively stable individual-differences process” (p. 1272). The ZPTI has been empirically derived, has ease of administration, and has demonstrated high reliability and validity. In addition, Zimbardo and Boyd have proposed that TP provides a structural foundation for many more visible constructs. Indeed, they have found the scale to be correlated with many personality constructs and
four out of the five temporal factors. In their analysis, self-reported happiness, as measured by a single item, was not significantly related to Future TP. This finding seemed to be incongruent with the aforementioned replicated results of earlier research studies linking positive behaviors such as study persistence and academic goal setting (DeVolder & Lens, 1982; Lasane & Jones, 1999) and mental health and well-being (Holman & Silver, 1998) to dominant future TP orientation and deserved further exploration.

Happiness has very often been used interchangeably with subjective well-being (SWB) and has been shown to encompass an expansive category of phenomena that includes emotional responses, domain satisfactions, and global judgments of life satisfaction (Diener et al., 1999). Happiness or SWB has again appeared to be a most arduous psychological construct to define with distinctions between the two concepts being quite fuzzy. For instance, happiness has been assumed to be a subjective phenomenon that includes “the experience of joy, contentment, or positive well-being combined with a sense that one’s life is good, meaningful, and worthwhile” (Lyubomirsky, 2001, p. 239). While, SWB has been considered to be a person’s evaluative reactions to his or her life—either in terms of life satisfaction (e.g., cognitive evaluations) or affect (e.g., ongoing emotional reactions) (Diener & Diener, 1995). Furthermore, life satisfaction has been defined as a global qualitative assessment of all aspects of a person’s life based upon his or her own chosen criteria (Deiner, 1984).

Three correlated but distinct factors have typically assessed SWB: the presence of positive affect, the absence of negative affect, and life satisfaction
The first two components have encompassed the affective, emotional aspects of happiness, whereas the latter component has represented the cognitive-judgmental aspects of happiness (Diener, Emmons, Larsen, & Griffin, 1985). These three components have often been summarized as happiness; therefore, these terms have been used interchangeably throughout this study (Ryan & Deci, 2001). Diener et al. (1999) have conceded that the subjective element of happiness assessment is essential. Additionally, numerous researchers have reported that the seemingly universal pursuit of happiness spanned across cultures (see Diener & Oishi, 2000; Diener & Diener, 1995; Freedman, 1978; Triandis, Bontempo, Leung, & Hui, 1990).

Indeed, Diener and Oishi have reported that the majority of college students from diverse cultures consider happiness and life satisfaction to be extremely important, even exceeding the worth they subsequently allot to money.

The role of personality. In a meta-analysis of the happy personality DeNeve and Cooper (1998) have determined that overall, personality is an important correlate of SWB. Furthermore, Diener et al. (1999) have posited that “personality is one of the strongest and most consistent predictors of SWB” (p. 279). DeNeve and Cooper (1998) have also suggested a relationship between chronic personality styles and individuals differences in SWB. They have stated that the personality dispositions that are most strongly related to SWB tend to be those concerning the characteristic experience of emotion (e.g., emotional stability and positive affectivity) and the characteristic explanation of life events (e.g., hardiness and trust). Additionally, Ryan and Deci (2001) have intuitively
argued that considering SWB is essentially subjective, “one would expect SWB to be affected by personality and by interpretive and reporting styles” (p. 152). However, Sandvik, Diener, and Seiditz (1993) have suggested that further research is needed to fully assess the discriminant validity of the many affective underpinnings of SWB. Therefore, Scheier, Carver, and Bridges (1994) have suggested that personality variables be decomposed into more basic units, such as optimism and pessimism in order to more accurately determine the associations that emerge.

Research has continually found high correlations between optimism and SWB in addition to numerous other stable personality dispositions (i.e., expectancy for control, locus of control, and self-esteem) (Diener et al., 1999). Also, positive thinking, an inherent cognitive aspect of optimism, has been suggested to be conducive to happiness (Myers & Diener, 1997). Optimism has also been related to greater physical well-being and higher quality of life (Scheier et al., as cited in Sandvik et al., 1993). Furthermore, research by Lyubomirsky and Tucker (1998) has demonstrated that characteristically happy people also seem to exhibit a comparable tendency to positively construe life events and interactions more than unhappy people do. Additionally, individuals high in SWB, relative to low SWB, seemed to display an inclination to perceive experiences and situations more positively (Lyubomirsky & Ross, as cited in Ryan & Deci, 2001). However, studies have also successfully discriminated between the concepts of optimism and happiness. Lyubomirksy and Lee (1997), for example, reported that despite considerable overlap within the concepts of dispositional optimism
and happiness the two correlates ultimately remained unique personality characteristics and distinct predictors of SWB in their study on happiness giving credence to the independence of the two constructs.

In addition to the strong relationship with SWB and happiness, optimism has also been linked to temporal perspective. Scheier et al. (1994) found that optimists have a tendency to hold positive expectancies for the future. Likewise, optimism has been defined as having a positive outlook on life, as embracing generalized expectancies for more favorable outcomes in upcoming present and future life experiences, and has been conceptualized as pervading people’s thinking about the future (Tiger, as cited in Taylor & Brown, 1988). In other words, optimistic dispositional style might be conceived as being a personality characteristic that dictates an inherent, habitual interpretative and reporting style, which subsequently affects the behavior and actions of individuals. Therefore, Optimism would appear to be able to influence or be influenced by the cognitive judgments and affectivity applied to various life events within the many temporal frames of one’s existence. Thus, TP and optimism, as dispositional styles, were suspected of having an intertwining relationship, which might subsequently influence degrees of SWB and deserved further investigation.

Diener (1984) has stressed the importance of adding TP as a variable in SWB. He has solicited for SWB researchers to investigate the array of correlates composing SWB within varying temporal frames in order to more accurately assess the integrated, subjective assessment individuals are reporting on all aspects of their life when they self-report SWB at a given time. In addition,
Shmotkin (as cited in Diener et al., 1999) has suggested that the cognitive component of SWB, life satisfaction, was a global summation of an individual’s evaluations of his or her past, present, and future domains underscoring the role time perspective may have in the relationship. Furthermore, Diener (1984) has stated that since “there is no a priori way to decide what time period is best” when assessing SWB, researchers should “uncover the correlates of SWB within the varying time frames” (p. 544). Likewise, Sheldon and Houser-Marko (2001) have induced researchers to examine the robust findings concerning SWB and happiness with respect to positive dispositional traits such as optimism and other general behavioral approach tendencies.

*Optimism, pessimism, and realism as dispositional styles.* Expounding on the relationship between happiness or SWB and optimism, pessimism and realism have been considered to be additional dispositional styles, which may be important mediating or moderating variables when investigating the association between personality dispositions and TP and SWB. According to Chang and McBride-Chang (1996) optimism and pessimism were correlated but independent traits not the bipolar opposites once proposed. Correspondingly, Burke, Joyner, Czech, and Wilson (2000), in their analysis of optimism-pessimism instruments have postulated that optimism and pessimism may have both state and trait components dependent upon the chosen assessment instrument. In addition, both optimism and pessimism have also been purported to have associated biases that may alter one’s self-reported degree of happiness. For example, whereas optimists have tended to maintain a positive outlook on life and to perceive experiences in life positively, pessimists have tended to embrace a negative outlook on life and on the
events that they have experienced. Robinson-Whelen, Kim, MacCallum, and Kiecolt-Glaser (1997) have suggested that by exploring optimism and pessimism separately, researchers might better determine whether the beneficial effects of optimism result from optimistic thinking, the avoidance of pessimistic thinking, or a combination of the two factors.

Kapci and Cramer (1999) have found evidence for the classification of participants into the categories of optimism, pessimism, and realism as regards judgments of control. Therefore, realism has been proposed as another potential dispositional style that individuals might espouse where they have a tendency to see things as they are, thus maintaining a realistic outlook on life. These individuals, therefore, might conceive life and life events as being neither “all rosy” like optimists nor as all “black” and foreboding like pessimists; instead, they view their world through filtered “psychological eyes” devoid of any optimistic or pessimistic biases innate in those particular dispositional styles.

Lessing (1968) has suggested that a multidimensional approach to time orientation that is qualified by aspects such as realism would hold the most promise for future research on TP and personality. However, Lyubomirsky (2001) has postulated that the motivational processes underlying this realistic outlook on life might undermine subjective happiness and well-being. Alternately, she has proposed that the motivational processes associated with an optimistic dispositional style might enhance SWB or happiness. Then inarguably, a pessimistic dispositional style would be expected to impair levels of happiness and SWB to the greatest extent. Studies have found a similar link between
pessimism and prolonged health problems and depression (Sandvik, et al., 1993). Likewise, equating accurate self-knowledge with realism, Taylor & Brown (1988) have suggested that accurate self-knowledge is not always positively related to psychological well-being and mental health and, instead, may be maladaptive. On the other hand, Kapci and Cramer (1999) have found that pessimists rather than realists had higher depressive symptomology and that pessimism was predictive of depressive symptoms three months later. Additionally, whereas Lyubomirsky (2001) and Taylor and Brown (1988) have proposed realism as a potential moderator of happiness and well-being, Jopling (1996) has suggested realism might play an adaptive role by expanding human experiences and might be a function of learning to face up to the vicissitudes of life. From the perspective of this latter viewpoint, realism would allow individuals “to develop a balanced and practical judgment based on insight into human development and life problems, an expertise in the domains of life planning and life review, and a realistic life-affirming acceptance of self, others, and the world” (Jopling, 1996, p. 539).

Furthermore, Dobson and Franche (1989) have reported that the evidence for the phenomenon of depressive realism diminishes when the ecological validity of the research studies is increased. Therefore, as a consequence of these conflicting suppositions, the direction of the relationship between TPs, dispositional styles, and SWB in relation to realism was not proposed; thus all subsequent investigations concerning realism were strictly exploratory.

In summary, temporality has been recognized as an important contextual component of human experiences. Temporal perspective has been viewed as
being a necessary but too often overlooked psychological component which needs to have a more central role in future psychological studies and theories in order to increase the current understanding of personality dispositions and SWB (Diener, 1984; Yonge, 1973; Zimbardo & Boyd, 1999). Prior research has shown TPs to have many implications on perceptions, judgments, and behaviors through associated affective, motivational, cognitive, and social processes. Thus, a multidimensional measure of TP has been proposed to be the most desirable means of accounting for and of assessing the many facets composing this complex construct. Likewise, Sandvik et al. (1993) have concluded that a broad base of measurement is most desirable when investigating SWB to better assess the experiential, communicative, behavioral, and physiological aspects of well-being and their interactions.

Research has also established that temporal perspectives interact with personality characteristics in dynamic ways. Lennings and Burns (1998) have found evidence for the existence of temporal profiles with the associated personality characteristics of human agency, mood, and temperament. In turn, personality variables have been known to exhibit some of the strongest influences on happiness and SWB (DeNeve & Cooper, 1998; Diener et al., 1999). Optimism has been one dispositional variable that has consistently shared a significant relationship with both SWB and Future TP (Lyubomirsky & Lee, 1997; Mann, Kato, Figdor, & Zimbardo, as cited in Zimbardo et al, 1999) and, therefore, might prove to be an important mediating variable in the relationship. In addition, pessimism has been purported as being a more salient predictor of psychological
and physical health outcomes than optimism in a study by Robinson-Whelen et al. (1997). Thus, pessimism might also play a unique role in the relationship between TPs and happiness and SWB. Finally, realism was explored as being another existing dispositional style and also as an additional potential factor in the relationship between TPs, dispositional styles, and happiness and SWB.

**Current Study**

Research to date has not examined the existence of an optimal balanced temporal profile using the ZPTI in relation to happiness or SWB. Although Mann et al. (as cited in Zimbardo & Boyd, 1999) have demonstrated that optimists scored higher on Future TP, research has not yet investigated the relationship between the five TP factors of the ZTPI and the dispositional styles of pessimism, and realism. Furthermore, the interaction between the temporal factors and the dispositional styles, specifically pessimism and realism, has not yet been examined as regards to their combined influence on happiness or SWB. Zimbardo & Boyd (1999) has successfully linked all five TPs with depression but did not include measures of optimism, pessimism or realism in their initial study validating the ZTPI. These dispositional styles might be mediating or moderating variables in the relationship between TP and depression and therefore should be considered important variables in studies examining the relationship between TP and SWB. For example, research has already established that pessimism is a well-recognized characteristic of depressives (Beck, as cited in Kapci & Cramer, 1999), and Kapci & Cramer have determined that pessimism about control is a vulnerability factor for depression. This present study was conducted in an attempt to help clarify and answer these questions.
The hypotheses for this study were as follows:

*Hypothesis 1: Five time perspectives were expected to emerge when subjected to principal component analysis. These five factors were expected to replicate those extracted by Zimbardo & Boyd (1999): Past-Negative, Present-Hedonistic, Future, Past-Positive, and Present-Fatalistic.*

The Zimbardo Time Perspective Inventory (ZTPI) has been designed to be a quantifiable measure of multiple time frames, as individual temporal profiles, assessing broad dimensions of TP that commonly factor into five temporal perspectives (Zimbardo & Boyd, 1999). A study by Vranesh, Madrid, Bautista, Ching, and Hicks (1999) has demonstrated the replication of these five TPs in relation to sleep problems. In addition, the results of Keough, Zimbardo, and Boyd (1999) have suggested that Present TP and Future TP are independent constructs further substantiating the factor structure of the instrument. Collectively, the results of these studies and of those cited in Zimbardo & Boyd have suggested that the five TPs would also be found in this current undergraduate student population. Despite evidence, which suggests that the five-factor structure of the ZTPI has already been established in an undergraduate population, the ZTPI should be considered a relatively new instrument and, therefore, replication and validation studies should be performed. In addition, since the existence of a five-factor structure for the ZTPI provided the basis for many of the other hypotheses in this study, this supposition has been included as the first hypothesis.
Hypothesis 2: A significant relationship was expected between the individual TPs and dispositional styles of optimism and pessimism. There were two components to this hypothesis.

A. Participants who were characterized as Past-Positive, Present-Hedonistic and Future oriented were expected to be more optimistic and less pessimistic.

B. Participants who were characterized as Past-Negative and Present-Fatalistic were expected to be more pessimistic and less optimistic.

According to Zimbardo and Boyd (1999) individuals characterized by the TPs of Past-Positive, Present-Hedonistic, and Future TP have exhibited characteristics that are generally associated with optimism. For example, these individuals had a positive attitude toward time and a healthy outlook on life (Past-Positive), an orientation toward enjoyment and pleasure (Present-Hedonistic), and an orientation for future planning (Future). Inversely, individuals characterized as Past-Negative and Present-Fatalistic have displayed characteristics that are generally associated with pessimism such as an aversion to the past and hopelessness in the present. Therefore, these individuals would be expected to display a general negative outlook on life and a negative attitude toward time. More specifically, Zimbardo and Boyd have reported many significant correlations between the five TPs and constructs that are often conceptually linked with optimism and pessimism such as self-esteem (e.g., Past-Positive) and
trait anxiety (e.g., Past-Negative) (for details see Scheier et al., 1994; Zimbardo & Boyd).

Hypothesis 3: A significant relationship was expected between the dispositional styles of optimism and pessimism and SWB. There were two components to this hypothesis.

A. Participants who advocated an optimistic dispositional style were expected to also report high levels of SWB.

B. Participants who advocated a pessimistic dispositional style were expected report low levels of SWB.

These hypotheses have been derived from Schier and Carver’s (1985) theory of dispositional optimism, which states that one’s characteristic thoughts about the future affects one’s circumstance and therefore one’s happiness and SWB. Optimists have incorporated a generalized tendency to expect favorable outcomes in one’s life, whether in the past, present, or future. In contrast, pessimists have maintained a generalized tendency to expect unfavorable outcomes, which could signify a more inactive and passive existence. For example, having positive expectancies for outcomes could be a motivator for individuals to strive harder toward achieving future goals. However, having expectations of failure could cause one to disengage from those goals and could lead to decrease motivation. In addition, Kapci and Cramer (1999) have reported that pessimists had significantly higher depression scores than optimists; whereas, Taylor and Brown (1988) and Erez, Johnson, and Judge (1995) have
demonstrated that optimists possess positive illusions and use more self-deception than pessimists which in turn fosters their SWB.

**Hypothesis 4:** A significant relationship was expected between the individual TP profiles and the dispositional styles of optimism and pessimism and SWB. There again were two components to this hypothesis.

A. *An optimal combined temporal profile as regards high degrees of SWB was expected. This profile was proposed to have a combination of characteristics from Past-Positive, Present-Hedonistic, and Future TPs along with an optimistic dispositional style.*

B. *Alternatively, combined temporal profiles consisting of Past-Negative and Present-Fatalistic TPs were expected to have a pessimistic dispositional style and to report low degrees of SWB.*

Zimbardo and Boyd (1999) have proposed that a balanced TP is the most psychologically and physically healthy for individuals and optimal for societal functioning. They have suggested that, specifically, individuals need a combination of Future, Past-Positive, and Present-Hedonistic TPs in order to reach their full human potential. They have proposed that this combination of TPs would provide individuals with the ability to reach new heights of achievement (Future), a stable sense of personal identity (Past-Positive), and the ability to nourish their daily lives with excitement and enjoyment (Present-
Hedonistic). Optimism, in turn, would provide a general tendency for positive affect, and a characteristically positive way of perceiving and interpreting experiences having a positive influence on SWB.

_Hypothesis 5:_ Realistic dispositional style was investigated, as an additional variable in the relationship between the five TPs, the dispositional styles of optimism and pessimism, and SWB. No directionality was assumed for this hypothesis and all data analysis was exploratory in nature.

Prior research findings on realism have pointed to a possible moderating affect of realism on happiness and SWB. However, these studies have failed to produce consistent results. Therefore, this analysis of the relationship between realism as a dispositional style and TPs, optimism and pessimism, and SWB was conducted as an exploratory study and no directionality was proposed in the hypothesis. Diener et al. (1999), however, have suggested that future research should explore the influence that such cognitive tendencies have on personality and how the two interacted to influence happiness and SWB.
Chapter 3

Method

Participants

Research participants were approached in their respective classes and were asked to participate on a voluntary basis by the researcher. Two hundred and twenty-five students (68% females) from a moderate sized public university in the mid-south were recruited from undergraduate psychology classes and chose to participate. All participants received extra credit for their involvement.

Participants ranged in age from 18 to 33 years of age ($M = 19.1; SD = 1.96$). Caucasians accounted for the majority of ethnicity within the population having a total of 202 (89.8%) participants. The majority of participants were also college freshmen accounting for 66.2% of the population with sophomores composing an additional 23%, juniors (6%) and seniors (5%), respectively.

Materials

The participants were given the five assessment instruments and completed the materials in a reserved classroom as a collective group. The measurement instruments were counterbalanced to decrease the likelihood of error from order effects and were completed within the same time frame. A brief summary of each assessment instrument has been provided in the following two measurement sections, and all descriptive data for each composite scale has been detailed. Internal consistency coefficients for all measures were estimated using Cronbach’s coefficient alpha.
Predictor measures. The Zimbardo Time Perspective Inventory (ZTPI) (Zimbardo & Boyd, 1999) was the instrument used to assess TP (See Appendix A). The ZTPI is composed of 56-items that are answered on a 5-point scale from 1 (very uncharacteristic) to 5 (very characteristic) with respondents being asked to read each item and answer as honestly as they can, "How characteristic or true is this of you?" Zimbardo and Boyd (1999) have reported that the ZTPI has been found to reliably produce 5 distinct temporal factors: Past-Negative, Present-Hedonistic, Future, Past-Positive, and Present-Fatalistic. The Past-Negative TP is characterized by a pessimistic, negative, or aversive attitude toward the past, whereas, the Past-Positive TP embodies a glowing, nostalgic, positive construction of the past. The Present-Hedonistic TP reflects an orientation toward present enjoyment, pleasure, and excitement, without sacrifices today for rewards tomorrow. Conversely, the Present-Fatalistic TP is characterized by a fatalistic, helpless, and hopeless attitude toward life and the future. Finally, future planning and goal achievement and a positive conception of the future characterize the Future TP. These five factors are designed to generate independent temporal profiles.

Research studies have since demonstrated the salience and predictive power of TP as assessed with the ZTPI. TP has been reported to have implications for health related behaviors such as substance use and abuse (Keough et al., 1999; Vranesh et al., 1999), depression (Breier-Williford & Bramlett, 1995) and resiliency (Covas, 2000). Zimbardo and Boyd (1999) have reported test-retest reliabilities ranging from .70 to .80. Individually, the Future scale has
demonstrated the highest reliability (.80), followed by the Present-Fatalistic (.76), Past-Positive (.76), Present Hedonistic (.72), and Past-Negative (.70). Additionally, all of the five scales have demonstrated satisfactory internal consistency ranging from .82 for Past-Negative TP to .77 for Future TP. Convergent, divergent, discriminant, and predictive validity for the ZTPI have been established through correlational and experimental research which has been further supported with detailed case studies (see Zimbardo & Boyd, 1999 for details). The results of the principal component analysis for this scale have been reported in the results and analysis section and provided the results for the first hypothesis proposed in this study.

The Life Orientation Test-Revised (LOT-R) (Scheier et al., 1994) provided the measurement of optimism and pessimism (See Appendix B). The LOT-R contains 6 scored items with 4 filler items meant to disguise the instrument for a total of 10-items. The items are assessed on a 4-point scale, from 0 (strongly disagree) to 4 (strongly agree). The LOT-R has been constructed based upon suggested improvements for the original scale, the Life Orientation Test (LOT) (Scheier & Carver, 1985), and has demonstrated a high correlation, \( r (622) = .95, p < .001 \), with the original scale (Cohen & Cohen, 1983). The LOT has been considered as one of the most influential indexes of dispositional optimism (Marshall, Wortman, Kusulas, Hervig, & Vickers, as cited in Chang & McBride-Chang, 1996) and has allowed for the identification of two distinct factors: optimism and pessimism (Chang & McBride-Chang; Hjelle & Belongina, 1996). More recently, Burke et al. (2000) have postulated that the LOT-R may
measure trait or dispositional optimism and pessimism, whereas the alternate Optimism/Pessimism Scale (OPS) (Dember & Brooks, as cited in Chang & McBride-Chang) may be measuring state optimism and pessimism. The LOT-R has demonstrated test-retest reliabilities ranging from .68 for 4 months to .79 for 28 months (Scheier et al., 1994). The LOT-R has also shown good discriminant, convergent, divergent, and predictive validity and has demonstrated acceptable fit for either a two-factor or one factor model (see Scheier et al., 1994, for review).

For the LOT-R, principal component analysis extracted one factor, a pessimism factor. However, since the LOT-R has been purported foremost as a measure of optimism, the 3 pessimism items were reverse coded to yield one optimism factor, as suggested by Schier et al. (1994). The Cronbach's alpha coefficient was .77 (M= 2.48, SD = .64). Participant’s scores were then divided by the mean to distinguish the optimists from the pessimists. The resulting intercorrelation between these two classifications was \( r (225) = - .54, p < .01 \). Those participants scoring above the mean were classified as optimists, and those scoring below the mean were classified as pessimists. As a result, the majority of participants (96) were categorized as pessimists, whereas only 63 were categorized as optimists. However, Lindsey (as cited in Burke et al., 2000) proposed that the LOT-R should analyze an overall scale score and two subscale scores in order to more accurately encompass the full factor structure of the instrument. Burke et al. (2000) concurred stating that this method of measurement was advisable, since existing evidence suggests that optimism and pessimism are separate dimensions that could attribute individually for unique variances in
outcomes. Therefore, the LOT-R overall score was maintained and used in subsequent analyses in addition to the Optimism and Pessimism scores.

The Reality Scale was adapted from the LOT-R and was developed by the researcher to assess the dispositional style of realism (See Appendix C). Items for this scale were constructed following extensive review and analysis of the research literature on realism. These scale items were further modified by comparing them to those items composing the LOT-R in order to reduce conceptual overlap. The scale consisted of 5-items answered in the same format as the LOT-R, and these items were substituted for the LOT-R’s filler items. Initial principal component analysis revealed one distinct factor for the Realism Scale, a realism factor (eigenvalue = 2.03; explained 40.6% of variance). However, only two of the original items were retained in the final analysis to yield a Cronbach’s alpha coefficient of .72 (\( M = 3.02, SD = 0.74 \)). These items were “I like to see things as they really are” and “I am usually pragmatic or realistic about things.” The mean was used to dichotomize participants’ scores into realists and non-realists with those scoring above the mean classified as realists and those scoring below the mean classified as non-realists. This categorization resulted in a total of 165 participants being labeled as realists.

Although the Reality Scale did not share any significant relationships with any of the LOT-R scores upon analysis, considerable overlap was seen among participants as regards to dispositional style. Thus, only 53 of the total participants could be solely classified as realists, whereas 68 participants endorsed both a
pessimistic and a realistic dispositional style, and 44 participants endorsed both an optimistic and a realistic dispositional style.

**Dependent measures.** The Satisfaction with Life Scale (SWLS) (Diener et al., 1985) provided the measurement of subjective life satisfaction, the cognitive-judgmental aspect of SWB (See Appendix D). The scale has 5-items assessed on a 7-point rating scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The SWLS has shown favorable psychometric properties with satisfactory internal consistency reliability (Cronbach’s alpha = .91) and adequate convergent and discriminant validity (i.e., .57 with domain satisfaction) (Diener et al., 1985; Lewis & Joseph, 1995). Furthermore, Sandvik et al. (1993) have demonstrated that the SWLS is a reliable and valid SWB measurement apparatus. The SWLS had a Cronbach’s alpha coefficient of .84 for this study with $M = 5.04$, and $SD = 1.19$.

The Depression-Happiness Scale (McGreal & Joseph, 1993) assessed self-reported levels of happiness (See Appendix E). The scale was designed to adequately eliminate floor or ceiling effects of other similar instruments by measuring the affective continuum from happiness to depression in the general population. For this reason, the scale has been proposed as an adequate self-report measure of negative to positive affect (Lewis & Joseph, 1995; Walsh, Joseph, & Lewis, 1995). The scale contains 25-items rated on a 4-point scale ranging from 0 (*never*) to 3 (*often*) and asks respondents to indicate how frequently each statement was true for them in the past seven days. Of these items, 12 assessed positive thoughts, feelings, and bodily experiences and 13
assessed negative thoughts, feelings, and bodily experiences (Lewis, McCollum, & Joseph, 1999). Internal reliability estimates have been reported as being high (Cronbach’s alpha = .93), and the scale’s good discriminant validity scores have distinguished the Depression-Happiness Scale from other measures of depression (see McGreal & Joseph). Additional research by Walsh et al. (1995) has confirmed the internal consistency reliability and convergent validity of the Depression-Happiness Scale with the adult population. Test-retest reliabilities for the Depression-Happiness Scale have ranged from .70 over two weeks (Lewis et al., 1999) to .55 over two years (Lewis & Joseph). This finding has prompted some researches to propose that the Depression-Happiness Scale is a measure of trait happiness (Lewis & Joseph).

For this study, the 13 depression items on the scale were reversed coded in order to extract only one factor, a happiness factor. This happiness score served as the dependent measure of the presence of positive affect and the absence of negative affect, the final two components of SWB. Those participants who scored higher on this instrument were happier and reported more positive affect than did those who scored lower on the scale. A significant strong positive correlation was found between the SWLS and the Depression-Happiness Scale, $r (225) = .61$, $p < .01$, and therefore provided the justification for combining these scales into an index score representing SWB. In order to create the dependent measure of SWB, all participants’ scores on the SWLS and the Depression-Happiness Scale were first re-scaled into comparable z-scores. These modified scores were then indexed as a SWB composite score for each participant.
Chapter 4

Results

In the following section, all significant relationships and correlations that were found between the predictor variables and dependent variables have been reported. Initial analysis of the ZTPI revealed several significant differences for the demographic variables of gender, age, and year in school across the TP factors of Future, Present-Hedonistic, and Past-Positive TP. First, women scored significantly higher than men on the Future factor, $F(1, 222) = 6.74, p < .01$ (women: $M = 3.46, SD = 0.61$; men: $M = 3.23, SD = 0.65$). Second, age was significant for the Present-Hedonistic factor, $F(11, 213) = 2.42, p < .05$, as was year in school, $F(4, 220) = 2.43, p < .05$. Through bivariate correlational analysis a significant negative correlation between age and Present-Hedonistic TP was also found, $r(225) = -.23, p < .001$. Third, women scored significantly higher than men on the Past-Positive TP factor, $F(1, 222) = 10.48, p < .001$ (women: $M = 3.83, SD = 0.54$; men: $M = 3.59, SD = 0.49$). Significant differences were also found between age groups, $F(11, 213) = 2.66, p < .05$ and genders, $F(1, 222) = 4.54, p < .05$, on the Reality Scale. Results showed that twenty-one-year olds scored the highest ($M = 3.6, SD = 0.42$) and that men ($M = 3.17, SD = 0.67$) scored higher than women ($M = 2.94, SD = .76$). Analysis of the SWLS revealed significant differences for age, $F(11, 213) = 2.75, p < .05$, and for year in school, $F(4, 220) = 5.69, p < .0001$. Significant negative correlations were also noted for the SWLS and year in school, $r(225) = -.20, p < .01$, and age, $r(225) = -.20, p <$
.01. No significant order effects were found for any of the assessment
instruments in this study.

The first hypothesis proposed that the five-factor structure of the ZTPI
would be replicated in this student population. This hypothesis was confirmed
through exploratory principal component analysis with varimax rotation
performed on the 56-items, and missing values (4% of the data) were replaced
with the mean duplicating the methods utilized by Zimbardo and Boyd (1999).
The criterion of an eigenvalue equivalent to or exceeding 1.00 was used for
determining the significant factors, which emerged upon analysis. As a result, five
TP factors were disclosed which explained 37.6% of the total variance. This
replication closely resembled the 36% of the total variance explained by these five
distinct factors found in the Zimbardo and Boyd study. The first factor, Future TP
(eigenvalue = 7.04; $M = 3.39, SD = 0.63$), explained 12.6% of the variance and
reflects a general orientation toward the future through planning and the
achievement of goals. Cronbach’s alpha coefficient for this factor was .83. The
second factor to emerge, Past-Negative TP (eigenvalue = 5.84; $M = 2.85, SD =
0.73$), explained 10.4% of the variance and reflects a general negative view of the
past. The Cronbach’s alpha coefficient was .82. The third factor, Present-
Hedonistic TP (eigenvalue = 3.79; $M = 3.45, SD = 0.51$), explained 6.8% of the
variance and reflects a general orientation toward present hedonistic pleasure and
enjoyment. Cronbach’s alpha was .77. The fourth factor, Past-Positive TP
(eigenvalue = 2.31; $M = 3.76, SD = 0.54$), explained 4.1% of the variance and
reflects a general sentimental attitude toward the past. Cronbach’s alpha
coefficient was .71. The fifth and final factor, Present-Fatalistic TP (eigenvalue 2.06; $M = 2.47$, $SD = 0.54$), explained 3.7% of the variance and reflects a general fatalistic view of life and of the future. Cronbach's alpha coefficient was .63.

Salient factor scores provided the determinant factor loadings for each individual item on the ZTPI (Harman, 1976). However, some discrepancies were revealed between the item loadings of some of the items in this study and those item loadings as reported by Zimbardo and Boyd (1999). These discrepant items were then placed on the appropriate factor according to the TP scales of Zimbardo and Boyd. Thus, this researcher chose to defer to their established scales. The results of the item loadings for each scale have been briefly described below in ranges, and any exceptions have been noted to allow for comparison to those item loadings as reported by Zimbardo and Boyd. (See Appendix A for the items that are noted below). All 10-items composing the Past-Negative scale loaded on this factor with their factor loadings ranging from .38 to .82. One exception was noted for item 5, which loaded higher on the Present-Fatalistic scale (.33). The 15-items composing the Present-Hedonistic scale had factor loadings, which ranged from .11 to .74. Two exceptions were noted for this scale: item 12 loaded higher on the Past-Positive scale (.26) and item 28 loaded higher on the Future scale (-.53). The range of the 13-items composing the Future scale was from .34 to .67, and no exceptions were found for any items on this scale. The 9-items of the Past-Positive scale had factor loadings ranging from .00 to .60. Three exceptions were found on this scale with all three items loading higher on the Past-Negative scale than on this scale: item 7 (-.50), item 11(-.70), and item 25 (.72). The 9-items of
the Present-Hedonistic scale had a factor loading ranging from .24 to .60. One exception for this scale was noted, item 52 loaded higher on the Future scale (-.37) than on this scale.

Significant intercorrelations were found between the five factors in this study which closely resembled those of Zimbardo and Boyd (1999). These correlations ranged from -.48 between Present-Hedonistic TP and Future TP to .21 between Present-Hedonistic TP and Past-Positive TP. Significant correlations were also found between these individual TP factors and the dependent measures of the SWLS, the Depression- Happiness Scale, overall LOT-R score, and SWB and are illustrated in Table 1.

The second hypothesis proposed that a significant relationship would be found between the individual TPs and the dispositional styles of optimism and pessimism. More specifically, Past-Positive, Present-Hedonistic, and Future TPs were hypothesized to have a significant relationship with optimism whereas Past-Negative and Present-Fatalistic TP were hypothesized to have a significant relationship with pessimism. Bivariate correlational analyses were conducted on the five TPs assessing their relationship with the overall LOT-R score and Optimism and Pessimism scores in order to test this hypothesis. Results were mixed for the first component of this hypothesis and are illustrated in Table 1. Significant correlations were demonstrated between Past-Positive TP and all dispositional measures and between Future TP and Pessimism. Worth noting was the finding that Future TP was the only temporal factor found to share a marginal but significant positive relationship with the Reality Scale, \( r (225) = .14, p < .05 \).
Present-Hedonistic TP, on the other hand, failed to correlate significantly with any of the dispositional styles. The second component of the second hypothesis was that a significant relationship between the remaining two TPs and optimism and pessimism would be found. This component was true as predicted. Results for this analysis are also illustrated in Table 1.

The third hypothesis postulated that participants who were optimistic would report having higher levels of SWB. Inversely, participants who were pessimistic were expected to report having lower levels of SWB. This hypothesis was accurate for both components. Optimism scores were found to correlate equally with the Depression-Happiness Scale, $r(225) = .35, p < .01$ and the SWL, $r(225) = .35, p < .01$. Therefore, Optimism also had a moderate and significant relationship with SWB, $r(225) = .39, p < .01$. For the second component of this hypothesis, Pessimism scores were found to correlate significantly and negatively to the Depression-Happiness Scale, $r(225) = -.49, p < .01$ and the SWLS, $r(225) = -.45, p < .01$. Thus, Pessimism scores also demonstrated a significant negative relationship with SWB, $r(225) = -.52, p < .01$.

Linear hierarchical regression was performed to test the fourth hypothesis, which proposed that an optimal combined temporal profile would be found in relation to SWB. In this analysis, the five TPs were treated as a variable set in the first block and the overall LOT-R score was added in the second block. As predicted, this hypothesis was true for this sample population. The Present-Hedonistic, Future, and Past-Positive TPs were found to be the best combination
of predictors for high SWB and accounted for 41% of the total amount of variance, $F(5, 219) = 30.45, p < .001$. In addition, the results demonstrated that when Past-Negative and Present-Fatalistic TPs were low SWB was higher. This analysis also showed that the five TPs and the overall LOT-R score each contributed uniquely to the prediction equation for SWB. However, the most significant contribution in the prediction equation came from the TPs with the overall LOT-R scores contributing only minimally to enhance the predictive power of the TPs. These results are illustrated in Table 2.

The final hypothesis proposed that a moderated relationship would be found between TP and the dispositional styles of optimism and pessimism and SWB when participants also had a realistic dispositional style. A subgroup moderator analysis was conducted using the overall LOT-R score in order to test this hypothesis. Overall, this hypothesis gained weak support from the results. Results indicated that Realism indeed had a moderating affect on the relationship between TP and SWB but that this change was only significant for Past-Positive and Present-Fatalistic TPs. The correlation between Past-Positive TP and SWB for realists was $r(165) = .34, p < .001$, whereas the correlation increased significantly for non-realists, $r(60) = .67, p < .001$. Additionally, the significant negative relationship between Present-Fatalistic TP and SWB became non-significant for non-realists but continued to be significant for realists, $r(165) = -.20, p < .01$. However, notable moderating affects were evidenced on the relationships the TPs shared with the overall LOT-R score. For instance, the correlation between Past-Positive TP and overall LOT-R score increased
significantly from $r(165) = .31, p < .001$ for the realists to $r(60) = .61, p < .001$ for non-realists. A similar significant change was noted on the relationship between Past-Negative TP and overall LOT-R score for the realists $r(165) = -.45, p < .001$ versus the non-realists $r(60) = -.68, p < .001$. In addition, the correlation between Future TP and overall LOT-R score became weak but significant for realists, $r(165) = .21, p < .01$, as opposed to non-realists who maintained a nonsignificant relationship between the two variables. This change occurred also for Present-Fatalistic TP and overall LOT-R score, with the realists, $r(165) = -.28, p < .001$, maintaining a weak but significant relationship while the non-realists gained a nonsignificant relationship between these two variables.
Chapter 5

Discussion

Statistical analysis conducted to examine the relationships between the TPs and the demographic variables has revealed some significant results. First, the significant relationship that was found between Future TP and gender suggests that the women in this study tended to have more characteristics representative of a future temporal orientation than the men such as future planning and goal motivation. Second, the significant relationship that was found between age and year in school and Present-Hedonistic TP suggests that younger participants seem more likely to have Present-Hedonistic characteristics than the older participants. Similarly, results suggest that participants in the lower grades appear more likely to report having Present-Hedonistic tendencies. Third, the significant relationship that was found between gender and Past-Positive TP suggests that women seemed more likely to embrace characteristics representative of Past-Positive TP than men such as feelings of nostalgia and positive sentiment toward their past. This finding may be a result of the socialization differences between the genders with emotionality generally being more acceptable for women than for men. Forth, the marginal but significant negative correlation Past-Positive TP demonstrated with age suggests that the younger students in this study were more likely to report having Past-Positive characteristics than the older students were. Many of these findings may be a result of the population that was sampled; that is, the majority of the participants in this study are new college freshmen who are currently in a period of transition or adjustment to college life and who may be feeling
homesick or lonely. In addition, these participants may be seeking to explore their newly found independence and may be actively seeking new affiliations and friendships, which may be expressed by Present-Hedonistic characteristics. Further exploration of the relationships between demographic variables and the TPs in other population samples could provide more information on how socialization practices and current circumstances may influence TP.

Furthermore, the significant findings for age and gender as regards the Reality Scale suggests that not only did the twenty-one year-olds appear more likely to embrace a realistic disposition, but also the men in this study seemed more likely to do so than did the women. Likewise, results suggests that participants who are older and in the upper classes appear more likely to report less satisfaction with their lives than the younger participants in the lower classes. This result may be a function of the discrepancies that were discovered between the expectations and aspirations of these older participants and their achieved goals and current circumstances which is in line with judgment theories of happiness. Judgment theories of happiness propose that happiness depends upon the discrepancy in a person’s life between actual conditions and aspirations and that happiness depends on the ratio of fulfilled desires to total desires (Diener, 1984). The expectations and aspirations held by the younger participants may still have to be tested; thus, there may be no data available for them to make a comparison at this point. However, this difference between the levels of life satisfaction that was reported by the younger and the older participants may be more than situationally dependent and may instead be a function of heredity either
directly or indirectly. For example, Magnus and Diener (1991) indicate that measures of personality predicted life satisfaction four years later, even after controlling for the influence of intervening life events. Furthermore, Plomin, Lichtenstein, Pedersen, McClearn, and Nesselroade (as cited in Diener, 1984) reported that genes have influence on life events through their ability to increase the probability that certain life events will be experienced. Future research studies that investigate the relationship between personality and life satisfaction that include life events could provide more clarification as to the meaning behind these current findings and could provide useful information for college counselors and advisors as regards student retention, career satisfaction and advising, and academic achievement.

The extraction of the five TPs in the present study closely replicates the results of Zimbardo and Boyd (1999) and confirms the first hypothesis of this study. Overall, the eigenvalues, variances, means, and standard deviations of these five factors are comparable to those reported by Zimbardo and Boyd. However, one notable exception should be made concerning Past-Negative and Future TP. Zimbardo and Boyd report that Past-Negative accounted for the majority of the variance in their study (12.3%), whereas Future TP explains the majority of the total variance in this current study. Past research studies using the Stanford Time Perspective Inventory (STPI), the preliminary scale constructed by Gonzalez and Zimbardo (as cited in Lennings, 2000b), report that some variant of the future scale appears to be the most stable and most validated scale of the five
scales. This finding may be true of the ZPTI also. Future studies utilizing the ZTPI could confirm this proposition.

In addition, the intercorrelations that were found between the various temporal factors are similar to those found by Zimbardo and Boyd (1999). Thus, this study further supports both the validity and reliability of the five temporal perspectives of the ZTPI in an undergraduate student sample. Overall, the seven exceptions on the item loadings that were reported represent only a small minority of items out of the total 56-items that compose the ZTPI. These exceptions may be interpreted as simply being a function of the differences between the sample in this study and the sample surveyed in Zimbardo and Boyd. Indeed, the TP factors that emerge when using this instrument may in part be a function of both age and type of population under study. For example, Lennings (2000a) reports failing to find evidence of either a Future TP or a Past TP in a study on life satisfaction and the elderly using the ZTPI. In addition, Gonzalez & Zimbardo (1985) report that four subfactors of the Future TP have emerged in their earlier scale when a more general population was surveyed (Future-Work-Motivation-Perseverance, Future-Goal Seeking-Long Term Planning, Future-Specific Daily Planning, and Future-Pragmatic Action for Later Gain). Therefore, Zimbardo and Boyd postulate that a more complex set of future subfactors such as these may be found in a variety of noncollege populations. Future research could benefit from investigating TP in relation to a more diverse sample population.

This study further substantiates the relationship between personality variables, namely personality dispositions and TP. The anticipated relationships
between the Past-Negative, Past-Positive, and Present-Fatalistic TPs and Optimism and Pessimism are evidenced through significant bivariate correlations. However, the weak correlation between Past-Positive and Optimism may suggest that Past-Positive TP may embody positive characteristics but not necessarily optimistic characteristics although the dividing line between the two may be fuzzy. Examples of such positive characteristics may include friendliness, high self-esteem, and a strong connection to family and friends. The correlation that was found between Future TP and Realism may be a result of the practicality of the characteristic planning and striving for goals that is embodied within this TP. The failure of this TP to correlate significantly with Optimism may again be a consequence of the scale reflecting positive traits but not necessarily optimistic traits such as conscientiousness and consideration of future consequences. Indeed, the negative relationship between Future TP and Pessimism suggests that this TP may be more oriented toward planning for tangible achievements and goals and less oriented toward positive expectations and aspirations. Previously, when assessing the questionnaire developed by Gonzalez and Zimbardo (1985), the foundation upon which the ZTPI was devised, Seijts (1998) reports finding only two main components of the future scale that could be identified: goal seeking and planning and pragmatic action for later gain. Results from this study suggest that some of these components are still evident within the Future scale of the ZTPI.

The failure of Present-Hedonistic TP to correlate with any of the dispositional styles may suggest that the hedonistic qualities contained within this
TP may not have had any direct association with these personality dispositions. Instead, the characteristics that are captured within the Present-Hedonistic TP may simply embody the tendency to weigh instant gratification and the obtainment of pleasure against short-term deprivation and displeasure. Additionally, these results appear to indicate that the Present-Fatalistic TP may be capturing other negative personality traits or dispositions (e.g., hopelessness and helplessness) more than pessimistic characteristics. This result may also be evidence of the contra-indications latent within this temporal perspective. This TP has novelty and sensation seeking characteristics as well as a common positive association with substance abuse (Breier-Williford & Bramlett, 1995). The relationship Present-Hedonistic TP appears to also maintain with both Past-Positive and Present-Fatalistic TP as evidenced by weak but significant intercorrelations, further exposes the dualistic nature of Present-Hedonistic TP. For instance, individuals who have Present-Hedonistic characteristics have the potential to disregard the future implications of their behavior and be reckless and daring or the potential to embrace the simple pleasures and subtleties of life and to nourish their daily lives with playfulness and sensuality. This latter quality appears to be the characteristic that needs to be cultivated in order to enhance SWB and happiness in the present tense. Additionally, this characteristic appears to be the quality of Present-Hedonistic TP that contributes effectively to the optimal temporal profile combination of Past-Positive, Present-Hedonistic, and Future TP characteristics that was proposed by Zimbardo and Boyd (1999) and which found support in this analysis. First, the Past-Positive TP may provide the
essential positive foundation for a stable personal identity and a network of strong emotional supports. Second, the Present-Hedonistic TP may allow individuals to find pleasure in the moment and to explore oneself and life by taking risks. Third, the Future TP may provide individuals with a more structured future outlook, personal ambition, and achievement motivation encouraging a more active, involved existence. Possibilities do exist that the three TPs composing the optimal combination profile interact in such a way as to bring out the best characteristics of each individual TP or that together they can successfully contain or restrain those characteristics which could potentially harm SWB. More in depth analysis of the actual component structure of Present-Hedonistic TP could prove especially instructive for future research specifically in the areas of SWB and substance abuse.

Results of this study also seem to suggest that although optimism appears to be conducive to SWB, optimism remains only one of the vast number of personality correlates contributing to SWB as evidenced by the small correlation between the two variables. Indeed, Diener et al. (1999) state that searching for a single cause of happiness is pointless. Instead, they emphasize that understanding the complex interplay of culture, personality, cognitions, goals and resources, and the objective environment is crucial to increasing the understanding of SWB. These results also appear to indicate that of the two dispositional styles pessimism may have more influence on SWB than optimism and that having a pessimistic disposition seems to coincide with lower SWB. This supposition that pessimism may be a stronger predictor of SWB than optimism corresponds with the findings
reported by DeNeve and Cooper (1998) which demonstrated that neuroticism (i.e., the absence of optimism) was the strongest predictor of life satisfaction, happiness, and negative affect. Furthermore, Scheier et al. (1994) suggest that the pessimistic facet of neuroticism may be a better predictor of such variables pertinent to SWB as active coping and positive reinterpretation than the emotional liability component and this may be reflected in the results of this study.

Overall, results exploring the independent relationships that optimism and pessimism each seem to maintain with the TP factors and the measures assessing SWB appear to be informative; therefore, examining these two constructs separately may benefit future research on personality. Optimism and pessimism reportedly have unique associations with many personality characteristics (Scheier et al., 1994). Diener et al. (1984) also reports that positive and negative affect correlate frequently with different variables and that optimism is frequently associated with positive affect, whereas pessimism is commonly associated with negative affect. Furthermore, optimists and pessimists differ in their stable coping tendencies (Carver, Scheier, & Weintraub, 1989) which can also influence SWB. Optimists tend to use more problem-focused or adaptive emotion-focused coping tendencies, but pessimists tend to cope through overt denial and mental and behavioral disengagement strategies (Scheier et al.). Both optimism and pessimism can be conceptualized as being distinct but opposing explanatory, interpretive and attributional styles that can affect one’s affective reactions and one’s cognitive-judgments and therefore one’s SWB. Individual TPs then contain or are influenced by aspects of these styles of information processing and
allowing TP to also have the capability to impact SWB. Future research studies investigating the relationship between TP, personality, and SWB could benefit from including measures of both optimism and pessimism by providing a closer examination of the unique contribution of these dispositions to the three components of SWB.

Most importantly, this research study underscores the unique and substantial contributory role that TP plays in subjective happiness or SWB. These analyses also demonstrate the important contribution of the various temporal perspectives with regard to the Depression-Happiness Scale and SWLS. However, each relationship shared with the outcome variables appears to be unique to each TP. For example, Present-Hedonistic TP seems to influence the cognitive-judgmental component of SWB, whereas Future TP appears to influence the cognitive-affective component. The internal components of each TP may have substantially contributed to these relationships and may be reflective of the unique relationship the TPs have with many different personality variables as demonstrated by Zimbardo and Boyd (1999). For instance, neuroticism or emotional stability is reported to correlate significantly with Past-Negative, Present-Hedonistic, and Present-Fatalistic TPs while, self-esteem is reported to correlate significantly with Past-Negative, Future, Past-Positive, and Present-Fatalistic TPs. In turn, Diener et al. (1984) reports that high self-esteem is one of the strongest predictors of SWB and that neuroticism is related to unhappiness.

Furthermore, Diener et al. posits that traits, which involve internal reactions such as self-esteem, optimism, and neuroticism, may have a universal relationship with
happiness. To date, research reports TP’s association with these three personality traits, as well as, numerous other personality characteristics. Therefore, future SWB research, which measures multiple dimensions of TP and which includes TP as an independent, dependent, or intervening variable, could be assured of tapping a more diverse range of personality dispositions than may have occurred previously.

Overall, the past temporal perspectives seem to have the most consistent and most emphasized relationship with the outcome measures specifically the Past-Negative TP. The Past-Negative TP appeared to have the strongest negative affect on all measures relevant to SWB relative to the other TPs. These results remained consistent and significant when partial correlations were performed controlling for pessimism. These results further suggest that the presence of these Past-Negative characteristics may have serious implications on individuals’ cognitive-affective states and cognitive judgments independent of pessimism. Thus, Past-Negative TP may unknowingly permeate many areas of a person’s life and carry the potential for harmful consequences on a person’s well-being.

Results also suggest that Past-Negative TP may share outcomes that are similar to those of pessimism; that is, the important key factor in this relationship may not necessarily be the presence of Past-Positive characteristics but the absence of Past-Negative characteristics. This finding may have useful applications in the clinical and counseling disciplines of psychology and is in line with cognitive theories of psychology. Fordyce (as cited in Diener, 1984) offers evidence that making conscious attempts to reduce negative thoughts can increase happiness.
Therefore, psychologists and counselors may want to concentrate their efforts on challenging cognitive distortions and on enhancing cognitive reinterpretations of past events and experiences of their clients prior to assisting these individuals with building a more pleasant present and future perspective. This cognitive restructuring of the past may provide the necessary foundation for the emergence of a Past-Positive TP in these individuals that may in turn provide more stability and more security for them as they face life in the present and future. Future pursuit of these suppositions could prove instructive in future studies on TP and SWB. Furthermore, Diener et al. (1984) reports that cognitive approaches to happiness are in their infancy and suggests that an interactional approach could be developed that integrates the influence of external events and the influence of personality. TP, as measured by the ZTPI, could be used as one means of providing a more concise composite measure of this interaction in future research studies on happiness.

The results also imply that Past-Negative characteristics are even more detrimental to happiness and SWB than Present-Fatalistic characteristics. This finding might be interpreted as showing that having a present perspective, even a negative one, is more beneficial than maintaining a negative past perspective. Perhaps, building on a negative foundation as in Past-Negative TP has more pervasive affects on a person's personality development and quality of life than does presently feeling as though one is helpless and hopeless. Furthermore, the Present-Fatalistic temporal frame may be a more transient state as suggested by the inverse relationship between the present TP and age, whereas Past-Negative
TP may encompass a more enduring set of characteristics. Two propositions are offered to support the transient hypothesis concerning Present-Fatalistic TP. First, Present-Fatalistic characteristics may weaken as individuals gain personal autonomy, which may be a function of age or maturity. Second, individuals may not receive as much consistent reinforcement for their Present-Fatalistic TP as opposed to their Past-Negative TP. Mere exposure to more positive daily life events and circumstances than negative experiences may eventually alter the views of the Present-Fatalistic individual, whereas altering the views of Past-Negative individuals may require more persistence and a more drastic change in cognition. Although research suggests that affective conditioning can be extremely resistant to extinction, research also suggests that people can give conscious direction to the affective associations in their lives (Diener, 1984).

Present-Fatalistic characteristics may also be more situationally dependent than Past-Negative characteristics and may be a function of judgments of control. Clements (as cited in Kapci & Cramer, 1999) has reported that negative or low control judgments were associated with depression while positive or high control judgments were associated with the absence of depressive symptom. Therefore, low perceived personal control may propel individuals toward feelings of helplessness and hopelessness and other Present-Fatalistic characteristics. However, according to learned helplessness and hopelessness theories of depression, Present-Fatalistic characteristics may result from the socialization process of some individuals and may develop into more stable personality traits that are more consistent across situations. This latter view is believed to equate
Present-Fatalistic TP more closely with Past-Negative TP and causes resurgence in the controversy over whether TP is a stable personality disposition or a cognitive schema. Future research on TP using a multidimensional and multileveled instrument such as the ZTPI could provide more insight into this controversy by capturing a broader range of influential components and personality variables than was studied in the past. Lastly, however, the likelihood seems high that individuals who espouse Past-Negative characteristics may also embrace Present-Fatalistic qualities and that Past-Negative may be the beginning foundation for the Present-Hedonistic TP. Further exploration of this relationship could provide an enlightening avenue for future research on depression and suicide.

The discovery that TP had strong and unique predictive power with regard to SWB supports what Lennings (2000a) termed the “strong model.” In this model, TP exerts a direct effect on the outcome variable as opposed to a subtler and more indirect effect as in the “weak model.” Therefore, these results demonstrate that TP is a meaningful and worthwhile variable to include in future studies on SWB. These results also can be interpreted as providing further support for the proposed cognitive, motivational, affective, and social underpinnings inherent within TP and for the purported dynamic influence TP has on individuals’ judgments, decisions, and actions due to their relationship with both the cognitive-affective and cognitive-judgmental components of SWB. Furthermore, these results suggest that including TP in future studies on SWB could enhance researchers’ understanding of the relationship between personal
styles of reporting, interpreting, and responding to events and experiences and SWB. Diener et al. (1999) suggest three avenues to pursue in future research on SWB. First, researchers should take the Person X situation interactions into account. Second, researchers should strive to understand the processes underlying adaptation. Third, SWB theories need to be refined in order to allow for specific predictions about how input variables differentially influence the components of SWB. The results of this study indicate that future studies including TP as a variable could assist in answering all three of these propositions as postulated by Deiner et al. (1999), as well as other propositions that remain unstated.

The moderating affect of realism is inconsistent across the TPs. However, evidence of a moderating effect is demonstrated for realism mainly on Past-Positive TP and not across all TPs. These results may indicate that realism has a more moderating affect on pessimism and optimism than on TP but to a limited degree. This interaction, which is idiosyncratic for each TP, seems to be true for other TPs as well, although not significantly and is especially instructive considering that originally only the Future TP was significantly correlated with the Reality Scale. However, the number of individuals who espoused two simultaneous dispositions (e.g., optimism and realism or pessimism and realism) was not taken into account and doing so could prove useful in future research. Additionally, without these analyses being conducted with the LOT-R partitioned into optimism and pessimism the interpretation of this relationship becomes less clear as to whether realism may be moderating both optimism and pessimism or
just one of the two dispositions. Future research studies investigating the effect of
realism on TP and optimism and pessimism are needed to clarify this relationship.

This study contains many limitations and, therefore, these results must be
interpreted cautiously. First, this study is an observational study based on self-
report measures of TP, dispositional style, and happiness or SWB conducted at one
point in time. Diener et al. (1999) suggests that considering self-report measures
may be subject to distortions and omissions, researchers should attempt to assess
the impact of artifacts such as impression management when possible. The
researcher's selection of assessment instruments utilized in this study can only be
assumed to have minimized these artifacts. Second, all results are correlational
and therefore, no directionality can be assumed. More sophisticated research
designs and methods of assessment that allow for causal attributions could benefit
future research studies on TP and SWB. Third, all data were collected only two
weeks following the nation's worst terrorist attack on our soil (e.g., the terrorist
attack on the World Trade Center), the affects of which are immeasurable at this
time; however, one must assume that the aftereffects could be substantial. This
comment seems especially necessary considering that Schwarz and Clore (as cited
in Diener, 1984) were able to find evidence that momentary affective states (e.g.,
those produced by the weather) influence happiness and life satisfaction
judgments. Likewise, Headey and Wearing (1989) found that while unusually
favorable life events enhance SWB, unusually adverse events depress SWB.
Although, Diener et al. (1999) emphasizes that while events and situations
naturally influence emotions and feelings associated with well-being, individual
aggregate levels of emotion tend to be more stable and more reliable.

Longitudinal studies examining the relationship between TP, personality, and SWB could shed new light on the stability of SWB. Results of this study did, however, indicate that overall the students in this sample population reported rates of satisfaction with life and of happiness that were in line with levels that have consistently been seen in research in the past (i.e., moderate positive levels) (see Diener et al, 1995; Lyubomirsky, 2001). These results may be partially a function of the chosen Depression-Happiness instrument that was used which is postulated as being a measure of dispositional happiness. After all, Diener et al. (1999) propose that SWB has properties of being a disposition through the strong relationship SWB consistently maintains with personality.

Likewise, the skewedness of the population toward pessimism may have altered or intensified the results in favor of Past-Negative and Present-Fatalistic TPs. Furthermore, the Reality Scale developed for this study has no demonstrated reliability or discriminant validity and, thus, may not truly measure realism or all components of realism. However, the failure of realism to correlate with any of the LOT-R scores in this study is especially instructive. These results seem to suggest that realistic dispositional style, as measured by this scale, was evidenced among the participants and was found to be independent of both optimism and pessimism. Therefore, realism may be a viable construct in addition to optimism and pessimism. However, the questions remains as to whether this Reality Scale really measured dispositional realism or merely realistic tendencies, realistic thinking, or simply aspects of pragmatic action. In addition, the effect that the
inclusion of the Reality Scale may have had on the LOT-R can not be fully assessed at this time. Schwartz and Strack (as cited in Diener et al., 1999) reported that SWB values may change depending on the type of scale used, the order of items, and the time frame of the questions. Therefore, one may question whether any alterations in the LOT-R in item sequencing or by the inclusion of additional items may have similar affects. Hence, the Reality Scale may have unduly influenced the responses of the participants resulting in the incorrect categorization of students by disposition. Future research could benefit from studies exploring the validity of realism as a dispositional style and from the development of a reliable and concise instrument to measure realism. Difficulties emerge here due to previous research studies using realism mainly as a qualifier of such constructs as optimism and pessimism and not as an independent construct. Thus, to date, research has mainly investigated whether optimists or pessimists maintain the more realistic view (Schweizer & Beck-Seyffer, 1999). Benefits to future research could also result from studies, which attempt to extract the differences between pragmatic action and realism from such concepts as future TP.

The notation must be made that numerous other variables have demonstrated associations with both optimism and pessimism and happiness or SWB that remain largely unaccounted for in this current research study. Future research could prove beneficial for studies, which include such personality characteristics such as neuroticism, self-esteem, and personal efficacy and emotional connectedness in the relationship between personality, TP, and SWB.
Likewise, Headey and Wearing (1989) suggest that other variables, in addition to personality variables, are important components of SWB including demographic variables, social networks, and life events and, therefore, should be included in a more comprehensive model of SWB. Furthermore, Diener et al. (1999) conclude that the complex interaction between culture, personality, cognitions, goals and resources, and the objective environment with SWB must be more fully understood. These are all components, too, which could influence or are potentially affected by TP characteristics. Therefore, conducting more in depth research investigations of both TP and SWB and their dynamic relationship with each other could open many diverse avenues for future SWB research and for research in personality. For example, future research concerning TP and coping mechanisms or behaviors and adaptation levels may prove informative as regards their relationship with happiness and SWB and may provide useful applications in the clinical and counseling fields of psychology. Lastly, future research replicating the existence of an optimal temporal profile with regard to SWB could lend further credibility to these findings. Exploring the prevalence or absence of this profile in a more diverse population could also prove especially instructive.
References


Questionnaire in an employed adult sample. *Psychological Reports*, 76, 137-138.


Appendix A

Zimbardo Time Perspective Inventory (ZTPI)

Read each of the 56 items below and, as honestly as you can, answer the following question: "How characteristic or true is this of you?" Please answer according to the following response scale:

1 - Very Uncharacteristic
2 - Uncharacteristic
3 - Neutral
4 - Characteristic
5 - Very Characteristic

1. I believe that getting together with one's friends to party is one of life's important pleasures.
2. Familiar childhood sights, sounds, smells often bring back a flood of wonderful memories.
3. Fate determines much of my life.
4. I often think of what I should have done differently in my life.
5. My decisions are mostly influenced by people and things around me.
6. I believe that a person's day should be planned ahead each morning.
7. It gives me pleasure to think about my past.
8. I do things impulsively.
9. If things don't get done on time, I don't worry about it.
10. When I want to achieve something, I set goals and consider specific means for reaching those goals.
11. On balance, there is much more good to recall than bad in my past.
12. When listening to my favorite music, I often lose all track of time.
13. Meeting tomorrow's deadlines and doing other necessary work comes before tonight's party.
14. Since whatever will be will be, it doesn't matter what I do.
15. I enjoy stories about how things used to be in the "good old times".
16. Painful past experiences keep being replayed in my mind.
17. I try to live my life as fully as possible, one day at a time.
18. It upsets me to be late for appointments.
19. Ideally, I would live each day as if it were my last.
20. Happy memories of good times spring readily to mind.
21. I meet my obligations to friends and authorities on time.
22. I've taken my share of abuse and rejection in the past.
23. I make decisions on the spur of the moment.
24. I take each day as it is rather than try to plan it out.
25. The past has too many unpleasant memories that I prefer not to think about.
26. It is important to put excitement in my life.
27. I've made mistakes in the past that I wish I could undo.
28. I feel that it's more important to enjoy what you're doing than to get work done on time.
29. I get nostalgic about my childhood.
30. Before making a decision, I weigh the costs against the benefits.
31. Taking risks keeps my life from becoming boring.
32. It is more important for me to enjoy life's journey than to focus only on the destination.
33. Things rarely work out as I expected.
34. It's hard for me to forget unpleasant images of my youth.
35. It takes joy out of the process and flow of my activities, if I have to think about goals, outcomes, and products.
36. Even when I am enjoying the present, I am drawn back to comparisons with similar past experiences.
37. You can't really plan for the future because things change so much.
38. My life path is controlled by forces I cannot influence.
39. It doesn't make sense to worry about the future, since there is nothing that I can do about it anyway.
40. I complete projects on time by making steady progress.
41. I find myself tuning out when family members talk about the way things used to be.
42. I take risks to put excitement in my life.
43. I make lists of things to do.
44. I often follow my heart more than my head.
45. I am able to resist temptations when I know there is work to be done.
46. I find myself getting swept up in the excitement of the moment.
47. Life today is too complicated: I would prefer the simpler life of the past.
48. I prefer friends who are spontaneous rather than predictable.
49. I like family rituals and traditions that are regularly repeated.
50. I think about the bad times that have happened to me in the past.
51. I keep working at difficult, uninteresting tasks if they will help me get ahead.
52. Spending what I earn on pleasures today is better than security.
53. Often luck pays off better than hard work.
54. I think about the good times that I have missed out on in my life.
55. I like my close relationships to be passionate.
56. There will always be time to catch up on my work.
Appendix B

Life Orientation Test-Revised (LOT-R)*

Read the following items and indicate, by circling the corresponding number, the extent of your agreement with each of the items according to the scale provided. Try to be as accurate and honest as you can and try not to let your answers to one question influence your answers to other questions. There are no right or wrong answers.

0 – Strongly Disagree
1 – Disagree
2 – Neutral
3 – Agree
4 – Strongly Agree

1. In uncertain times, I usually expect the best. 0 1 2 3 4
2. If something can go wrong for me, it will. 0 1 2 3 4
3. I’m always optimistic about my future. 0 1 2 3 4
4. I hardly ever expect things to go my way. 0 1 2 3 4
5. I rarely count on good things happening to me. 0 1 2 3 4
6. Overall, I expect more good things to happen than bad. 0 1 2 3 4

* Filler items are not included.
Appendix C

The Reality Scale

Read the following items and indicate, by circling the corresponding number, the extent of your agreement with each of the items according to the scale provided. Try to be as accurate and honest as you can and try not to let your answers to one question influence your answers to other questions. There are no right or wrong answers.

0 – Strongly Disagree
1 – Disagree
2 – Neutral
3 – Agree
4 – Strongly Agree

1. I often expect both good and bad things in life. 0 1 2 3 4
2. * I like to see things as they really are. 0 1 2 3 4
3. * I am usually pragmatic or realistic about things. 0 1 2 3 4
4. It’s important to be accurate when I judge my abilities. 0 1 2 3 4
5. I set realistic goals for myself, they are neither too high nor too low. 0 1 2 3 4

* Items retained for analysis.
Appendix D

The Satisfaction with Life Scale (SWLS)

Below are five statements, with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

The 7-point scale is:

1 – Strongly Disagree
2 – Disagree
3 – Slightly Disagree
4 – Neither Agree nor Disagree
5 – Slightly Agree
6 – Agree
7 – Strongly Agree

_______ 1. In most ways my life is close to my ideal.

_______ 2. The conditions of my life are excellent.

_______ 3. I am satisfied with my life.

_______ 4. So far I have gotten the important things I want in life.

_______ 5. If I could live my life over, I would change almost nothing.
Appendix E

The Depression-Happiness Scale

A number of statements that people have used to describe how they feel are given below. Read each one and circle the number that best describes how frequently each statement was true for you in the past seven days, including today. Some statements describe positive feelings and some describe negative feelings. You may have experienced both positive and negative feelings at different times in the past week.

Answer according to the following scale:

0 – Never
1 – Rarely
2 – Sometimes
3 – Often

1. I felt sad. 0 1 2 3
2. I felt I had failed as a person. 0 1 2 3
3. I felt dissatisfied with my life. 0 1 2 3
4. I felt mentally alert. 0 1 2 3
5. I felt disappointed with myself. 0 1 2 3
6. I felt cheerful. 0 1 2 3
7. I felt life wasn’t worth living. 0 1 2 3
8. I felt satisfied with my life. 0 1 2 3
9. I felt healthy. 0 1 2 3
10. I felt like crying. 0 1 2 3
11. I felt I had been successful. 0 1 2 3
12. I felt happy. 0 1 2 3
13. I felt I couldn’t make decisions. 0 1 2 3
14. I felt unattractive. 0 1 2 3
15. I felt optimistic about the future. 0 1 2 3
16. I felt life was rewarding. 0 1 2 3
17. I felt cheerless. 0 1 2 3
18. I felt life had a purpose. 0 1 2 3
19. I felt too tired to do anything. 0 1 2 3
20. I felt pleased with the way I am. 0 1 2 3
21. I felt lethargic. 0 1 2 3
22. I found it easy to make decisions. 0 1 2 3
23. I felt life was enjoyable. 0 1 2 3
24. I felt life was meaningless. 0 1 2 3
25. I felt run down. 0 1 2 3
Table 1

*Correlations Between Zimbardo Time Perspective Inventory (ZTPI), Satisfaction with Life Scale (SWLS), Depression-Happiness Scale, Subjective Well-being (SWB), and Life Orientation Test-Revised (LOT-R).*

<table>
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<th>Scales</th>
<th>Past-Negative</th>
<th>Present-Hedonistic</th>
<th>Future</th>
<th>Past-Positive</th>
<th>Present-Fatalistic</th>
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<tr>
<td>1. SWLS</td>
<td>-.43**</td>
<td>.17*</td>
<td></td>
<td>.46**</td>
<td></td>
</tr>
<tr>
<td>2. Depression-Happiness Scale</td>
<td>-.51**</td>
<td>.14*</td>
<td>.36**</td>
<td>-.24**</td>
<td></td>
</tr>
<tr>
<td>3. SWB</td>
<td>-.53**</td>
<td>.15*</td>
<td>.46**</td>
<td>-.19**</td>
<td></td>
</tr>
<tr>
<td>4. LOT-R</td>
<td>-.52**</td>
<td>.41**</td>
<td>-.26**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Optimism</td>
<td>-.38**</td>
<td>.30**</td>
<td>-.19**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Pessimism</td>
<td>.40**</td>
<td>-.16*</td>
<td>-.33**</td>
<td>.17**</td>
<td></td>
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</table>

* p > .05. ** p > .01.
Table 2

*Summary of Hierarchical Linear Regression Analysis for Time Perspectives (TP)*

Predicting Subjective Well-being (SWB) (N = 225)

<table>
<thead>
<tr>
<th>Time Perspective</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
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<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Past-Negative</td>
<td>-.54</td>
<td>.08</td>
<td>-.43***</td>
</tr>
<tr>
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<td>.49</td>
<td>.11</td>
<td>.28***</td>
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<td>.29</td>
<td>.09</td>
<td>.20***</td>
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<tr>
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<td>.10</td>
<td>.20***</td>
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<td>.10</td>
<td>-.14*</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
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<tr>
<td>LOT-R</td>
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</table>

Note. R Square = .41 for Step 1; R Square = .49 for Step 2; R Square Change = .08 for Step 2 (ps < .001)

* p < .05.  **p < .01.  ***p < .001.