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The time perspective of financial advisors and its effect on their decision-making

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Abstract

Psychological research suggests individuals often display past, present, or future time perspective (TP) biases that impact decision-making. This article examines the TP biases of financial advisors from different backgrounds and whether or not the biases impact client recommendations. Consistent with literature that suggests a link between TP and career choice, advisors are future oriented as a group, regardless of their professional background. However, contrary to prior TP research, the bias does not appear to impact their professional decisions. Instead, the findings are consistent with research that demonstrates psychological biases are mitigated when professional decision makers perform job related tasks.

JEL Classification: D8, D9, D14

Keywords: Time perspective; Time orientation; Financial advisors; Financial decision making; Personal financial planning, Career choice

Researchers have noted that today's complex financial and economic environment fuels an increasing need for personal financial services and those in need of such services commonly turn to a personal financial advisor for advice (Trahan, Gitman, and Trevino, 2012). This is consistent with research that finds 21.8 million U.S households have sought some type of advice from professional financial advisors (Elmerick, Montalto, and Fox, 2002). Growth in the financial planning profession and the increased use of financial advisors in the United States has been linked to increasing life expectancies, earlier retirements, increases in the eligibility age for social security benefits, and rampant financial illiteracy in the general

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population (Warschauer, 2002). Although the profession has seen significant growth, research on financial planning and financial planning professionals has been lacking, and academics have called for more research in this area (Black, Ciccotello, and Skipper, 2002). I examine the time perspective of professional financial planners and its impact on the advice they give to clients.

Psychological research has found that individuals often display a bias toward a particular temporal frame of reference when making decisions. In other words, decision makers exhibit time perspective (TP) biases by focusing on the past, present, or future features of a particular decision (D'Alessio, Guarino, De Pascalis, and Zimbardo, 2003; Nuttin, 1985; Zimbardo and Boyd, 1999). Individuals with a strong present TP are more likely to focus on short-term goals and the immediate benefits of current actions. In contrast, people with a strong future TP are more likely to focus on long-term goals and the future consequences of current actions.

The TP literature suggests that there may be a link between an individual's TP and their career choice whereby individuals working in a profession that is more future (present) oriented may exhibit a future (present) TP bias (Gonzalez and Zimbardo, 1985). Personal financial planning is a very forward oriented profession because it focuses on helping clients financially plan for future events in their lives. Thus, professional financial advisors may be future oriented as a group. However, the profession is made up of a diverse group of advisors working in different types of firms (e.g., accounting, insurance, investment, etc.), including some career changers originally from nonfinancial backgrounds. If these advisors are not uniformly future oriented as a group, then it is possible that their TP may vary in accordance with their professional background. In either case, their TP may affect the recommendations they make to clients.

An abundance of psychology research demonstrates that TP can affect decision-making in a variety of personal decision-making contexts, including some limited research related to financial choices. Personal financial planning (PFP) provides an appropriate setting to study TP among financial professionals because PFP decisions naturally involve trade-offs between more future oriented and more present oriented options. The results of prior research suggest TP will affect PFP decisions. However, there is a lack of research examining the impact of TP on professional decision-making and other psychological research suggests its impact may be mitigated in a professional decision-making context. According to that research, individual characteristics may be less important than task characteristics in complex decision scenarios (e.g., Beach and Mitchell, 1978; Chervany and Dickson, 1978; Huber, 1983; Payne, 1982; Payne, Bettman, and Johnson, 1992), and the impact of psychological biases is lessened when professional decision makers perform job-related tasks (see Smith and Kida, 1991, for a review). Thus, TP may not be as influential in professional decision-making contexts as in personal contexts. However, if individual TP biases do impact professional decision-making, then dysfunctional consequences may arise. For example, if a financial planner is biased toward recommending a more future oriented strategy because the advisor has a strong future TP, then he or she may not be effective in helping clients achieve important shorter term financial goals.

I investigate the TP biases that exist among professional financial planners, whether there is a relationship between their professional background (e.g., accounting, insurance, securities, etc.) and their TP, and the extent to which TP biases impact the recommendations they

make to clients. While there are some limited exceptions, the results generally show that the financial advisors are future oriented as a group, there is no significant relationship between their professional background and their TP, and there is no significant relationship between their TP and the recommendations they make to clients. The next section presents a literature review and hypotheses followed by the method section, a discussion of the results, and concluding remarks.

2. Literature review and hypotheses

2.1. Impact of TP on behavior

Psychological theory suggests individuals develop time perspectives from cognitive processes that partition experiences into past, present, and future temporal frames (D'Alessio et al., 2003; Nuttin, 1985; Zimbardo and Boyd, 1999). When a strong orientation toward one of these time frames exists, it serves as a cognitive bias or an individual-differences variable that affects judgment and decision-making (Zimbardo & Boyd, 1999). This bias is generally referred to in the literature as "time perspective" or "time orientation." An individual with a strong present orientation will tend to focus on more current features of decision alternatives, such as their convenience and the immediate benefits they provide (Strathman, Gleicher, Boninger, and Edwards, 1994; Zimbardo and Boyd, 1999). In contrast, a person with a strong future TP focuses more on potential long-term outcomes and is willing to sacrifice current rewards in order to obtain some desirable future state (Boniwell and Zimbardo, 2004; Strathman et al., 1994; Trommsdorff, 1983; Zimbardo and Boyd, 1999).

Numerous studies have found significant relationships between TP and behavior in a variety of situations. For example, research has demonstrated that higher levels of alcohol, drug, and cigarette consumption are predicted by a stronger present orientation, while lower levels of substance usage are predicted by a stronger future orientation (e.g., Henson, Carey, Carey, and Maisto, 2006; Keough, Zimbardo, and Boyd, 1999). Studies have also found a similar type of relationship between TP and other socially unacceptable behaviors, such as youth delinquency (e.g., Cauffman, Steinberg, and Piquero, 2005; Modecki, 2008), risky driving (e.g., Zimbardo, Keough, and Boyd, 1997), risky sexual practices (e.g., Dorr, Krueckeberg, Strathman, and Wood, 1999; Rothspan and Read, 1996), and pathological gambling (e.g., MacKillop, Anderson, Castelda, Mattson, and Donovick, 2006; Toplak, Liu, MacPherson, Toneatto, and Stanovich, 2007). In addition, TP has been linked to academic achievement (e.g., Adelabu, 2007; Joireman, 1999), environmental attitudes and behaviors (e.g., Corral-Verdugo and Pinheiro, 2006; Joireman, Van Lange, and Van Vugt, 2004), and individual health practices (e.g., Orbell and Hagger, 2006; Ouellette, Hessling, Gibbons, Reis-Bergan, and Gerrard, 2005).

Research has generally found that individuals with a strong future TP focus on the achievement of future goals and abstract features such as the desirability of future states resulting from their decisions (Boniwell and Zimbardo, 2004; D'Alessio et al., 2003; Strathman et al., 1994; Zimbardo and Boyd, 1999). In contrast, individuals with a more current orientation tend to be influenced by concrete features of decision alternatives,

such as convenience and other more immediate benefits (Strathman et al., 1994; Zimbardo and Boyd, 1999). Strathman, Gleicher, Boninger, and Edwards (1994) demonstrate this behavior in an oil drilling decision case that involves trade-offs between present and future benefits. Their results indicate that participants with a strong future TP are more likely to favor offshore drilling when the disadvantages are presented as immediate and the advantages are presented as distant. However, those with a more present orientation are more convinced of the benefits of drilling when the advantages are immediate and the disadvantages are distant.

In a personal finance context, Joireman, Sprott, and Spangenberg (2005) demonstrate similar behavior when marketing students are asked how they would prefer to invest money received from a hypothetical windfall. More future oriented respondents tend to choose the options with longer-term benefits (i.e., paying down credit card debt or putting it into savings to cover college expenses), while the more present oriented generally prefer the options with short-term benefits (i.e., purchasing an item online that is temporarily on sale or going on a trip with friends). There is also research finding that future TP is associated with higher levels of perceived financial planning knowledge, retirement involvement, willingness to invest in a 401(k) plan, and a more aggressive retirement savings profile (Hershey and Mowen, 2000; Howlett, Kees, and Kemp, 2008; Jacobs-Lawson and Hershey, 2005). Thus, there is a large amount of literature demonstrating the significant impact of TP on behavior in a variety of different settings, including personal finance.

2.2. Relationship between TP and occupation

I am aware of only one study to date that has explored the relationship between TP and occupation. Gonzalez and Zimbardo (1985) collected data from a sample of over 11,000 Psychology Today readers that completed the Stanford Time Perspective Inventory (STPI), an earlier version of the Zimbardo Time Perspective Inventory (ZTPI). The results indicate that different types of jobs are associated with different TPs. For example, students and a group of workers classified as "semiskilled /unskilled" tend to display stronger present orientations and weaker future orientations. In contrast, teachers, professionals, managers, and white collar workers are more likely to exhibit a strong orientation toward at least one dimension of future TP. Based on these findings, Gonazlez and Zimbardo (1985, p. 26) conclude, "It seems likely that two processes are at work here. Individuals select certain occupations because they already have the time orientation called for. Once in the job, success and satisfaction depend on intensifying the orientation further." Since personal financial planning is a very forward looking profession, it seems plausible that such a career would attract and retain more future oriented individuals. Therefore, I propose the following hypothesis:

Hypothesis 1: Professional financial planners are generally future oriented as a group.

2.3. Relationship between professional background and TP

While financial planners may be future oriented as a group, they come from a number of different professional backgrounds (e.g., accounting, investment, insurance, etc.) and it is

possible that they display different time perspective biases related to their different professional backgrounds. For example, a tax accountant or an Enrolled Agent who spends most of their time working on the preparation of historical tax returns and planning for the short-term (i.e., upcoming months), may be less future oriented than other planners. This notion appears to be supported by practitioner literature which suggests that while CPAs have a number of strengths to draw upon when entering the field of PFP (e.g., technical knowledge, quantitative skills, and analytical abilities), they may also have difficulty with helping individuals plan for the long-term (AICPA, 2005; O'Reilly, 2000; Wolosky, 2005). In contrast, a seasoned estate planning attorney or life insurance advisor, primarily working with clients on long-term issues that span a lifetime, may be more future oriented. If different TP biases are associated with professional experience, then there are important implications for financial professionals of various backgrounds practicing within the same field. Therefore, my second hypothesis is as follows:

Hypothesis 2: Financial planning practitioners from different backgrounds (e.g., accounting, insurance, investment) will exhibit different levels of future and present TP.

2.4. Impact of TP on financial planning decisions

An important question is whether TP biases affect professional financial planners' judgment and decision-making, and ultimately, their recommendations to clients. As previously noted, there is a large body of research that demonstrates the impact of TP on behavior in a wide variety of personal decision-making contexts. In financial planning, a choice must often be made between a planning strategy that provides more current rewards to the client and a strategy that results in more long-term benefits. The TP research suggests that planners with a more present (future) orientation would be more likely to recommend the strategy with more current (long-term) benefits. However, that research has not examined professional decision makers performing job related tasks. Other psychology research indicates that task characteristics can mitigate the importance of individual characteristics (e.g., Beach and Mitchell, 1978; Chervany and Dickson, 1978; Huber, 1983; Payne, 1982; Payne et al., 1992), and that judgment biases may be reduced in settings where experienced decision makers perform tasks for which they have significant knowledge and familiarity (Berkeley and Humphreys, 1982; Ebbesen and Konecni, 1980; Edwards, 1983; Einhorn, 1976; Fischoff, 1982, 1987; Funder, 1987; Hogarth, 1981; Kida, Moreno, and Smith, 2010; Smith and Kida, 1991). For example, Smith and Kida (1991) review the research on professional auditor judgments and find that a number of heuristics and biases shown to affect judgment in prior research are often mitigated or modified in contexts where expert decision makers perform familiar tasks. Thus, it seems unlikely that TP biases would significantly impact the decision-making of financial advisors performing realistic job related tasks. Therefore, my third hypothesis is as follows:

Hypothesis 3: Individual TP biases will not affect the financial planning recommendations made by professional financial advisors.

3. Method

3.1. Participants

To ensure that the participants were experienced professionals qualified to provide comprehensive personal financial planning services, only Certified Financial Planners (CFP®) were used in the study. In order to earn and maintain the CFP® credential, a financial advisor must meet minimum education requirements, pass the comprehensive CFP® Certification Examination, meet a minimum experience requirement, abide by the CFP® Board's *Code of Ethics and Professional Responsibility and Rules of Conduct*, and comply with the *Financial Planning Practice Standards* (Certified Financial Planner Board of Standards, 2015).

I used data previously collected by Ryack (2012). The sample includes 127 CFP® certificants that completed an online instrument. Names of CFP® certificants were obtained through internet searches and through referrals from officers of various Financial Planning Association branches. Contact was initially made with approximately 210 CFP® certificants. The link to the online instrument was emailed to 180 qualified advisors who agreed to participate after 22 declined to participate and an additional nine were determined to be unqualified because they were not actively engaged in providing financial planning services. Of that group, 136 planners actually logged on to complete the instrument and nine of them were excluded because their responses were only partially complete.

The participants came from 17 states where, according to CFP® Board statistics, roughly 75% of all CFP® certificants were registered at the time the study commenced (Certified Financial Planner Board of Standards, 2006). As shown in Table 1, the participants included 98 (77.2%) men and 29 (22.8%) women. This is consistent with the population of men (76.5%) and women (23.4%) holding CFP® certifications at the time the data were collected (Certified Financial Planner Board of Standards, 2006). Their mean age was approximately 46 years old and they had an average of approximately 11 years of experience as a financial planner. The sample included 19 planners from accounting firms, 18 from insurance firms, 32 from securities firms, and 58 from general financial planning firms. The number of respondents from the various backgrounds was not equal because it was often difficult to determine the type of firm a person worked for before making contact and there was no way to predict actual response rates.

3.2. Instrument

Participants completed a three part online instrument. The first part included four short PFP cases that were created with the assistance of a former Chair of the (CFP®) Board Examinations Committee and were reviewed by three expert planners. The cases were also revised after reviewing the results of a pretest with planners from different backgrounds who were solicited in the same manner as the study's participants. Each case contained background information on a client and two alternative planning strategies. The three expert planners that reviewed the instrument before pretesting agreed that for all the cases, one strategy provided more current benefits whereas the other strategy had more long-term

Table 1 Demographic statistics of the financial advisors

Variable		*N*	%
Age (in years)			
Range	26–67		
Mean	46.2		
Median	47.0		
Gender			
Male		98	77.2%
Female		29	22.8%
Highest degree held			
Associate		2	1.6%
Bachelor		61	48.0%
Masters		47	37.0%
JD		14	11.0%
No response		3	2.4%
Type of firm employed at			
Accounting		19	15.0%
Insurance		18	14.2%
Securities		32	25.2%
General PFP		58	45.6%
Experience as a financial planner (in years)			
Range	1–29		
Mean	10.9		
Median	9.0		
Certifications and licenses held			
CFA		1	0.8%
CFP		127	100.0%
CFS		2	1.6%
ChFC		26	20.5%
CIMA		5	3.9%
CLU		22	17.3%
CPA license		37	29.1%
LUTFC		10	7.9%
PFS		19	15.0%
Real estate license		5	3.9%
RIA/RIA Rep		52	40.9%
Series 6 license		39	30.7%
Series 7 license		80	63.0%
Series 22,23 license		10	7.9%
Series 63,64 license		70	55.1%

benefits. The experts further agreed that these differences were easily identifiable as current versus long-term in each of the cases.

After reading each case, the study participants were asked to respond to a six-point scale that indicated his or her preference for one of the alternatives as well as their degree of preference. Scale responses one through three indicated a preference for the first alternative (1 = strong preference, 2 = moderate preference, 3 = slight preference), while four through six indicated a preference for the second alternative (4 = slight preference, 5 = moderate preference, 6 = strong preference). The cases were used specifically to test Hypothesis 3 and they assessed the financial advisors' decisions across a number of contexts often encountered in financial planning. Various scenarios were presented that reflected multiple decision

contexts and integrated several PFP subject areas, including cash flow analysis/planning, investment planning, income tax planning, education planning, retirement planning, and estate planning. The cases are presented in Appendix A.

The second part of the instrument consisted of 30 items used to determine the TP of the financial advisors. For each item, the planner was asked to rate how characteristic the statement was of him or her on an eight point scale ranging from extremely typical to slightly typical at one end of the scale and slightly atypical to extremely atypical on the other end of the scale. Twelve items were a reproduction of all the items used in the Consideration of Future Consequences (CFC) scale (Strathman et al., 1994) and eighteen items were selected from the Present Hedonistic scale and the Future scale contained in the Zimbardo Time Perspective Inventory (ZTPI) (Zimbardo and Boyd, 1999). Both scales were designed based on extensive factor analyses. The CFC scale is a one factor scale containing 12 items and it essentially measures TP on a continuum with present TP on one end and future TP on the other end. The ZTPI contains 56 items that were found to load on five distinct TP factors; Past-Negative, Past-Positive, Present-Fatalistic, Present-Hedonistic, and Future. In other words, each factor makes up its own scale that measures a unique and distinct aspect of TP. It has been common for researchers to incorporate only the relevant ZTPI scales that measure the TP dimension of interest for their particular study. Consistent with Ryack (2012), I exclude items from the ZTPI that measure Present-Fatalistic, Past-Positive and Past-Negative orientations because these factors have been shown to be associated with attitudes and behaviors that are either not relevant to this study, or unlikely to be found among professional financial planners.[1] The Future factor is characterized by planning for and achievement of future goals, while the Present-Hedonistic factor reflects an orientation toward present enjoyment and pleasure with a lack of consideration of future consequences. The scale items incorporated in this study and the Ryack (2012) study include nine of the original ZTPI future scale items that had at least a 0.40 loading in the original factor analyses conducted by Zimbardo and Boyd (1999) and nine of the original ZTPI Present-Hedonistic scale items that had a loading 0.40 or above. Three of the original Present-Hedonistic scale items and four of the original Future scale items were excluded because they either had a negative loading or a loading below 0.40 in the original study by Zimbardo and Boyd (1999). Three additional Present-Hedonistic items that loaded above 0.40 were excluded because they were either inappropriate for professional financial advisors or were redundant with another item. Ryack (2012) tested this configuration of the ZTPI Present and ZTPI Future scales in a confirmatory factor analysis with a college student sample and found that it did not significantly alter scale integrity.

Most studies incorporating the CFC and ZTPI items have used the original scales to measure TP. However, the scales were developed primarily with college student samples and some researchers have suggested the factor structures may vary across different populations (e.g., Mitina and Blinnikova, 2008; Ryack, 2012; Worrell and Mello, 2007). In fact, there have been a number of studies that have tested and found different factor structures for the CFC and ZTPI scale items (Joireman, Balliet, Sprott, Spangenberg, and Schultz, 2008; Joireman, Shaffer, Balliet, and Strathman, 2012; Petrocelli, 2003; Ryack, 2012; Toepoel, 2010). In the Ryack (2012) study, financial planners exhibited multiple present and future factors beyond those measured by the original CFC and ZTPI scales. An exploratory analysis

conducted with the 12 items in the CFC scale resulted in two present factors and two future factors from which four subscales were created (CFC_P1, CFC_P2, CFC_F1, and CFC_F2). The analysis of the nine items from the ZTPI Present-Hedonistic Scale resulted in two present factors from which two subscales were created (Zpres_1 and Zpres_2), while items from the ZTPI Future scale yielded three future factors (Zfut_1, Zfut_2, and Zfut_3). In this study, I measure TP using the 12 scale measures from the Ryack (2012) study. This includes the original one factor CFC scale, the adjusted one factor ZTPI Present-Hedonistic scale, the adjusted one factor ZTPI Future scale, and all the subscales. The subscales are replicated in Appendixes B and C.

In the last part of the instrument, the financial planners completed a demographic questionnaire. The questions solicited background information such as the participant's age, gender, professional background, PFP experience, education, and licenses and designations held.

4. Results and discussion

4.1. TP scoring and scale descriptives

As previously noted, the TP biases of the financial advisors were measured using the original CFC scale, modified versions of the original ZTPI Present-Hedonistic and Future scales, and the nine subscales from the Ryack (2012) study. A planner's score on each scale was calculated as the average of the planner's ratings of each item within the scale, with seven of the items on the original CFC scale requiring reverse scoring. Descriptive statistics for each scale are presented in Table 2. A score of one (extremely typical) to four (slightly typical) indicates that the planner exhibits the TP measured by that scale, while a score of five (slightly atypical) to eight (extremely atypical) implies that the planner is not exhibiting that TP.

In general, the results support Hypothesis 1 and indicate that planners tend to be very future oriented. The mean and median scores for each future scale (ZTPI Future, CFC, Zfut_1, Zfut_2, Zfut_3, CFC_F1, and CFC_F2) are between 1.9 and 2.9, which falls into the very typical to moderately typical range on an eight point scale ranging from very typical to very atypical. Further analysis reveals that approximately 99% of the planners exhibit at least a slight future bias as measured by both the ZTPI Future scale and the CFC scale. On the other future subscales, 90–97% of the planners display at least some future bias, depending on the scale. Except for a slight present orientation on the Zpres_2 scale, the planners do not generally appear to be present oriented. The mean and median scores for the other present scales (ZTPI Present, Zpres_1, CFC_P1, and CFC_P2) range from 4.4 to 6.5, meaning a present orientation is slightly to moderately atypical.

Thus, the results taken as a whole indicate that planners tend to be more future oriented than present oriented. This conclusion is supported by a paired samples *t*-test that shows a significant difference between the advisors' mean scores on the ZTPI Present scale versus the ZTPI Future scale (means: future = 2.47 and present = 4.42, $t = 17.961$, $p < 0.001$). A similar result is found with a paired *t*-test comparing a combined CFC present scale

Table 2 Time perspective scores of financial planners

Scale	Mean	Median	Min	Max	SD
ZTPI Present	4.42	4.44	2.11	6.67	0.95
ZTPI Future	2.47	2.33	1.22	5.00	0.67
CFC	2.90	2.92	1.17	4.58	0.66
Zpres_1	5.10	5.00	2.00	7.25	1.07
Zpres_2	3.78	3.75	1.50	6.75	1.13
Zfut_1	2.68	2.50	1.00	6.50	0.84
Zfut_2	1.93	2.00	1.00	6.00	0.93
Zfut_3	2.54	2.33	1.00	5.33	0.96
CFC_P1	5.97	6.00	2.40	8.00	0.98
CFC_P2	6.35	6.50	3.50	8.00	0.85
CFC_F1	2.81	2.67	1.00	6.67	0.84
CFC_F2	2.88	2.50	1.00	7.00	1.21

The scale measures in this table include the original CFC scale, the modified versions of the original ZTPI Present-Hedonistic and Future scales, and the nine subscales from Ryack (2012). The planners rated each item on an eight point scale (extremely typical to extremely atypical) and their scores for each measure were calculated as the average of the ratings for each item included in that measure. The present items in the original CFC measure are reverse scored. A scale score in the range of 1–4 means the planner is exhibiting the TP measured by that scale (1 = extremely typical, 2 = very typical, 3 = moderately typical, 4 = slightly typical). A score in the range of 5–8 means the planner is not exhibiting the TP measured by that scale (5 = slightly atypical, 6 = moderately atypical, 7 = very atypical, 8 = extremely atypical).

composed of all the CFC present items from the CFC_P1 and CFC_P2 scales to a combined CFC future scale composed of all the CFC future items from the CFC_F1 and CFC_F2 scales (means: future = 2.84 and present = 6.06, $t = 28.150$, $p < 0.001$).

4.2. Testing the relationship between background and TP

The second hypothesis examines the relationship between TP and the professional background of financial planners. To investigate this hypothesis, I conducted a series of univariate analysis of variance (ANOVA) tests for each TP scale using TP score as the dependent variable and firm type as the independent variable (i.e., accounting, insurance, securities, and general financial planning). Only eight planners indicated they worked at some other type of firm. These planners were reclassified based on their answer to a question that asked them to indicate their primary job function. For example, if a planner indicated his or her primary job function was investment advising, then that planner was reclassified as working for a securities firm.

As can be seen in Table 3, out of the 12 tests conducted, only the ZTPI Present scale ($F = 3.195$, $p = 0.026$) and the Zpres_2 scale ($F = 4.540$, $p = 0.005$) appear to be significantly affected by firm type. While a lower score on the ZTPI Present scale indicates a stronger overall present orientation, a lower score on the Zpres_2 scale reflects a stronger desire to maintain the quality of one's present lifestyle and to keep everyday life interesting. Results for the Zpres_1 scale (a measure of spontaneity and impulsiveness) are also marginally significant ($F = 2.317$, $p = 0.079$). Tukey-Kramer post hoc pairwise comparisons conducted for these three scales show that the differences are driven by advisors from the insurance

Table 3 TP scale means (SD) and analysis of variance by firm type

		Accounting (n = 19)	Insurance (n = 18)	Securities (n = 32)	General financial planning (n = 58)	F ratio	p-value
ZTPI Present	Mean (SD)	4.87 (.997)	3.93 (.771)	4.41 (.941)	4.44 (.932)	3.195	.026
ZTPI Future	Mean (SD)	2.44 (.665)	2.43 (.579)	2.48 (.808)	2.48 (.623)	.035	.991
CFC	Mean (SD)	3.03 (.551)	2.81 (.601)	2.96 (.653)	2.86 (.715)	.491	.689
Zpres_1	Mean (SD)	5.53 (1.03)	4.76 (.933)	4.88 (1.06)	5.16 (1.08)	2.317	.079
Zpres_2	Mean (SD)	4.26 (1.25)	3.00 (.879)	3.91 (1.19)	3.80 (1.01)	4.540	.005
Zfut_1	Mean (SD)	2.55 (.784)	2.53 (.630)	2.68 (1.04)	2.76 (.796)	.507	.678
Zfut_2	Mean (SD)	1.92 (.917)	1.67 (.767)	2.03 (.772)	2.00 (1.06)	.619	.604
Zfut_3	Mean (SD)	2.63 (.999)	2.82 (1.16)	2.51 (1.10)	2.45 (.791)	.732	.535
CFC_P1	Mean (SD)	6.00 (.833)	6.18 (.776)	5.78 (1.00)	5.99 (1.07)	.674	.570
CFC_P2	Mean (SD)	6.38 (.663)	6.47 (.835)	6.19 (.922)	6.38 (.869)	.550	.649
CFC_F1	Mean (SD)	3.00 (.667)	3.17 (1.24)	2.67 (.799)	2.72 (.734)	1.964	.123
CFC_F2	Mean (SD)	3.24 (.903)	2.47 (.795)	2.86 (.891)	2.91 (1.21)	1.260	.291

This table shows the results of individual ANOVAs for each TP measure. The advisors' scores on the TP scale served as the dependent variable and their professional background as measured by the type of firm they worked for (i.e., accounting, insurance, securities, or general financial planning) was the independent variable.

firms. The contrasts further indicate a significant difference on the ZTPI Present scale between planners working at insurance firms compared to accounting firms (mean difference = −0.939, p = 0.013). Comparisons for the Zpres_2 scale further reveal a significant difference between planners working in insurance versus accounting (mean difference = −1.263, p = 0.003), insurance versus securities (mean difference = −0.906, p = 0.026), and insurance versus general financial planning firms (mean difference = −0.797, p = 0.036). These results suggest that the advisors from the insurance firms are generally more present oriented than the advisors from the accounting firms. The advisors from the insurance firms also appear to have a stronger desire to maintain the quality of one's present lifestyle and to keep everyday life interesting when compared to the advisors from all the other types of firms. However, there are no differences evident in any of the ZTPI future scale measures or any of the CFC scale measures. In other words, except for the differences found with the advisors from the insurance firms on the ZTPI Present scale and the Zpres_2 scale, there are no significant differences among the planners on any of the other 12 measures.

4.3. The impact of TP on financial planning decisions

The third hypothesis investigates whether or not TP impacts the financial planning recommendations made by the financial advisors. Four different personal financial planning cases were used to test this question (see Appendix A). For each case, the planner reviewed two alternative planning strategies and then indicated his or her preference on a six-point scale, where one through three indicated a strong to slight preference for Option A and four through six indicated a slight to strong preference for Option B. I analyzed the impact of TP on the advisors' recommendations using separate regressions for each case and each TP scale

Table 4 Linear regressions of TP measure on Case 1 score (n = 127, mean case score = 3.11)

Dependent variable	Standardized β coefficient	t-stat	p-value	R^2
ZTPI Present	−0.074	−0.827	0.410	0.005
ZTPI Future	−0.073	−0.819	0.414	0.005
CFC	0.051	0.567	0.572	0.003
Zpres_1	−0.086	−0.964	0.337	0.007
Zpres_2	−0.047	−0.529	0.597	0.002
Zfut_1	−0.112	−1.265	0.208	0.013
Zfut_2	0.036	0.399	0.690	0.001
Zfut_3	−0.044	−0.498	0.620	0.002
CFC_P1	−0.062	−0.689	0.492	0.004
CFC_P2	−0.151	−1.710	0.090	0.023
CFC_F1	−0.025	−0.280	0.780	0.001
CFC_F2	−0.060	−0.669	0.505	0.004

Each line of this table presents the results of a single linear regression of the advisors' TP scores on their case preference scores. A lower score on the TP measure indicates a stronger orientation toward that TP. A lower score on the choice preference scale is indicative of a preference for Option A, while a higher score is indicative of a preference for Option B. In this case, Option A had more future benefits, and Option B had more present benefits.

measure. In each regression, the preference ratings for a particular case were regressed on the scale scores for a particular TP measure.

The results are presented in Tables 4 through 7. For all 12 of the TP measures across the four scenarios (i.e., 48 analyses), there is only one significant result at the 0.05 level (see Table 7). In the fourth case, the advisors are more likely to choose Option A if they have a stronger present orientation as measured by the Zpres_2 subscale. Items in the Zpres_2 subscale reflect a desire to maintain the quality of one's present lifestyle and to keep everyday life interesting and that is consistent with a preference for Option A because it maximizes current cash flow. With the exception of that one significant result, the third

Table 5 Linear regressions of TP measure on Case 2 score (n = 127, mean case score = 2.59)

Dependent variable	Standardized β coefficient	t-stat	p-value	R^2
ZTPI Present	0.021	0.238	0.812	0.000
ZTPI Future	0.084	0.939	0.350	0.007
CFC	0.006	0.069	0.945	0.000
Zpres_1	−0.048	−0.535	0.594	0.002
Zpres_2	0.070	0.779	0.437	0.005
Zfut_1	0.048	0.541	0.590	0.002
Zfut_2	−0.019	−0.209	0.835	0.000
Zfut_3	0.130	1.470	0.144	0.17
CFC_P1	−0.042	−0.473	0.637	0.002
CFC_P2	−0.110	−1.233	0.220	0.012
CFC_F1	−0.026	−0.294	0.769	0.001
CFC_F2	−0.081	−0.903	0.368	0.006

Each line of this table presents the results of a single linear regression of the advisors' TP scores on their case preference scores. A lower score on the TP measure indicates a stronger orientation toward that TP. A lower score on the choice preference scale is indicative of a preference for Option A, while a higher score is indicative of a preference for Option B. In this case, Option A had more present benefits, and Option B had more future benefits.

Table 6 Linear regressions of TP measure on Case 3 score (n = 127, mean case score = 4.70)

Dependent variable	Standardized β coefficient	t-stat	p-value	R^2
ZTPI Present	−0.094	−1.054	0.294	0.009
ZTPI Future	−0.069	−0.778	0.438	0.005
CFC	−0.131	−1.479	0.142	0.017
Zpres_1	−0.073	−0.819	0.414	0.005
Zpres_2	−0.088	−0.989	0.324	0.008
Zfut_1	−0.055	−0.621	0.536	0.003
Zfut_2	−0.060	−0.671	0.503	0.004
Zfut_3	−0.042	−0.465	0.642	0.002
CFC_P1	0.121	1.367	0.174	0.015
CFC_P2	0.008	0.093	0.926	0.000
CFC_F1	−0.129	−1.453	0.149	0.017
CFC_F2	−0.082	−0.925	0.357	0.007

Each line of this table presents the results of a single linear regression of the advisors' TP scores on their case preference scores. A lower score on the TP measure indicates a stronger orientation toward that TP. A lower score on the choice preference scale is indicative of a preference for Option A, while a higher score is indicative of a preference for Option B. In this case, Option A had more future benefits, and Option B had more present benefits.

hypothesis is supported because the financial planners' TP generally does not appear to have a direct effect their planning decisions. Thus, a planner's background generally does not appear to impact their TP, and their TP does not appear to directly affect their decision-making. While it was not a formal research question, I also analyzed whether or not professional background impacted the planners' decisions by performing an ANOVA for each case with firm type as the independent variable and the preference rating as the dependent variable. Again, no significant relationships were found.

If the advisors' TP affects their decisions, then one might expect the financial advisors would tend to select the future option in each case because they are future oriented. That,

Table 7 Linear regressions of TP measure on Case 4 score (n = 126, mean case score = 3.70)

Dependent variable	Standardized β coefficient	t-stat	p-value	R^2
ZTPI Present	0.151	1.704	0.091	0.023
ZTPI Future	0.054	0.606	0.546	0.003
CFC	−0.070	−0.785	0.434	0.005
Zpres_1	0.072	0.798	0.426	0.005
Zpres_2	0.177	2.008	0.047	0.031
Zfut_1	−0.014	−0.153	0.879	0.000
Zfut_2	0.076	0.849	0.397	0.006
Zfut_3	0.081	0.907	0.366	0.007
CFC_P1	0.090	1.006	0.317	0.008
CFC_P2	0.112	1.252	0.213	0.012
CFC_F1	0.011	0.122	0.903	0.000
CFC_F2	−0.069	−0.772	0.441	0.005

Each line of this table presents the results of a single linear regression of the advisors' TP scores on their case preference scores. A lower score on the TP measure indicates a stronger orientation toward that TP. A lower score on the choice preference scale is indicative of a preference for Option A, while a higher score is indicative of a preference for Option B. In this case, Option A had more present benefits, and Option B had more future benefits.

however, is not what happened. More advisors chose the future options in Cases 1 and 4, while more advisors chose the present options in Cases 2 and 3. Thus, the results appear to support the hypothesis that time perspective does not impact the advisors' decisions. An alternate argument can be made that time perspective is a factor, but something else is also at play. Although the cases were designed with one option that yields more present consequences and one option that yields more future consequences, a planner may still be focused on the client's future but select the option that has more present consequences because they feel it will be better for their particular client over the long-term. This certainly could have occurred, but it still points to some other factor at play that ultimately drives the planners' choices. An examination of the results across all four cases suggests task characteristics are an overriding factor.

Cases 1 and 2 both present scenarios where the advisor is asked to choose an appropriate strategy given a single client goal. Each case offers the client two alternatives, one with more favorable shorter-term implications and one with more favorable longer-term implications. In Case 1, Option A has more favorable future benefits and less favorable current benefits. Drawing on the line of credit means the balance in the 401(k) will continue to earn interest at tax deferred rate of 12% and ultimately result in higher long-term wealth accumulation. However, the client will have a reduced short-term cash flow because they will have to pay 8% a year on the line of credit as opposed to only 6% on the 401(k) loan. In contrast, Option B has more present benefits and less favorable future benefits. The short-term interest payments will be lower, but the growth in the 401(k) balance will also be lower. In Case 1, approximately 60% of the planners expressed at least a slight preference for the more future oriented option (mean = 3.11). This appears to lend support to the idea that TP impacts the choice made since the planners tend to be future oriented as a group. However, the findings from the linear regressions indicate no significant relationships between any of the TP measures and the preference ratings for Case 1.

In Case 2, the majority of planners selected the option with more present benefits. The investments in both options each produce an annual overall return of 12%. However, Option A yields more present benefits because the increasing dividend payment each year produces a higher current cash flow. In contrast, Option B produces a lower annual cash flow from dividends, but results in more capital growth and the tax on that growth is deferred until the investment is sold. Even though the planners were generally future oriented, 72% expressed at least a slight preference for the more present oriented option (mean = 2.59). These data suggest that the characteristics of the task may be an overriding factor. In this case, for example, financial experts are likely to see income producing stocks with increasing dividends as less risky than growth stocks. In fact, anecdotal evidence from discussions with expert financial advisors who reviewed the case indicates that many planners may focus on the safety of the dividend stock even though the case states that both stocks have equal risk. In effect, the specifics of the decision context likely impact planners' decisions to a greater extent than their general future orientation.

Case 3 presents a scenario where the planning options require a trade-off between a primary long-term goal of maximizing the transfer of wealth to beneficiaries and a primary

short-term goal of maximizing annual cash flow. Similar to Case 2, the planners indicated a preference for the option with more present benefits. Option A results in significantly larger cash outflows while the grandchildren are attending college because Mrs. Johnson is paying their college expenses while she is also contributing to the trust. Thus, it has more negative short-term consequences. However, it has more positive long-term consequences. The total wealth transferred to the grandchildren is a larger amount because Mrs. Johnson is in the highest marginal estate tax rate and this option will reduce the estate tax paid upon death. Option B has more present benefits because of the lower cash outflow while the grandchildren are in college, but fewer future benefits because a smaller amount of total wealth is transferred to the grandchildren in the long-term. In this case, 70% of the planners indicated at least a slight preference for Option B (mean = 4.70). Once again, the primarily future oriented advisors overwhelmingly seem to favor the shorter-term goal. Why might this occur? Section 529 plans are a very popular college funding tool with many benefits, and it is likely that the advisors' opinions are generally biased toward using them to fund college, regardless of the client's other goals. In fact, one financial planner noted that he was "blinded" by the benefits of the 529 plan. Thus, it appears that the task characteristics, once again, have more of an impact than do personal characteristics like TP.

In Case 4, advisors were asked to choose among strategies that required a trade-off between maximizing a primary long-term goal of transferring wealth in a tax efficient manner versus achievement of that primary long-term goal to a lesser extent in addition to a secondary short-term goal of maximizing current cash flow. Option A achieves the primary goal by utilizing the unified tax credit to transfer the money and avoid estate and gift taxes paid by the client. It achieves the secondary goal because the trust now pays income taxes on the earnings instead of the client, thus increasing the client's cash flow. Option B results in a reduced cash flow for the client because an intentionally defective trust requires the client pay income taxes on the trust's earnings. However, the tax rate the client pays is smaller and the amount of long-term wealth ultimately transferred is much larger. Thus, Option B maximizes the long-term benefits, while Option A has more current benefits. Approximately 44% of the planners chose Option A versus 56% that chose Option B (mean = 3.70). χ^2 tests indicate no significant difference between the number of planners choosing each option ($\chi^2 = 2.03$, $p = 0.154$), and only one of the twelve regressions shows any significant relationship between TP and the option chosen.

In summary, the future oriented planners sometimes chose the option with more present benefits and other times chose the option with more future benefits. It appears that the characteristics of the task override any affect that individual characteristics, such as TP, may have on the decision behavior of professional financial planners. This result supports Hypothesis 3 and is consistent with prior research in behavioral decision-making which indicates that task characteristics have a major impact on decision-making (e.g., Beach and Mitchell, 1978; Payne, 1982; Payne et al., 1992). It is also consistent with research demonstrating that judgment biases are often mitigated when experienced decision makers perform tasks for which they possess significant knowledge or expertise (Berkeley and Humphreys, 1982; Ebbesen and Konecni, 1980; Edwards, 1983; Einhorn, 1976; Fischoff, 1982, 1987; Funder, 1987; Hogarth, 1981; Kida et al., 2010; Smith and Kida, 1991).

5. Conclusion

The first hypothesis examines whether professional financial planners tend to display a particular time orientation as a group. Gonzalez and Zimbardo (1985) present preliminary results which indicate that TP may be associated with different occupations (e.g., teachers, students, managers, professionals, homemakers, semiskilled or unskilled workers, etc.). The researchers conclude that individuals most likely select a particular career because they have the TP called for by that career. Gonzalez and Zimbardo also suggest that success in the occupation further intensifies that TP bias. My results are consistent with those conclusions because I find that planners tend to be future oriented as a group. Personal financial planning involves work that is a very forward looking and it is logical that such a career would be appropriate for future oriented individuals. The findings combined with the results of the Gonzalez and Zimbardo (1985) study suggest that TP could be used as a tool in helping individuals plan their career or in assisting companies screening candidates for specific types of positions.

The second hypothesis explores whether an advisor's professional background (e.g., accounting, insurance, investment, etc.) impacts their TP. While it was not a formal research question, I also examined whether professional background influenced decision-making directly. There is some concern raised in the practitioner literature that a planner's professional background might affect their decisions and recommendations to clients. For example, the former head of the AICPA Personal Financial Planning Division indicated that CPAs often have trouble with long-term planning (O'Reilly, 2000). This might lead one to conclude that a planner's background may affect their TP and their decisions. However, I do not find much difference between the planners' TP based on their background, nor do I find that their background directly affects any of their decisions. Thus, concerns that a planner's professional background influences their decisions are mitigated.

Finally, the third hypothesis investigates the impact of TP on the decision-making of professional financial advisors. Prior research has often found a link between TP and behavior in a variety of personal decision-making contexts. However, there is a lack of research examining the effect of TP in professional decision-making contexts. The finding that financial planners tend to be future oriented as a group suggests that their future orientation may have been a factor in their decision to select a career in personal financial planning. However, selection of an occupation is a personal decision context. I test the impact of TP on professional decision-making by examining the job-related decisions (i.e., client recommendations) that the financial advisors make. While the planners are generally future oriented, they do not consistently choose the more future oriented planning option. Instead, their choices appear to be driven by the characteristics of the task. These findings are positive given that financial planning strategies need to be customized to an individual client's goals, where the most future oriented strategy may not always be appropriate. In general, the results suggest that task characteristics may be more important than individual TP biases in the financial decisions made by professional advisors. These findings are consistent with the literature that points to the importance of task characteristics on decision-making (e.g., Beach and Mitchell, 1978; Chervany and Dickson, 1978; Huber, 1983; Payne, 1982; Payne et al., 1992). The results are also

in line with prior research which demonstrates that judgment biases may be mitigated when experienced decision makers perform job-related tasks (Berkeley and Humphreys, 1982; Ebbesen and Konecni, 1980; Edwards, 1983; Einhorn, 1976; Fischoff, 1982, 1987; Funder, 1987; Hogarth, 1981; Kida et al., 2010; Smith and Kida, 1991).

Some limitations should be considered when evaluating the results of this study. First, the ability to generalize these results to the entire population of financial planners is limited because I used a convenience sample and because all of the participants held the CFP® certification. There are many other professionals in the practice of financial planning who do not hold the CFP® certification. In order to obtain certification, a candidate must meet specific educational requirements, pass a standardized exam, meet experience requirements, and agree to abide by a set of ethical standards and practice standards. These requirements may act to mitigate any differences between planners due to their different professional backgrounds. Thus, future research might examine the TP and decision-making of financial advisors not holding the CFP® certification.

The results do provide support for the theory that there is a link between an individual's TP and their career choice because the financial planners tended to be future oriented as a group. However, I was not able to examine whether an individual's TP bias is intensified with experience in the profession as suggested by Gonzalez and Zimbardo (1985). Future research could examine this possibility.

Finally, this study only examines the role of the advisor in financial planning. However, financial planning is an interactive process between the advisor and the client. While I do not find that the planners' TP affect their professional decisions (i.e., recommendations to clients), it is possible that the client's TP may have a significant impact on their personal financial decisions. For example, TP could affect a client's financial risk tolerance, credit attitudes, goals, priorities, and ability to implement their personal financial plan. Thus, future research could investigate the impact of the client's TP.

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Notes

1 For example, the Present-Fatalistic dimension is characterized by a helpless and hopeless attitude toward the future, the Past-Positive factor reflects a glowing or nostalgic construction of the past, and the Past-Negative orientation is associated with depression, anxiety and low self-esteem (Zimbardo and Boyd, 1999).

Appendix A: Financial planning cases

The cases below were designed with the assistance of a former Chair of the (CFP®) Board of Examinations Committee and reviewed by three expert planners. They all agreed that the cases were realistic and that one option clearly contained more present benefits while the other option contained more future benefits.
After reading each case, the study participants were asked to respond to a six point scale that indicated his or her preference for one of the alternatives as well as their degree of preference. Scale responses one through three indicated a preference for Option A (1 = strong preference, 2 = moderate preference, 3 = slight preference), while four through six indicated a preference for Option B (4 = slight preference, 5 = moderate preference, 6 = strong preference).

Case 1
John and Mary Parker are in their early forties and have been financial planning clients for a number of years. Their daughter Jessica is finishing her sophomore year in college and has recently decided to transfer to another college for her junior and senior years. Tuition and fees at the new school are significantly higher and the college funds set aside by John and Mary are not enough to cover the difference. Since Jessica is not eligible for any additional financial aid, John and Mary have come to you for advice on the best way to fund the additional $14,000 need. You are considering the following two options, neither of which will have a significant impact on the comprehensive financial plan already in place for the Parkers.

Option A
John and Mary have an available balance of $25,000 on an unsecured bank line of credit that they can draw on to pay the $14,000 tuition increase. Since the loan is unsecured, interest will not be deductible. They currently have no plans to use the line of credit for another purpose. Any amounts drawn on the line must be repaid at an interest rate of 8%, with principal and interest amortized over a five-year period.

Option B
The $14,000 can be borrowed from John's 401(k) plan, which has been performing better than your initial projections. The plan has been earning an annual average return of 12% and that return is expected to continue going forward. Any loans borrowed from the plan will be paid back to John's account at a rate of 6% interest with principal and interest amortized over a five-year period. Assume that John will continue to work for his current employer during the loan period.

Case 2
Recently, you helped create and implement a comprehensive financial plan for a wealthy couple, Carol and Mike Jones. Then, they unexpectedly inherited $50,000 in cash from a distant relative. Since their existing financial plan adequately covers all their goals, they decide they would like to invest the money and come to you for advice. Carol and Mike are considering two different stocks. Both stocks have an expected total annual return of 12% and the same Beta (i.e., the same level of market risk). Assume the tax rate on dividends remains the same as the capital gains tax rate during the investment holding period.

Option A
Invest the $50,000 in Company A Stock. The dividend yield on Company A stock was approximately 3% last year. The company has increased its dividend by 10% each year, a policy it will continue into the future. The expected total return each year is 12%.

Option B
Invest the $50,000 in Company B Stock. The dividend yield on Company B stock was approximately 2% last year. Company B has historically paid the same annual dividend, a policy it plans to continue in the future. The expected total return each year is 12%.

(*Continued*)

Appendix A Continued

Case 3
Mrs. Johnson is a high net worth client with a taxable estate. She is in the highest marginal estate tax bracket (45%) and the highest marginal income tax bracket (35%). Recently, Mrs. Johnson promised to pay for the college education of her grandchildren (ages 4–6). She would also like to provide them with an inheritance. She is fifty years old, in excellent health, and expects to be around long after her grandchildren complete college. An important goal for Mrs. Johnson is the maximization of her annual cash flow because she likes to travel and enjoy life's luxuries. She would also like to maximize the transfer of wealth out of her estate, a goal she considers equally important. Assume the tax rates do not change. You are considering the following two planning strategies.

Option A
Mrs. Johnson will pay for her grandchildren's educational costs as they arise in the future without any gift tax consequences since such transfers are not considered gifts. In addition, she will immediately begin making annual contributions to an irrevocable trust for the grandchildren to take advantage of the annual gift tax exclusion. Taxes on any income generated by the trust assets will be paid by the trust. Any assets remaining in her estate when she dies will be transferred by will to her grandchildren.

Option B
Mrs. Johnson will immediately begin annual contributions to Section 529 college tuition plans so she can take advantage of the annual gift tax exclusion and fund the education of her grandchildren. When the Section 529 plans are adequately funded, she will use the annual gift tax exclusion to fund an irrevocable trust for the grandchildren. Upon her death, all of Mrs. Johnson's remaining assets will be transferred to her grandchildren through her will.

Case 4
You are helping Mr. Amherst, a high net worth client, with the creation and implementation of a comprehensive financial plan. Mr. Amherst enjoys his wealth and an important goal is the maximization of his cash flow to support his lavish lifestyle. His primary goal is the transfer of his wealth in a tax efficient manner. He would like to give $1,000,000 in unneeded income producing assets to his nephew. You are considering the following two options.

Option A
Transfer the $1,000,000 of income producing property to an irrevocable trust, avoiding gift tax liability through the use of the unified credit. All growth will be transferred to the beneficiary, but the trust will pay income tax at the highest marginal rate of 35%.

Option B
Transfer the $1,000,000 of income producing property to an intentionally defective grantor trust (IDGT). Since the trust is irrevocable, gift tax liability will be avoided through use of the unified credit and all growth is transferred to the beneficiary. Because the trust is intentionally defective, the grantor (Mr. Amherst) will pay income tax at his marginal tax rate of 30%.

Appendix B: Consideration of Future Consequences (CFC) sub-scale items

CFC_P1 Scale (α = 0.76)
- My convenience is a big factor in the decisions I make or the actions I take.
- My behavior is primarily influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.
- Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.
- I primarily act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.
- I primarily act to satisfy immediate concerns, figuring the future will take care of itself.

CFC_P2 Scale (α = 0.69)
- I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.
- I primarily act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.
- I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.
- I primarily act to satisfy immediate concerns, figuring the future will take care of itself.

CFC_F1 Scale (α = 0.58)
- I think it is more important to perform a behavior with important distant consequences than a behavior with less-important immediate consequences.
- I think it is important to take warnings about negative outcomes seriously even if the negative outcome will not occur for many years.
- I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.

CFC_F2 Scale (α = 0.71)
- Often I engage in a particular behavior in order to achieve outcomes that may not result for many years.
- I consider how things might be in the future, and try to influence those things with my day to day behavior.

The Cronbach's α for each sub-scale is reported in parentheses after each sub-scale name. The CFC sub-scales were created by Ryack (2012) in a factor analysis of professional financial advisors' responses to all of the original 12 CFC scale items (Strathman et al., 1994). Note that the following two items loaded on both the CFC_P1 and CFC_P2 factors and, therefore, are included in both sub-scales: "I primarily act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date" and "I primarily act to satisfy immediate concerns, figuring the future will take care of itself."

Appendix C: Zimbardo Time Perspective Inventory (ZTPI) sub-scale items

Zpres_1 Scale (α = 0.77)
- I do things impulsively.
- I find myself getting swept up in the excitement of the moment.
- I make decisions on the spur of the moment.
- I prefer friends who are spontaneous rather than predictable.

Zpres_2 Scale (α = 0.72)
- I try to live my life as fully as possible, one day at a time.
- Taking risks keeps my life from becoming boring.
- It is important to put excitement in my life.
- It is more important for me to enjoy life's journey than to focus only on the destination.

Zfut_1 Scale (α = 0.67)
- I am able to resist temptations when I know there is work to be done.
- Meeting tomorrow's deadlines and doing other necessary work comes before tonight's play.
- I keep working at a difficult, uninteresting task if it will help me get ahead.
- I complete projects on time by making steady progress.

Zfut_2 Scale (α = 0.79)
- I meet my obligations to friends and authorities on time.
- It upsets me to be late for appointments.

Zfut_3 Scale (α = 0.62)
- I believe a person's day should be planned ahead each morning.
- When I want to achieve something, I set goals and consider specific means for reaching those goals.
- I make lists of things I must do.

The Cronbach's α for each sub-scale is reported in parentheses after each sub-scale name. The ZTPI sub-scales were created by Ryack (2012) in factor analyses of professional financial advisors' responses to nine of the 15 original ZTPI Present-Hedonistic scale items and nine of the 13 original ZTPI Future scale items (Zimbardo and Boyd, 1999). In conducting the factor analyses, the Ryack (2012) study excluded three Present-Hedonistic scale items and four Future scale items that the original Zimbardo and Boyd (1999) study found to have a negative factor loading or a loading below 0.40. Three items from the original ZTPI Present-Hedonistic scale were also excluded because two were felt to be inappropriate for professional financial advisors and one was redundant with another item that had a high factor loading. The factor analyses of the 18 items in the Ryack (2012) study yielded two distinct present sub-scales (eight total items) and three distinct future scales (nine total items). One of the present items did not make it into the sub-scales because of its low factor loading.

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