Putting Off Balance for Later: A Temporal Construal Approach to Time Allocation

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Abstract

Achieving balance in allocating the finite resource of time across different life domains is difficult. Because time is finite, extreme time investment in any life domain runs the risk of producing time deficit in other life domains. Therefore, balance often involves more moderate, instead of extreme time allocation patterns. The current research focuses on how people plan to adjust their current time allocation in the future, and tests how the time horizon of such planning influences preferences for the allocation of time. Across three experiments with different samples (a convenient sample of adults, a convenient sample of working parents, and a nationally representative sample of working adults, N = 2,385 in total), we find that planning for the distant vs. near future consistently prompts people to allocate time in a more balanced fashion, that is, allocating more moderate amounts of time in any domain of life. These findings suggest that long-term planning can be capitalized to help people achieve greater balance in time allocation, provided that smart policies are in place to make sure such plans are implemented.

Introduction

In modern society, the competing time demands from work and other areas of life makes the allocation of time the most salient attribute in achieving work/life balance (1, 2). Although it is possible to use money to free up greater leisure time (3), the total amount of time each individual has to allocate is nevertheless finite (i.e., there are only 24 hours in a day). Thus, a central requirement for achieving balance between work and nonwork life is to adjust ones' time allocation. In this paper, we explore when people will be more likely to seek out greater balance in how they adjust their time allocation for the future.

Granted, different individuals may have different ideas about the "ideal" way to allocate time across different activities. However, humans share the common needs to sleep, build intimate social connections, taking care of oneself, and to secure financial resources (especially if they are earning an income directly). A severe lack of time investment in any life domain can make life less satisfying, or worse. Given that time is fixed, when any domain of life receives too much time investment, inevitably, other domains of life will receive too little time investment. That is, too much time or too little time invested in a particular life domain represents imbalance in one's time allocation portfolio. In the current research, we conceptualize a balanced time allocation as a moderate (average) instead of extreme time allocation (much above or below average) within each life domain, including domains of work, family, personal needs, sleep, or other activities. With this definition, it follows that achieving a balanced time allocation entails an adjustment of over- or under-investment of time currently spent in any domain

of life. Indeed, there is evidence that people adjust time allocation over time across different life domains (4).

Planning Time Allocation for the Future

One productive angle to study time allocation as it relates to balance, is how people plan their time for the future. People's current time allocation may be relatively constrained because of existing time commitments, but future time allocation could be adjusted if they plan ahead of time. For instance, people could plan ahead of time to increase or decrease work responsibilities, to secure parental leave or arrange childcare, and to change living arrangements in order to create a more balanced time allocation across different life domains, based on where their current excesses and deficits are.

While individuals plan for both short- and long-term horizons when they think about the resource of money, they have a strong tendency to primarily plan for the short term when they think about the resource of time (5). This has interesting implications. Importantly, construal level theory (CLT) (6, 7) describes how shifting temporal distance of planning from the near future to a more distant future can profoundly influence preferences and choices. Based on CLT, people represent the distant future at a higher level, more abstract construal, and represent the immediate future at a lower level, more concrete construal (8). Previous research based on CLT shows that people's activity plans for the near future (lower-level construal) are dominated by feasibility concerns, whereas their plans for the relatively distant future (higher-level construal) reflect desirability concerns (9, 10). A recent paper also demonstrated that when people are in an abstract mindset (high level construal) rather than a concrete mindset (low level construal), desired attitudes predict behavioral intentions better (11). Given the connection between

abstraction and temporal distance (8), these studies all suggest that thinking about a distant future can prompt people to make plans more in line with what they desire.

In the current paper, we propose a different hypothesis: People will exhibit a stronger preference to allocate their time in a moderate fashion in the distant rather than near future. This hypothesis advances CLT beyond predictions about the desirability of a time use category and makes a specific prediction regarding a preference for a more balance time allocation.

We expect this hypothesis to apply to a broad range of life domains, including work, family, personal activities, or sleep. However, because America is considered an over-worked society (12), the American population as a whole tends to suffer from an overinvestment in work time. Thus, a derivative of our hypothesis is that in the U.S. context, greater temporal distance should shift people's time allocation towards decreased work time and increased nonwork time.

Domains of Life Activities

Recent research in work-life balance has begun to recognize that individuals take on multiple roles in their daily lives, including family, personal pursuit (self-care, friendships, hobbies, etc.), sleep, and other miscellaneous activities (13). Some research has explored the multiple domains of nonwork life, including non-family roles (14, 15), sleep (16, 17), as well as diverse needs in work-life balance across different sections of the population (18). Studies on time allocation as it's related to work-life balance, however, have focused almost exclusively on work time (19, 20), with few studies exploring time spent on sleep or relationships (4, 17), and none on time allocation across all aspects of life.

In the present research, we examine time allocation in all aspects of life, including work, family, personal needs, sleep, and other activities. This ensures that our general conceptualization of balance in time allocation is tested across many domains of life. This is important, as different people may suffer from different types of imbalance in time allocation, be it too much or too little time spent on work, family, personal needs, or sleep. This conceptualization allows us to test the hypothesis that a distant vs. near temporal horizon will prompt people to adjust time allocation in the direction of improving any pattern of imbalance they currently have.

The Current Research

The current research utilizes a between-subject experimental design to study the effect of time horizon on time allocation plans. This approach compliments the existing correlational research in the larger work-life balance literature (21). In all three experiments, we measure participants' current time allocation first; then we manipulate temporal distance by asking half of the participants to indicate their future time allocation for a typical week in a near-future time frame, and the other half of the participants to indicate their future time allocation for a typical week in a distant-future time frame.

While our first study was meant merely to explore how temporal distance influenced time allocation to work and family, our central hypothesis that planning for the distant future leads to a more balanced time allocation across domains emerged after the first study, and was tested in the subsequent studies.

Based on our central hypothesis, we expect to observe a negative interaction between current time allocation to a specific domain (e.g., work) and temporal distance. That is, participants who currently spend a lot of time in any domain (e.g., work) should

exhibit a greater decrease in their time allocation to this domain in the distant vs. near future, compared to participants who currently spend less time in this domain. Conversely, participants who currently spend the least amount of time in any domain (e.g., personal activities) should show a greater increase in their time allocation to personal activities in the distant vs. near future, compared to participants who currently spend more time in this domain. We predict this negative interaction in all the major time categories we investigate, including work, family, personal activities, and sleep. We are agnostic about this effect in the "other activities" categories, due to the mixed and potentially ambiguous nature of the activities in this category.

To clarify, such predicted effects of temporal distance do not imply that individuals' current time allocation in a certain domain would negatively predict their future time allocation in this domain. In fact, we would expect current time allocation in a given domain to positively predict future time allocation (either in the near future or the distant future). Our hypothesis, on the other hand, is concerned with the difference in time allocation between two future horizons: the near future vs. the distant future, and how current time allocation in a given domain relates to this difference. For example, people who currently work more than average may plan to still work more in the future generally, but our hypothesis would predict that their planned work time for the far future, compared to the near future, would decrease more compared to those who currently work less. Conversely, we predict that for someone who currently works less than average, their planned work time for the far future, compared to the near future, would increase more compared to those who currently work more. As discussed before, a natural extension of this hypothesis is that in the context of "overworked American" (12),

where the current imbalance lies in an over-investment of time on work, at least compared to an ideal balance in time allocation, people will plan less time for work and more for nonwork in the far future compared to the near future.

We use a variety of samples across studies all run between 2015-2016. We begin by using a convenience sample in Study 1, then shift to a sample of working parents in Study 2, and then utilize a large nationally representative sample of workers in Study 3. Table 1 shows the demographic information of each sample. We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the studies. In addition, we report all studies we conducted to test our hypotheses in line with recommendations to avoid selective reporting (22) , and report both significant and null findings to avoid a "file-drawer" bias (23). All data and materials are posted on https://osf.io/2yjmx/.

Table 1. Demographic Information of Participants in Studies 1-3.

	Study 1	Study 2	Study 3
Sample	Mturk	Working parents on Mturk	Nationally representative employed workers
N (excluding outliners)	440	480	1465
Age	34.68 (18-74, SD = 11.37)	34.95 (18-63, SD = 8.26)	42.61 (18-78, SD =13.59)

Females	39.3%	47.3%	46.3%
Education (median)	College degree	College degree	College degree
Parent of any child under 18	24.1%	100% (91.9% live with child)	42.2% (all live with child)
Employment			
Full time	65.2%	87.5%	81.2%
Part time	20.2%	12.5%	18.8%
Unemployed	9.5%	n/a	n/a
Student	5.0%	n/a	n/a
Marital status			
Single	60.5%	18.0%	26.4%
Married	28.6%	69.2%	63.1%
Divorced	6.6%	7.0%	7.6%
Other marital status	4.3%	5.8%	2.7%
Race			
Caucasian	80.2%	76.7%	65.9%
Hispanic	4.8%	6.7%	15.3%
African American	5.2%	7.7%	11.2%
Asian-American	7.7%	6.7%	5.3%
Native American	0.9%	0.8%	0.6%
Other/Multi-racial	1.1%	1.5%	1.6%
Household income	$40,000-49,999	$50,000-59,999	$61,000[a]

(median bracket)			
Political Orientation	3.47	3.17	n/a
(1-5, cons to lib)	(SD = 1.34)	(SD = 1.37)	

[a] Income in Study 3 was raw personal income instead of bracketed household income, due to purposes of the larger survey in which Study 3 was imbedded.

Study 1

Life situations that may impact time allocation can differ from individual to individual, such as whether the participant is a single parent, the age of the children, geographic distance of family members, etc. In all three studies, we capture all these variations by measuring participant's current time allocation, and expect the current time spent in each time category to be a positive predictor for future time spent in this category in general. Capturing current time allocation also allows us to test our central hypothesis, which indicates that participants who currently spend more (less) time in any domain than their peers should exhibit a greater decrease (greater increase) in their time allocation to this domain in the far vs. near future. This prediction should manifest in a negative interaction between current allocation in any life domain and temporal distance when predicting planned future time allocated to this domain.

In addition to measuring current time allocation prior to the manipulation, we also measured participants' identification with work and family. Past work on work-family interface has argued that an individual's identification with work or family roles is positively associated with time spent in the domains of work or family, respectively (24-26). Including these measures allows us to ascertain whether the preference for balance in

the distant (vs. near) future is robust in the domains of work and family above and beyond the influence of role identification.

Materials and Methods

Participants. We conducted an experiment among Amazon Mechanical Turk participants. A target sample size of 500 was determined prior to data collection, using the general rule of thumb of recruiting 200-250 participants per between-subject condition to obtain stable correlational estimates within each category (27). We did not use a power analysis to determine sample size because there is no prior research on how temporal distance and current time allocation interact to impact time allocation. We received responses from 455 participants. We then screened out 15 outliers whose time allocation in any of the 5 specific categories (work, family, personal, sleep, and other activities) was 4 standard deviations away from the mean for either current time allocation or future time allocation (see more details in the Questionnaire section below). Among the remaining 440 participants (39% female), mean age was 34.68 years old (*SD* = 11.37), 24.1% of the participants were currently a parent of at least one child under 18 years old, and 64.2% full-time employed and 20.2% part-time employed. See detailed demographic information in Table 1.

Questionnaire. We first measured work identity using an established Work Involvement Scale (28), and measured family identity by substituting the term "work" with "family" in the Work Involvement Scale, following prior research (26). Each of these scales included 6 items, such as "*The most important things that happen in life involve work/family*", and "*In my view, an individual's personal life goals should be work/family-oriented*", and measured responses on a 1-7 scale on their agreement to the

statement (see scale items in Appendix). The order of these two scales was counterbalanced. Cronbach's alpha = 0.85 and 0.88, respectively. We created a composite rating for each scale by taking the mean among the 6 items after reverse coding for the appropriate items.

Current time allocation questions were presented next. Participants were first asked, "*In a typical week, how much time do you spend on activities mainly directed towards each of the following goals?*" and indicated the number of hours a week they allocated to each of 5 categories: *work, family, personal, sleep,* and *other activities*, with the restriction that all the hours must add up to 168 hours (i.e., the total hours in a week). The order of the categories "work" and "family" was counterbalanced, followed by the other categories. We also gave an example to facilitate the calculation of hours allocated to activities (see Appendix). Then, participants were asked about their future time allocation in a similar format. For this question, they were randomly assigned to one of two time frames: The near future condition asked participants about time allocation in a typical week "*1 month from now*", and the distant-future condition asked them to consider a typical week "*5 years from now*". Participants provided demographic information at the end of the study.

For all studies in this paper, we obtained IRB approval at University of Colorado Denver (IRB protocol 12-1262). All participants read the consent form before participating in the study and assented to the study by clicking a button to proceed to the next page of the survey. The consent procedure was approved by the IRB and recorded as part of the dataset.

Results

Current time allocation. Table 2 lists the mean number of hours participants were currently allocating to each category during a typical week in Studies 1-3. Overall, participants in Study 1 spent 38.99 hours/week on work, 29.20 hours/week on family, 31.07 hours/week on personal activities, 51.73 hours/week on sleep, and 17.08 hours/week on other activities.

Table 2. Means (hours/week) and 95% Confidence Intervals of Current Time Allocation in Studies 1-3.

	Work	Family	Personal	Sleep	Other
			Study 1: Mturk Sample		
M	38.99	29.20	31.07	51.73	17. 08
95% CI	[37.68, 40.30]	[27.39, 31.01]	[29.31, 32.82]	[50.89, 52.58]	[15.80, 18.37]
			Study 2: Mturk sample of working Parents		
M	43.31	44.02	16.96	50.19	13.52
95% CI	[42.28, 44.24]	[42.51, 45.54]	[16.16, 17.76]	[49.44, 50.94]	[12.51, 14.52]
			Study 3: Nationally representative workers		
M	40.94	34.32	24.80	47.65	20.34
95% CI	[40.29, 41.58]	[33.41, 35.22]	[24.07, 25.53]	[47.02, 48.28]	[19.50, 21.18]
			Parents in Study 3		
M	41.47	39.73	22.90	46.35	19.55

95% CI	[40.54, 42.40]	[38.39, 41.07]	[19.95, 21.86]	[45.37, 47.34]	[18.28, 20.82]
			Non-parents in Study 3		
M	40.55	30.37	27.65	48.59	20.92
95% CI	[39.66, 41.43]	[29.21, 31.52]	[26.63, 28.66]	[47.77, 49.42]	[19.80, 22.04]

Temporal distance and time allocation. The central hypothesis of the paper predicts a negative interaction between current time allocated to a domain and time frame. We explored this hypothesis in 6 regression analyses, 5 using future time that participants allocated to each of the five activity categories (work, family, personal, sleep, other) as the outcome variable, and 1 using the total future time allocated to nonwork life combining 3 activities (family, personal, and sleep) as the outcome variable. The "other activities" category was not included in the computation of "nonwork life" because it is not clear whether participants would include some work-related activities, such as commuting, in the "other" category. In each regression, predictor variables included time frame (-0.5 for near future, 0.5 for distant future), mean centered current time allocated to the particular category investigated in the outcome variable, and their interaction. Table 3 lists regression coefficients from these 6 regressions.

We conducted sensitivity analysis for these regressions. Using G*Power (29), we calculated the minimum effect sizes detectible in the regressions listed in Table 3. The analysis showed that, given $\alpha = 0.05$, power = 0.80, and N = 440, each 3-predictor regression can detect a minimum effect size of $f^2 = .018$ from each predictor. Using the formula $f^2 = sr^2/(1- R^2)$ from Cohen, West & Aiken (30) (p. 94) , where sr^2 represents the

semi partial squared correlation for each predictor, and R^2 represents the total squared correlation of the regression, we calculated the minimum sr^2 detectible from a predictor in each regression, with minimum detectible sr^2 = 009, .005, .006, .006; .009, and .008, for future work, family, personal, sleep, "other", and nonwork time, respectively (Table 3).

Table 3. Regressions Predicting Future Time Allocation to Work, Family, Personal time, Sleep, "Other" Activities, and Nonwork Life Combined [a] in Study 1.

DV & Predictors	*B*	*SE*	*t*	*p*	*B (95% CI)*		sr^2
					LL	*UL*	
DV: Future work time				*Minimum detectible[b] sr^2:*			*.009*
Current work time (C)	0.63	0.03	18.61	<.001	0.56	0.70	.389
Time frame (T)	-1.55	0.94	-1.66	.098	-3.39	0.29	.003
C × T	-0.49	0.07	-7.27	<.001	-0.63	-0.36	.060
DV: Future family time				*Minimum detectible[b] sr^2:*			.005
Current Family Time (C)	0.84	0.02	34.52	<.001	0.80	0.89	.709
Time frame (T)	4.95	0.95	5.24	<.001	3.10	6.81	.016
C × T	-0.22	0.05	-4.46	<.001	-0.32	-0.12	.011
DV: Future personal time				*Minimum detectible[b] sr^2:*			.006
Current Personal Time (C)	0.71	0.03	27.13	<.001	0.66	0.76	.610
Time frame (T)	-1.70	0.98	-1.74	.083	-3.62	0.22	.003
C × T	-0.33	0.05	-6.22	<.001	-0.43	-0.22	.032
DV: Future sleep time				*Minimum detectible[b] sr^2:*			.006
Current Sleep Time (C)	0.78	0.03	28.26	<.001	0.73	0.84	.642

Time frame (T)	0.60	0.50	1.20	.233	-0.39	1.58	.001
C × T	-0.09	0.06	-1.61	.109	-0.20	0.02	.002
DV: Future "other" time				*Minimum detectible*[b] sr^2*:*			.009
Current “Other” Time (C)	0.63	0.03	21.34	<.001	0.57	0.69	.501
Timeframe (T)	-1.95	0.80	-2.43	.015	-3.52	-0.37	.007
C × T	-0.30	0.06	-5.11	<.001	-0.42	-0.19	.029
DV: Future nonwork time [a]				*Minimum detectible*[b] sr^2*:*			.008
Current nonwork time (C)	0.67	0.03	21.64	<.001	0.61	0.73	.491
Time frame (T)	3.60	1.11	3.25	.001	1.42	5.78	.011
C × T	-0.38	0.06	-6.17	<.001	-0.50	-0.26	.040

[a] Nonwork combines time allocated to family, personal activities and sleep.

[b] Minimum detectible effects were computed using formula $f^2 = sr^2/(1- R^2)$, where f^2 is the minimum detectible effect size of the regression derived from sensitivity analysis, R^2 is the total regression R^2 , and sr^2 is the minimum detectible effect of each predictor.

As listed in Table 3, in all 6 regressions, current time allocated to each domain positively predicted future time allocated to the same domain. The coefficient ranged from $B = 0.60$ to $B = 0.84$, and sr^2 ranged from .389 to .709, $p < .001$ for all.

Critically, 5 out of these 6 regressions in Table 3 revealed a significant negative interaction between current time allocated to a domain and time frame. The coefficient for the 5 regressions for work, family, personal, “other activities”, and nonwork time as a whole ranged from $B = -0.22$ to $B = -0.49$, and sr^2 ranged from .012 to .060, $p < .001$ for all (Table 3). In the regression for sleep time, this interaction was in the predicted direction, but not significant, $B = -0.09$, 95% CI [-0.20, 0.02], $p = .109$, $sr^2 = .002$, which

was below the minimum detectible effect size .006 based on our sensitivity analysis. Overall, the pattern of results is consistent with our central hypothesis that people's allocation in the distant as compared to the near future is in the opposite direction of their current time investment in a domain compared to average.

In addition, consistent with the derived prediction based on the overall overworked context of the American population, participants planned more time for nonwork life in the distant future condition compared to those in the near future condition, B = 3.60, 95% CI [1.42, 5.78], p = .001, sr^2 =.011. That is, they shifted time towards nonwork life in the distant vs. near future condition. The mirror effect in future work time was in the opposite direction, as expected, but not significant: Participants planned directionally less time for work in the distant vs. near future conditions, B = -1.55, 95% CI [-3.39, 0.29], p = .098, sr^2 =.003.

To further explore the negative interactions consistent with the central hypothesis, that is, the interactions between current time allocated to a domain and time frame as we presented earlier, we performed simple slope analyses for two regressions as examples, one for work time, and one for nonwork time combined. Fig 1 shows the effect of temporal distance for three groups of individuals: Those whose current work time (Fig 1A) or nonwork time (Fig 1B) was at the mean, 1 SD above the mean, or 1 SD below the mean.

Fig 1. Estimated number of future hours per week allocated to (A) work and to (B) nonwork life as a whole (family, personal, and sleep time combined) in Study 1, by time frame and current level of time allocation to work (A) or nonwork life (B), with

current time allocated to the domain displayed as isolated data points not linked to the lines.

As indicated in Figure 1A, the average participant (solid line with circles), who currently worked 38.94 hours/week, allocated B = -1.55 fewer future hours/week to work (95% *CI* [-3.39, 0.29]) in the 5-year condition compared to the 1-month condition, p = .098, sr^2 = .003. Those who currently spent a lot more time on work than average (1 *SD*, or 14.01 hours/week above the mean, dotted line with rectangles) showed a larger negative effect of time frame: They allocated B = -8.45 fewer hours/week for work in the 5-year condition than the 1-month condition, 95% *CI* [-11.06, -5.85], p < .001, sr^2 = .046. In contrast, those who currently spent much less time working than average (1 *SD* below the mean, dashed line with triangles) actually allocated B = 5.35 more hours/week for work in the 5-year condition compared to the 1-month condition, 95% *CI* [2.72, 7.99], p < .001, sr^2 = .018. This pattern is consistent with our hypothesis that individuals who currently over-invest in a domain would plan greater decrease in time investment for this domain in the distant vs. near future condition, compared to their peers who currently invest less in this domain.

As illustrated in Figure 1B on future nonwork time, the average participant (solid line with circles), who currently spent 112.00 hours/week on nonwork life combined, planned B = 3.60 more hours/week for nonwork life (95% *CI* [1.42, 5.78]) in the distant future condition (5-years from now) than in the near future condition (1-month from now), p = .001, sr^2 = .011. Those who were currently spending a lot more time on nonwork life than average (1 *SD*, or 17.98 hours/week above the mean, dotted line with triangles) showed an opposite effect of time frame, planning fewer hours for nonwork life

in the 5-year condition compared to the 1-month condition, B = -3.25, 95% CI [-6.34, -0.17], p = .039, sr^2 = .004; but those who were currently spending much less time in nonwork life than average (1 *SD* below the mean, dashed line with triangles) planned B = 10.45 more hours/week for nonwork life in the 5-year condition compared to the 1-month condition, 95% *CI* [7.37, 13.54], $p < .001$, sr^2 = .047. Again, this pattern of interaction supports our main hypothesis that individuals who have the most surplus invested in any domain would show the largest negative difference (or smallest positive difference) when planning for the distant future compared to the near future, whereas those who have the strongest deficit in any domain would show the greatest positive difference in nonwork time when they plan for the distant future compared to the near future.

Work vs. family identity. We conducted two regression analyses for future work time and future family time again, but this time controlling for work identification and family identification, respectively, as well as their interactions with other predictors. See detailed regression results in Supplemental Materials and Table S1. The main conclusions described above did not change. Importantly, in both analyses, even after the effect of participants' identification for involvement in work or family was controlled for, the negative interaction between current time allocation and time frame as predicted by our main hypothesis was still significant: B = -0.49, 95% CI [-0.62, -0.35], $p < .001$, sr^2 =.059 for future work time, and B = -0.30, 95% CI [-0.40, -0.20], $p < .001$, sr^2 =.019 for future family time. The main effect of time frame on future time allocated to work and to family remained similar as before. These results suggest that revealed preferences for greater balance in the distant vs. near future is a robust effect controlling for domain

identification, which is typically assumed to drive time allocations across the domains of work and family.

Discussions

Even though the analyses in Study 1 pertaining the main hypothesis emerged after observing the data, the results from the regression analyses were fairly consistent across each of the time use domains. Specifically, these post hoc tests revealed that planning for the distant future, compared to the near future, induced participants to increase time allocation for under-invested domains and decrease time allocated for over-invested domains. This pattern is observed in all of the time domains we examined, except for sleep. Moreover, this effect was also robust for analyses that accounted for people's identification with the domain for work and family, respectively.

Study 1 results were partially consistent with our derived prediction that planning for the distant vs. near future shifts people's time allocation from work to nonwork. Thinking about the distant vs. the near future induced participants to allocate more of their future time (3.60 hours/week) to life outside of work. However, only marginally less time (-1.55 hours/week) was allocated to work in the distant vs. near future condition. This asymmetry was only possible because participants also planned to spend slightly less time in "other activities" (-1.95 hours/week) in the distant vs. near future. Because this "other" category includes uncategorized activities, it is difficult to draw conclusions on what this means. However, we suspect that it reflects a plan to cut down inefficiencies in the distant vs. near future and time spent on unwanted activities such as commute. It is possible to construe this result as an unrealistic expectation that one will always have more extra time, or "time slack", in the future than at the present (31, 32).

Given that the main hypothesis in this paper was proposed after Study 1, we conducted two more studies to test the hypothesis, using a sample of working parents for whom balance is especially challenging to achieve (Study 2) as well as and a large representative sample of workers in order to assess the generalizability (Study 3).

Study 2

Working parents represent a part of the population where balance can be especially difficult to achieve (33). Indeed, a recent poll by Pew Research reported that 53% working parents with children under age 18 in the U.S. say it is somewhat or very difficult to balance their work and their family life (34).

The goal of Study 2 was to test whether the findings we observed among the convenience sample of adults in Study 1 applied to the population of working parents. Study 2 used a similar design as Study 1 but included a "10 year" distant-future condition in addition to the "5 year" distant-future condition and the "1 month" near-future condition to test whether the effect was more pronounced with a 10-year rather than 5-year time horizon. Because temporal distance and construal levels are both relative, construal level theory (6, 7) would predict that the 10-year condition would produce a stronger effect than the 5-year condition, compared to the 1-month condition.

Materials and Methods

Participants. Participants were 494 Amazon Mechanical Turk panel members who self-identified as working parents. Sample size was determined prior to data collection, with a target sample size of 600 (we wanted to reach a sample size of 200 per condition), but received 494 responses from self-identified working parents (those who started the survey but indicated at the beginning of the survey that they were either not

working, or not a parent were directed away from the survey). Following the same standard as in Study 1, we screened out 14 (2.8%) participants due to the extreme hours they had indicated for either current or future time allocation in any time category (> 4 *SD* away from the mean). Among the remaining 480 participants (47.3% females), mean age was comparable to Study 1 (M = 34.95, SD = 8.26). Through the recruiting criteria, all participants were parents (91.9% were currently living with their children who were under 18 years old) and all participants were employed (87.5% full-time and 12.5% part-time). See detailed demographic information in Table 1.

Questionnaire. The main part of the questionnaire in Study 2 was the same as Study 1, except two changes. First, Study 2 included three between-subject conditions. While the near future condition still "*a typical week 1 month from now*", there were two far-future conditions, with a time horizon of "*a typical week 5 years from now*" or "*a typical week 10 years from now*", respectively. Second, we included explanations for what activities were included in each time category (see Appendix). Study 2 also included the same work involvement scale and family involvement scale as Study 1 at the beginning of the survey.

Results

Current Time Allocation. As listed in Table 2, descriptively, this sample of working parents currently worked more hours (43.31 hours/week) than the convenience sample in Study 1 (38.99 hours), likely due to fact that Study 2 excludes unemployed participants; this sample also allocated a larger portion of their week to family (44.02 hours) than the sample in Study 1 (29.20 hours) and had less personal time (16.96 hours)

compared to Study 1 (31.07 hours) in a typical week, whereas sleep time (50.19 hours) was comparable to the sample in Study (51.79).

Temporal distance and time allocation. To test the central hypothesis that planning for the distant vs. near future prompts more balanced time allocation, we conducted the same set of 6 regression analyses as in Study 1, on future time allocation to work, family, personal activities, sleep, other activities and total nonwork time (family, personal, and sleep categories combined), respectively. Because of the 3 time frame conditions in Study 2, we included two dummy coded variables to capture the 5 years frame and 10 years respectively (T5 and T10 in Table 4), with the 1-month near-future frame as the reference category. As with the previous study, current time allocation in a specific domain was centered to the mean for all analyses. We conducted sensitivity analysis for these regressions using the same method as in Study 1, given $\alpha = 0.05$, power = 0.80, $N = 480$. The analysis showed that each 5-predictor regression can detect a minimum effect size of $f^2 = .016$ from each predictor. Given the regression R^2 for each regression, this equates to a minimum detectible sr^2 = 010, .006, .009, .007; .009, and .009, for future work, family, personal, sleep, "other", and nonwork time, respectively. See Table 4.

Table 4. Regressions Predicting Future Time Allocation to Work, Family, Personal, Sleep, "Other" Activities, and Nonwork Life Combined [a] in Study 2.

DV & Predictors	*B*	*SE*	*t*	*p*	*95% CI*		sr^2
					LL	*UL*	
DV: Future work time				*Minimum detectible*[b] sr^2*:*			.010
Current Work Time (C)	0.93	0.07	13.15	<.001	0.79	1.07	.231

Time frame_5y (T5)	-1.11	0.99	-1.12	.262	-3.06	0.83	.002
Time frame_5y (T10)	-4.49	1.00	-4.48	<.001	-6.46	-2.52	.027
C × T5	-0.57	0.10	-5.76	<.001	-0.77	-0.38	.044
C × T10	-0.48	0.09	-5.12	<.001	-0.67	-0.30	.035
DV: Future family time					*Minimum detectible[b] sr^2:*		.006
Current Family Time (C)	0.92	0.05	19.38	<.001	0.82	1.01	.311
Time frame_5y (T5)	-0.56	1.11	-0.51	.613	-2.75	1.62	.000
Time frame_5y (T10)	0.91	1.12	0.81	.421	-1.30	3.11	.001
C × T5	-0.36	0.07	-5.49	<.001	-0.49	-0.23	.025
C × T10	-0.24	0.07	-3.56	<.001	-0.37	-0.11	.011
DV: Future personal time					*Minimum detectible[b] sr^2:*		.009
Current Personal Time (C)	0.75	0.07	11.29	<.001	0.62	0.88	.155
Time frame_5y (T5)	1.37	0.87	1.58	.116	-0.34	3.08	.003
Time frame_5y (T10)	3.04	0.88	3.47	.001	1.32	4.76	.015
C × T5	-0.13	0.09	-1.41	.158	-0.32	0.05	.002
C × T10	0.08	0.10	0.82	.413	-0.12	0.28	.001
DV: Future sleep time					*Minimum detectible[b] sr^2:*		.007
Current Sleep Time (C)	0.82	0.05	15.27	<.001	0.72	0.93	.214
Time frame_5y (T5)	1.27	0.62	2.04	.042	0.05	2.50	.004
Time frame_5y (T10)	1.82	0.63	2.89	.004	0.58	3.06	.008
C × T5	-0.17	0.08	-2.26	.024	-0.32	-0.02	.005
C × T10	-0.06	0.08	-0.81	.417	-0.21	0.09	.001
DV: Future "other" time					*Minimum detectible[b] sr^2:*		.009

Current Other Time (C)	0.72	0.06	13.12	<.001	0.61	0.82	.198
Time frame_5y (T5)	-1.08	0.86	-1.25	.212	-2.77	0.62	.002
Time frame_5y (T10)	-1.12	0.87	-1.28	.201	-2.83	0.60	.002
C × T5	-0.12	0.08	-1.57	.118	-0.27	0.03	.003
C × T10	-0.17	0.08	-2.14	.033	-0.32	-0.01	.005
DV: Future nonwork life [a]				*Minimum detectible*[b] sr^2*:*			.009
Current nonwork Time (C)	0.81	0.06	13.11	<.001	0.69	0.93	.211
Time frame_5y (T5)	2.23	1.18	1.89	.060	-0.09	4.55	.004
Time frame_5y (T10)	5.77	1.20	4.83	<.001	3.42	8.12	.029
C × T5	-0.34	0.08	-4.11	<.001	-0.50	-0.18	.021
C × T10	-0.31	0.09	-3.66	<.001	-0.48	-0.14	.016

[a] Nonwork combines time allocated to family, personal activities and sleep.

[b] Minimum detectible effects were computed using formula $f^2 = sr^2/(1- R^2)$, where f^2 is the minimum detectible effect size of the regression derived from sensitivity analysis, R^2 is the total regression R^2 , and sr^2 is the minimum detectible effect of each predictor.

As listed in Table 4, in all 6 regressions, current time positively predicted future time planned for the same life domain, as expected. The coefficient ranged from $B = 0.72$ to $B = 0.93$, and sr^2 ranged from .155 to .311, $p < .001$ for all. Because the regressions included interactions involving dummy codes, these coefficients represent the effect of current time allocated in a domain on future time allocated in the same domain 1-month from now (reference category).

Critically, among the 12 interaction terms between current time allocation and dummy codes for time frame in the 6 regressions (C × T5, C × T10 in Table 4), 8 were

significant and in the expected direction, and 3 were in the expected direction but not significant. In the regressions for work, family, and nonwork time as a whole, the interaction coefficient ranged from B = -0.24 to B = -0.57, and sr^2 ranged from .011 to .044, all ps < .001, all above the minimum detectible effect in their respective regressions. In the regressions for personal time and "other" time, the interaction term had effect sizes below the minimum detectible effects, and was significant only for one of the two far-future conditions (5-Year, 10-Year): B = -0.17, p = .024, sr^2 = *.005* for the 5-year time frame for future sleep time, and B = -0.17, p = .033, sr^2 = *.005* for the 10-year time frame for future "other" time. In the regression for personal time, the interaction was not significant for either of the two far-future conditions, B = -0.13, p = .158 sr^2 = .002 for the 5-year condition, B = 0.08, p = .413 sr^2 = .001 for the 10-year condition, both with effects below the minimum detectible effect. Taken together, given that 8 out of the 12 interaction terms between current time allocation and time frame were significant, the overall pattern of results supports our central hypothesis that people's time allocation for the distant versus the near future is in the opposite direction of their current time investment compared to average.

In addition, consistent with our derived hypothesis, as listed in Table 4, participants planned to spend significantly more time on nonwork life in general in the 10-Year condition compared to the 1-Month condition, B = 5.57 hours/week, 95% CI [3.42, 8.12], p < .001, sr^2= .029, and significantly less time working in the 10-Year condition compared to the 1-Month condition, B = -4.49 hours/week, 95% CI [-6.46, -2.52], p < .001, sr^2 = .029. This effect was less stable in 5-Year vs. 1-Month condition comparison, where participants planned marginally more time to nonwork, B = 2.23, 95%

CI [-0.09, 4.55], p = .060, sr^2= .004, and planned directionally less time to work in the 5-Year vs. 1-Month condition, but this effect was not significant effect, B = -1.11, 95% CI [-3.06, 0.81], p = .262, sr^2 = .002.

Work and family identity. Following the analyses in Study 1, we conducted the two analyses for future work time and future family time described above again, while controlling for work identification and family identification, respectively, as well as their interactions with other predictors. See Table S2 in the Supplemental Materials for detailed results. The main conclusions described above did not change. Importantly, in both analyses, even after the effect of identification with work and family were controlled for, the negative interaction between current time allocation and timeframe as predicted by Hypothesis 1 was significant for both the interaction with 5-Year and the interaction with the 10-Year dummy codes: For future work time, $B_{C \times T5}$ = -0.61, 95% CI [-0.82, -0.41], sr^2= .047, and $B_{C \times T10}$ = -0.49, 95% CI [-0.68, -0.30], sr^2 = .035, p < .001 for both; for future family time, $B_{C \times T5}$ = -0.37, 95% CI [-0.50, -0.24], sr^2 = .025, and $B_{C \times T10}$ = -0.25, 95% CI [-0.38, -0.12], sr^2 = .011, p < .001 for both. These results provide further support that our main hypothesis is robust.

Discussions

The results of Study 2 generally supported our main hypothesis in a population that was presumably most challenged by the problem of work-life balance. Across regression analyses for different time categories, there was a fairly consistent pattern of a negative interactions between current time allocation and time frame. Thus, individuals who had the most surplus (or least deficit) invested in any domain showed the largest negative difference (or smallest positive difference) when planning for the distant future

compared to the near future. The results partially supported our derived hypothesis that thinking about the distant vs. near future prompts people to allocate more of their future time to life outside of work, and less time to work, although significant effects for both work and nonwork were only obtained for the 10-year time frame vs. the 1-month time frame. It maybe that working parents on average make plans to reduce work time and increase nonwork time when comparing a very distant future, such as 10 years from now, to the near future.

In the next study, we sought to address the limitation that both of the previous studies were conducted using Amazon Mechanical Turk participants, where sampling was done based on convenience and did not strive to have sufficient variance on important demographic characteristics that are representative of the US workforce. Additionally, an important demographic characteristic highly relevant to balancing present vs. future time-allocation is parenthood status. As we have argued before, working parents may experience the greatest difficulty allocating time due to the increased total obligations. Empirically, it is important to directly test whether the effects we have observed so far are reliably moderated by parenthood status. The samples in Study 1 and 2 did not provide a clear contrast because only about 3/4 of the participants sample in Study 1 were non-parents, and about 15% did not work; whereas, Study 2 was composed entirely of working parents (Table 1). Thus, seeking a more representative sample will afford a direct test of whether the conclusions from these studies are generalizable more broadly, and whether these effects differ among different demographic sectors, such as parents vs. non-parents.

Study 3

In order to test whether the findings were generalizable across important subpopulations and moderated by demographic factors, we conducted a study highly similar to the previous experiments but employed a much larger nationally representative sample of employed adults. In addition, we utilized a 1-year time frame for the distant future condition to see if the robust interaction effect we have observed would generalize within a narrower distant-future time horizon. This is important, as many planning decisions related to work-life balance could occur 1 year before the event in the organization, such as stepping up or down in job responsibilities and planning parental leave with the expectation of a new child.

Materials and Methods

Participants. We engaged a commercial panel service (Qualtrics) to recruit a minimum target sample of 1,500 full- and part-time employees that were representative of the US population based on age, gender, and income. Actual sample size was 1503. The target sample size was determined prior to data collection, by the need of the larger survey in which the current study was embedded. While the initial age and gender targets were easily obtained through the panel, the following initial target quota for income of 3% (less than $10,000), 9% ($10,000 to $24,999), 21% ($25,000 to $49,999), 21% ($50,000 to $74,999), 16% ($75,000 to $99,999), 18% ($100,000 to $149,999), and 12% (more than $150,000) had to be adjusted because of difficulties in collecting data from high income participants. Thus, the income quota provided had the following distribution of income: less than $10,000 (3.2%); $10,000 to $24,999 (9.9%); $25,000 to $49,999 (23.5%); $50,000 to $74,999 (24.2%); $75,000 to $99,999 (16.2%); $100,000 to $149,999 (13.5%); more than $150,000 (9.4%).

We screened out 38 outliers from the initial 1503 participants based on current and future time allocation, using the same standards as in the previous two studies (> 4 *SD* away from the mean). Among the remaining 1465 participants (46.3% female), mean age was 42. 61 (*SD* = 13.59), median annual income was $61,000. By recruiting criteria, all participants were employed, and among them, 81.2% were full-time employed, and 18.8% were part-time employed. With regard to parental status, 42.2% of all participants were parents living with children under 18 (only these participants were coded as parents in our analysis), and another 11.5% had children but did not live with anyone under 18, 3.6% expect to have their first child within 1 year, and 42.8% were neither parents nor expect to be parents within a year. See detailed demographic information in Table 1

Questionnaire. This study was embedded in a larger survey among full-time and part-time employees on networking. Participants indicated their current time allocation for a typical week to each activity category similar to Study 2, with slight differences in the explanations of each time category (see Appendix). Then participants were randomly assigned to indicate their future time allocation for a typical week either 1-month from now (near future condition) or 1-year from now (distant future condition). At the end of the study, participants provided demographic information.

Results

Current time allocation. Table 2 lists the current mean number of hours allocated to each category during a typical week as well as their correlations. Study 3 affords an opportunity to explicitly compare sufficiently large samples of working parents and working non-parents in current time allocations. We defined parents as parents living with children under age 18 (n = 618, 42%). Compared to working non-

parents, these working parents currently spent a similar amount of time on work ($M_{parents}$ = 41.47 vs. $M_{non\text{-}parents}$ = 40.55), $t(1463) = 1.38$, $p = .167$, Cohen's $d = 0.07$, and similar amount of time on nonwork life combined ($M_{parents}$ = 106.98 vs. $M_{non\text{-}parents}$ = 106.61), $t(1463) = 0.41$, $p = .682$, Cohen's $d = 0.02$. The difference between parents and nonparents, however, lies in the pattern of time allocation *within* nonwork life: Compared to working non-parents, working parents spent significantly more time on family (M = 39.73 vs. 30.37), $t(1463) = 10.34$, $p < .001$, Cohen's $d = 0.54$, significantly less time on personal activities (M = 20.90 vs. 27.65), $t(1463) = 9.20$, $p < .001$, Cohen's $d = 0.48$, and less time on sleep (M = 46.35 vs. 48.59), $t(1463) = 3.44$, $p = .001$, Cohen's $d = 0.18$.

Temporal distance and time allocation. To test the central hypothesis, we conducted the same set of 6 regression analyses as in Studies 1 and 2, on future time allocation to work, family, personal activities, sleep, other activities and total nonwork time (combined time spent on the family, personal, and sleep categories), respectively. See coefficients from these regressions in Table 5. Similar to Study 1, we analyzed the results using contrast codes for condition (near future = -0.5, far future = 0.5), mean centered current time allocations and their interaction as predictors in the regressions. We conducted sensitivity analysis for these regressions using the same method as in the previous studies, given $\alpha = 0.05$, power = 0.80, N = 1465 (N = 1461 in regression for "other" time category). The analysis showed that each 3-predictor regression can detect a minimum effect size of $f^2 = .005$ from each predictor. Given the regression R^2 for each regression, this is equal to a minimum detectible $sr^2 = .002$ for all regressions. See Table 5.

Table 5. Regressions Predicting Future Time Allocation to Work, Family, Personal, Sleep, "Other" Activities, and Nonwork Life Combined[a] in Study 3

DV & Predictors	*B*	*SE*	*t*	*p*	*B (95% CI)*		sr^2
					LL	*UL*	
DV: Future work time				*Minimum detectible[b] sr^2:*			.002
Current Work Time (C)	0.74	0.02	42.48	<.001	0.71	0.78	.552
Time frame (T)	-0.16	0.44	-0.37	.714	-1.02	0.70	<.001
C × T	-0.11	0.04	-3.18	.002	-0.18	-0.04	.003
DV: Future family time				*Minimum detectible[b] sr^2:*			.002
Current Family Time (C)	0.83	0.02	54.18	<.001	0.80	0.86	.661
Time frame (T)	0.62	0.54	1.15	.249	-0.44	1.68	<.001
C × T	-0.13	0.03	-4.21	.000	-0.19	-0.07	.004
DV: Future personal time				*Minimum detectible[b] sr^2:*			.002
Current Personal Time (C)	0.75	0.02	46.50	<.001	0.71	0.78	.596
Time frame (T)	0.21	0.46	0.46	.646	-0.68	1.10	<.001
C × T	-0.07	0.03	-2.28	.023	-0.14	-0.01	.001
DV: Future sleep time				*Minimum detectible[b] sr^2:*			.002
Current Sleep Time (C)	0.78	0.02	46.16	<.001	0.74	0.81	.590
Time frame (T)	0.12	0.41	0.30	.768	-0.69	0.93	<.001
C × T	-0.07	0.03	-1.93	.054	-0.13	0.00	.001
DV: Future "other" time				*Minimum detectible[b] sr^2:*			.002
Current "other" Time (C)	0.68	0.02	44.05	<.001	0.65	0.71	.567
Time frame (T)	-1.02	0.51	-2.02	.044	-2.02	-0.03	.001

C × T	0.00	0.03	0.12	.906	-0.06	0.06	<.001
DV: Future nonwork time [a]					*Minimum detectible*[b] sr^2*:*		.002
Current nonwork time (C)	0.69	0.02	39.43	<.001	0.66	0.73	.511
Time frame (T)	1.16	0.61	1.90	.058	-0.04	2.36	.001
C × T	-0.05	0.04	-1.46	.145	-0.12	0.02	.001

[a] Nonwork combines time allocated to family, personal activities and sleep.

[b] Minimum detectible effects were computed using formula $f^2 = sr^2/(1- R^2)$, where f^2 is the minimum detectible effect size of the regression derived from sensitivity analysis, R^2 is the total regression R^2 , and sr^2 is the minimum detectible effect of each predictor.

As listed in Table 5, across all 6 regressions, current time allocation positively predicted future time allocation for the same life domain, as expected. The coefficient ranged from $B = 0.68$ to $B = 0.74$, and sr^2 ranged from .511 to .661, all ps < .001. Critically, in 4 out of the 6 regressions, including ones for work, family, personal, and sleep time, the interaction coefficient between current time allocation and time frame was significant or marginally significant, ranging from $B = -0.07$ to $B = -0.13$, ps from < .001 to .054, sr^2 ranging from .001 to .004 (sr^2 was above minimum detectible effect in the regressions for work time and family time, but below minimum detectible effect in the regressions for personal time and sleep time). The interaction term was not significant for the combined nonwork time regression but was in the expected direction, $B = -.05$, $p = .145$, $sr^2 = .001$. The interaction was also not significant in the "other activities" category $B < .01$, $p = .906$, $sr^2 < .001$. Overall, however, this pattern of results was consistent with our central hypothesis, which predicted a negative interaction between current time allocation and time frame.

In addition, participants planned marginally more time for nonwork life in the distant future condition compared to those in the near future condition, B = 1.16, 95% CI [-0.04, 2.36], p = .058, sr^2 =.001. The mirror effect in future work time was not significant: B = -0.16, 95% CI [-01.02, 0.70], p = .714, sr^2 < .001. These findings suggest there is relatively weak support to our derived hypothesis, and that if anything, Americans may plan more nonwork, but not necessarily less work time in the distant vs. near future.

Moderation effects of demographic factors: age, gender, and parental status. The nationally representative sample allows us to investigate our hypotheses across different demographic subpopulations. We repeated all regressions listed in Table 5 but included additional demographic predictors (age, gender, parenthood). We chose to include age and gender because these factors were nationally representative in this sample; we also included parental status to test the potential moderating effect of parenthood, especially given that current time allocated to family time was more extreme among parents than among non-parents.

Specifically, for each outcome variable, we performed a regression including all predictors in the original regression shown in Table 5 (current time allocated to the time category, time frame, and their interaction, coded as before), the additional main effects of 3 demographic factors: age (mean centered), gender (male = -.05, female = .05) and parenthood (non-parents = -.05, parents = .05), as well as all 2-way and 3-way interactions between each demographic factor. Results are listed in Table 6.

Table 6. Regressions Predicting Future Time Allocation to Work, Family, Personal, Sleep, "Other" Activities, and Nonwork Life Combined in Study 3, Employing Interaction Tests with Demographic Variables

Predictors	Work	Family	Personal	Sleep	Other	Nonwork life [a]
Current time (C)	0.71**	0.79**	0.71**	0.76**	0.67**	0.67**
Time frame (T)	-0.14	0.29	0.33	0.11	-0.70	0.79
C × T	-0.16**	-0.13**	-0.07*	-0.07*	0.02	-0.05
Parent	-0.05	3.38**	-1.78**	-0.98*	-1.50**	1.58*
Age	-0.03*	0.04†	-0.02	0.01	0.01	0.03
Gender	-1.47**	1.51**	-0.02	0.77	-0.96†	2.74**
C × Parent	-0.13**	-0.12**	-0.17**	-0.13**	-0.12**	-0.14**
C × Age	0.01**	0.004**	0.004**	0.002	0.003*	0.004**
C × Gender	-0.01	-0.02	-0.02	-0.04	0.05	-0.03
T × Parent	-0.83	1.18	-0.31	-0.33	1.72†	-0.74
T × Age	-0.12**	0.04	0.02	0.05	0.03†	0.10*
T × Gender	-0.57	-0.77	1.57†	-1.31	1.11	-1.04
C × T × Parent	-0.36**	0.11	0.06	0.12†	0.01	-0.003
C × T × Age	-0.004†	0.01**	<.001	-0.001	-0.001	-0.001
C × T × Gender	-0.02	-0.04	0.02	0.02	0.12*	0.05

† $p < .10$. * $p < .05$. ** $p < .01$.

[a] Nonwork combines time allocated to family, personal activities and sleep.

The coefficients in Table 6 indicated that, even after demographic factors were controlled for, the current time allocation (C) × time frame (T) interaction was still

negative and significant in 4 out of the 6 regressions—except for the regression for "other" activities and nonwork life combined. Thus, the regression results were similar to those that did not include these demographic factors. These findings lend strong support to the central hypothesis for a negative interaction between current time allocation and time frame. With regard to our derived hypothesis, the marginally significant effect of time frame on future nonwork time was reduced to non-significance after demographic factors were considered, B = 0.79, 95% CI [-0.42, 2.10], p = .201, sr^2 = .001. Thus, our derived hypothesis received little support when the distant future is 1-year away.

The regressions in Table 6 also allows us to look into how demographic factors moderated the effects above, that is, how the strength the interaction term between time frame and current time allocation, as well as the main effect of time frame may differ across demographic factors. With regard to our main hypothesis (current time allocation × time frame interaction), this interaction was significantly moderated by parental status in a 3-way interaction in the regression predicting future work time, B = -0.36, 95% CI [-0.50, -0.21], p < .001, sr^2 = .007, and by age when predicting future family time, B = 0.01, 95% CI [0.002, 0.011], p = .003, sr^2 = .002. This means that planning for the distant (vs. near) future provided even stronger impetus for parents to plan future work time in a more balanced fashion, and even stronger impetus for younger individuals to plan future family time in a more balanced fashion.

With regard to the derived hypothesis that planning for the distant (vs. near) future decreases time allocated to work and increases time allocated to nonwork, it was moderated by age: Older participants planned even less time for work in the 1-year vs. 1-month condition compared to younger participants, B = -0.12, 95% CI [-0.18, 0.05], p

< .001, sr^2 = .004, and even more time for nonwork life in the 1-year vs. 1-month condition compared to younger participants, *B* = .10, 95% *CI* [0.004, 0.19], *p* = .041, sr^2 = .001. Parental status did not have a signification interaction with time frame for the work and nonwork categories.

In addition, gender did not have any significant 2-way or 3-way interaction effects except in the regression in for "other" activities, which we refrain from interpreting. These demographic factors also showed other effects not specified in our hypotheses (Table 6). See supplemental materials for a detailed description of these effects.

Discussions

Among a nationally representative sample of workers in Study 3, even with a much shorter time horizon of 1 year in the distant-future condition vs. 1 month in the near-future condition, we observed a pattern of evidence largely consistent with our main hypothesis and with the findings from Studies 1 and 2. The results showed a negative interaction between how much time individuals already spent in the time category and temporal distance of the planning in regressions for future time allocation in most of the time categories. That is, the more time someone already spent in a time category, the greater decrease (or smaller increase) in time they would plan for this time category in the distant vs. near future. These effects were stable after controlling for demographic factors including age, gender, and parenthood status.

However, Study 3 provide much weaker support for our derived hypothesis. Participants only planned marginally more time for life outside of work (1.16 more hours/week, marginally significant) when they considered the distant vs. near future, which was reduced to non-significance after demographic factors were controlled for;

and, we did not observe the complimentary effect in work time (-0.16 hours/week, non-significant). Again, the numbers only add up because participants also planned to spend slightly less time in "other activities" (-1.02 hours/week) for the distant vs. near future.

Beyond verifying that the central results remained stable when holding constant the demographic variables of age, gender, and parental status, Study 3 also demonstrated how the above effects systematically varied as a function of these demographics. While there was as a stronger "putting off balance for later" effect among parents in terms of work time, and among younger individuals in terms of family time, it is difficult to integrate these qualifications into a parsimonious explanation. In addition, all of these moderation results need to be interpreted cautiously given the number of significance tests conducted and the need to confirm such trends in replications.

Overall, there was clear evidence that planning for the distant vs. near future prompted a more balanced time allocation within a time use domain controlling for one's age, gender, or parental status. It is worth noting that when examining current time allocation, parents and non-parents were spending similar amount of time on work, and on nonwork life in general, but parents were spending more of their nonwork time on family and less on personal activities and sleep compared to non-parents. If we had just focused on time allocation between work and family, these nuances would have been lost, making it more difficult to detect the robustness of the preference for balance in the distant (vs near) future. This reinforces the importance of adopting a more expansive view of nonwork life that is not focused solely on family, and how doing so allows for the identification of a more general planning preference that operates similarly amongst different subpopulations where the form of the balance is distinct by domain.

General Discussions

When people find themselves over (under) invested than the average person in how much time they currently spend in a particular domain, they can plan to readjust this allocation in the future to reach a greater balance. Across three studies with diverse samples, we found that people were more likely to put off such adjustments for later. That is, rather than seeking a more moderate allocation for the subsequent month, people exhibited significantly more moderate time allocation adjustments when making plans on a more distant horizon—whether it was one, five, or ten years into the future.

This effect was detected fairly consistently across the five different time use domains we predicted (work, family, personal, sleep, and combined nonwork life) with some minor variations across studies. Specifically, the main hypothesis was confirmed for all the domains we predicted in Study 1 (except sleep), Study 2 (except personal time and mixed results by time horizon for sleep), and Study 3 (except for the combined nonwork category). Moreover, the propensity to put off balance for later generalized across demographic sectors of different age, gender, and parental status.

Notably, while one's stage in the life cycle and gender roles might constitute barriers to achieving balanced (moderate) time allocations, the current paper identified a more fundamental tendency that appeared to operate across a wide variety of individuals based upon their situations in current time allocations.

We found varying support for a derivative of this main hypothesis in the "overworked Americans" context, where we predicted that planning for the distant instead of the near future would prompt a preference for less time spent working and more time spent on nonwork life. Only for the 10-year time horizon condition in Study 2

did we obtain statistically significant effects for this prediction in both work and nonwork life. In other studies, there was partial support for an increase in nonwork time but little support for a decrease in work when comparing a distant future vs. a near future.

The current research provides several new insights to our understanding of how the time horizon of planning influences preferences for time allocation. Construal Level Theory (6, 7) makes a clear prediction that people will choose to allocate their time to more desirable activities in the distant rather than near future. However, the present findings showcase the desirability of *moderate* time allocations (compared to average population) promoted by a distant rather than near future time horizon. Furthermore, the present studies point to the value of using construal level theory to studying time use among adults, precisely because planning is a key mechanism for achieving work-life balance.

It is important to point out that our conceptualization of what balance means in time allocation is that people differ on the existing kind of imbalance they experience in their present lives. That is, not everyone who has issues balancing their time allocation is experiencing a lack of family time and an excess of work time. In fact, some may experience the opposite problem in their life. Therefore, restoring a desirable balance entails different kinds of time shift for different people. Because actual time allocation can vary significantly across individuals, the effect of temporal distance on planning time allocation will correspondingly vary depending on whether someone is currently over (under) investing in any life domain. It would be fruitful for future research to disentangle the differential effect of temporal distance on time allocation across a wider set of demographic and occupational segments of the population, such as stay-at-home

parents, or salaried vs. hourly workers, as they may have different types of time imbalances across different life domains.

A related key insight supported by the present approach is the importance of examining multiple domains of time allocated to nonwork life—not just family. For example, in Study 3, we found that for a typical week in current life, working parent and working non-parents did not differ in their time allocation between work and nonwork in general, but displayed different patterns of time allocation within nonwork life across different kinds of activities. Parents and non-parents also responded similarly to the temporal distance manipulation in terms of allocating time between work and nonwork life after current time allocation was held constant, demonstrated by the lack of significant parenthood × timeframe interactions. By examining a range of time categories within nonwork life as a whole, we garnered insight into preferences for balance among parents and non-parents that might otherwise been masked or misconstrued with less fine-grained assessments of time allocation across domains.

One potential critique about the putting-off-balance-for-later effect is a concern that it might be produced by regression to the mean. For example, respondents sampled on a week that was especially work intensive would not be expected to carry over this workload to the next week; therefore, the more time one currently spent at work, the greater reduction in work time one would indicate for a future week. We want to clarify that this explanation cannot account for our effect. Because we adopted a between-subjects experimental design, the difference between the distant future and the near future conditions was a comparison between different groups of individuals instead of two occasions of measurements within the same individuals. Thus, even if participants

showed extreme work hours for the current time allocation measure, regression to the mean will predict that they should show less extreme work hours at a future time point compared to the current time point, but not how extremeness of the first measure (current time allocation) affects the relative change between two other measures (distant future vs. near future) across two different groups of people. Thus, the experimental effect cannot be accounted for by regression to the mean.

Finally, it is important to highlight that our findings were restricted to the *plans* people make about their future time. Whether people will implement their own plans for their future on a one-month, one-year, five-year, or ten-year time horizon when the time comes remains an empirical question.

Given that even the best plans need to be implemented to have any effects, the most useful application of the current findings could be in the use of future lock-in of these time allocations (35). One promising area to leverage the putting-off-balance-for-later-effect may be in how organizations set up and implement policies on work-life balance. For example, to help employees reach their long-term goal of greater balance in time allocation, organizations should seek to implement tools that allow employees to pre-commit to long-term time allocation plans, such as pre-committing to parental leaves or the use of vacations days. Such efforts may prove to be a much more effective tool to promote work-life balance for the employees, and therefore, cultivate and build more sustainable organizations for employees over the long run (36).

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Appendix

Work Involvement Scale

(Adapted from Kanungo 1982)

Please rate the following statements about WORK on a 7-point scale, from 1 “Strongly Disagree” to 7 “Strongly Agree”.

1. The most important things that happen in life involve work
2. Work is something people should get involved in most of the time
3. Work should be only a small part of one's life *
4. Work should be considered central to life
5. In my view, an individual's personal life goals should be work-oriented
6. Life is worth living only when people get absorbed in work

*Reverse coded

Family Involvement Scale

(Following Rothbard & Edwards, 2003)

Please rate the following statements about FAMILY on a 7-point scale, from 1 “Strongly Disagree” to 7 “Strongly Agree”.

1. The most important things that happen in life involve family
2. Family is something people should get involved in most of the time
3. Family should be only a small part of one's life *
4. Family should be considered central to life
5. In my view, an individual's personal life goals should be family-oriented
6. Life is worth living only when people get family in work

*Reverse coded

Time Allocation Questions

Study 1.

Current Time Allocation

In a typical week, how much time do you invest in activities mainly directed towards each of the following life roles? [Note: The numbers must total 168 hours, the total number of hours in a week].

As an example, if you work 8 hours a day on work during week days and 0 hours for work on the weekend, you spend 40 hours on work. If you sleep for 8 hours each night for 7 days a week, you spend 56 hours on sleep.

_____ Work *

_____ Family*

_____ Personal

_____ Sleep

_____ Other activities

* The order of these items was counterbalanced

Future Time Allocation

Now, in a typical week *1 month from now / 5 years from now*, how much time will you invest in activities mainly directed towards each of the following life roles? [Note: The numbers must total 168 hours, the total number of hours in a week].

(Remaining part of the future time allocation question was the same as the current time allocation question)

Study 2.

Explanations for each time category as used in the survey

- Work (time spent on any work-related activities) *
- Family (time spent with family members, on household chores, and other family-related activities) *
- Personal (time spent on your own needs, e.g., self care, socializing, leisure etc.)
- Sleep (time spent sleeping)
- Other activities (time spent on activities that do not fit in the above categories)

* The order of these items was counterbalanced

Study 3.

Explanations for each time category as used in the survey

- work (time spent on any work-related activities) *
- family (e.g., time spent with kids and other family members, household chores etc.) *
- personal (activities devoted to your own needs, e.g., self-care, social activities, hobbies & leisure etc.)
- sleep (time spent sleeping)
- other activities (any activities that do not fit in the above categories).

* The order of these items was counterbalanced