

## **Making seconds count: when valuing time promotes subjective well-being**

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### **Abstract**

Time is a finite and precious resource, and the way that we value our time can critically shape happiness. In this article, we present a conceptual framework to explain when valuing time can enhance vs. undermine wellbeing. Specifically, we review the emotional benefits of valuing time *more than* money, and discuss the emotional costs of valuing time *like* money. Lastly, we suggest directions for future research examining the causes and consequences of the value that we place on our time.

## Introduction

How much is our time really worth? Recent research suggests that people possess an internal ‘time-value’ that shapes the trade-offs they make between time and money [1\*,2\*\*,3\*]. Indeed, the value that individuals place on their time shapes major life decisions such as whether to choose a higher paying career that demands longer hours (vs. making less money and having more free time) and more mundane decisions, such as whether to spend a Saturday afternoon cleaning (or paying someone else to do it). In this article, we discuss how the value that people place on time can shape decision-making – with downstream implications for how much life satisfaction, positive, and negative mood they experience (‘subjective well-being’; [4]).

Broadly, there are two common ways that people value their time – valuing their time *more than* money or valuing their time *like* money. To understand when valuing time can help versus hinder happiness, we propose a simple conceptual framework as follows (see Figure 1): valuing time more than money should promote subjective well-being by activating the component of the human motivation system associated with self-transcendent values (e.g., [5\*]), such as prioritizing other people. For example, people who value time over money show greater proclivity to foster social connections [5\*,6]. By contrast, valuing time like money should undermine well-being by activating the component of the human motivation system associated with self-focused values (e.g., [7-9]), such as prioritizing personal achievement. For example, people who value time like money are less likely to engage in pro-social and pro-environmental behaviors like volunteering [8] and recycling [9]. Using this framework as a foundation, we will describe the benefits of valuing time over money, discuss the psychological costs that can result from valuing time like money, and conclude with a discussion of future directions.

## Benefits of valuing time *over* money

Recent research suggests that prioritizing time over money is linked to greater subjective well-being. In one paper, respondents were asked whether they would rather have more time or more money. Across studies, 63% of respondents (2780 of 4413) valued money over time, yet those who valued time reported greater well-being – even after controlling for relevant demographic characteristics such as how much money respondents earned and how pressed for time and money they currently felt [1\*]. In a separate paper, respondents were presented with brief descriptions of two people who either prioritized time (Taylor) or money (Morgan). Respondents who reported that they were generally ‘more similar to’ Taylor versus Morgan reported experiencing greater life satisfaction, more frequent positive emotions, and less frequent negative emotions [2\*\*].

Across both papers, respondents who valued time over money were happier in part because they were more likely to spend time in ways that promote happiness (see [10\*\*] for a recent review on time-use and happiness). People who valued time over money made consumer decisions that enabled them to have more time – such as choosing a direct vs. indirect flight, and parking at a closer, more expensive parking lot as opposed to a further, cheaper parking lot [2\*\*]. People who valued time over money also spent more time investing in relationships. For example, students who valued time over money spent 18% more time socializing with a new peer in the lab [6]. This research suggests that the relative value that people place on their time vs. money can fundamentally shift time-use – by encouraging individuals to make everyday decisions that are more consistent with self-transcendent values, such as spending time forging new social connections with their peers versus working.

Recent research also suggests that the relative value that people place on time vs. money

represents an orientation that is stable over 2-week, 3-month, and 1-year intervals [2\*\*,11]. Thus, valuing time over money also shapes the happiness that people experience over the course of their lives. For example, in a recent study, researchers asked senior college students to report whether they valued time or money. Two years following graduation, researchers followed up with these students and asked them to report on their happiness and current career choices. Students who valued time more than money before graduation were happier two years later, in part because they made career decisions more for intrinsic vs. extrinsic reasons [11]. These studies suggest that the chronic orientation to value time more than money can shape both minor and major life decisions, with implications for long-term trajectories of happiness.

These findings are also broadly consistent with research showing that simply thinking about time can produce similar effects of socializing more and working less [5\*,12,13] and that thinking about time can encourage people to engage in moral behaviors [14]. For example, researchers found that people who were primed to think about time cheated less during a lab task as compared to individuals who were primed to think about money. These findings were explained by the fact that time-focus promoted self-reflection – such as reflecting on who one is and behaving so as to maintain one’s positive self-image, whereas money-focus promoted self-interested behaviors – such as seeking personal goals and being less helpful to others [14]. Returning to our conceptual framework, when valuing time encourages self-transcendent behaviors, valuing time over money can facilitate greater subjective well-being (Figure 1).

### **Costs of valuing time *like* money**

The value that people place on time does not always have positive consequences. Thinking about the *economic* value of time is associated with self-focus and can encourage activities that undermine well-being. People who think about how much money their time is worth spend significantly less time socializing with friends and family and significantly more time socializing with colleagues (Lee-Yoon A, Whillans AV, unpublished), spend less time volunteering their time for free [8, 15\*,16], and are less likely to perform simple acts of environmental behavior [9].

To illustrate the pervasive effects of thinking about the economic value of time, researchers surveyed a large sample of hourly and non-hourly workers. In this study, hourly workers spent 36% less time volunteering in a year than non-hourly workers, even controlling for number of hours worked, marital status, number of children living at home, age, household income and other relevant demographic characteristics [17,18]. People who are paid by the hour (vs. those who are not) tend to spontaneously think about the financial value of their time. Specifically, when people are asked to think about the economic value of time, they adopt a mindset focused on maximizing productivity, which increases impatience and even diminishes the meaning people derive from their work – increasing psychological stress [20-22]. In sum, when the economic value of time is salient, people become self-focused, undermining social and prosocial behaviors, with negative downstream implications for subjective well-being (Figure 1).

### **Future directions**

Throughout this article, we have discussed the well-being benefits of valuing time over money, as well as the costs of thinking about the financial value of time. Yet, more research is needed to understand the boundary conditions of these findings. It is possible that people might experience greater happiness when their behaviors (i.e., socializing or working) fit with their underlying values (i.e., valuing time over money) or how they think about their time (i.e.,

whether they think about the economic value of time or not). In fact, people reap the greatest happiness from daily decisions when these decisions match their personality [23]. For example, research suggests that introverted people are happier when they buy books versus spend money at bars [23]. Thus, prioritizing money more than time might not be inherently harmful, but instead our happiness is likely to depend on the “fit” between our underlying values and behaviors.

Because valuing time over money is a crucial factor that can shape happiness, research should also examine the generalizability of these findings across socioeconomic status and cultural contexts. Past research has focused exclusively on individuals living above the poverty line, and research looking at time and money trade-offs in the context of resource scarcity is needed. Individuals pay most attention to scarce resources [24,25]; therefore, higher SES and time constrained individuals might benefit most from valuing time over money, whereas lower SES and financially constrained individuals might benefit most from valuing money (see: [26]).

It is also plausible that people living in collectivistic cultures might benefit more from valuing time over money because their cultural values are focused more on interpersonal relationships and inciting group harmony, such as spending more time with friends and family and integrating those relationships into one’s identity (e.g., [27]). By contrast, people living in individualistic cultures may not benefit as much from valuing time over money, because their cultural values emphasize focusing on personal pursuits, like working and earning money. Busyness and lack of leisure time are perceived as higher status symbols in North America [28] – suggesting that Americans might gain greater happiness and social validation from valuing money more than time as compared to individuals living in other cultural contexts.

This article has focused on two ways that people value time – valuing time over money and thinking about the economic value of time. Yet, people can also think about their time as a scarce resource. Previous research has argued that thinking about time as scarce decreases happiness (e.g., [29]). Other research finds that time scarcity increases happiness [30,31]. For example, when college students were asked to live as if it was the last month in their city, they savored moments more and experienced greater well-being [30,31]. Future studies should seek to clarify these seemingly disparate findings by better understanding when time pressure (the momentary feeling that you do not have enough time to do all of the things you want to do) and time scarcity (the broader feeling that time is running out) result in discrepant outcomes.

A recent theoretical paper has presented the idea that an elevated perspective of time – which integrates the past, present, and future on an equally visible level – may reduce the time pressure, stress, and guilt that can arise from the feeling that one cannot do everything right now [32]. Future work could test whether people who feel as if their time is scarce or who value time more than money are more likely to take a ‘birds-eye’ perspective, explaining why people who feel as if their time is scarce (in the absence of feelings of time stress) or people who value time more than money are happier – they might be better able to translate time scarcity into savoring.

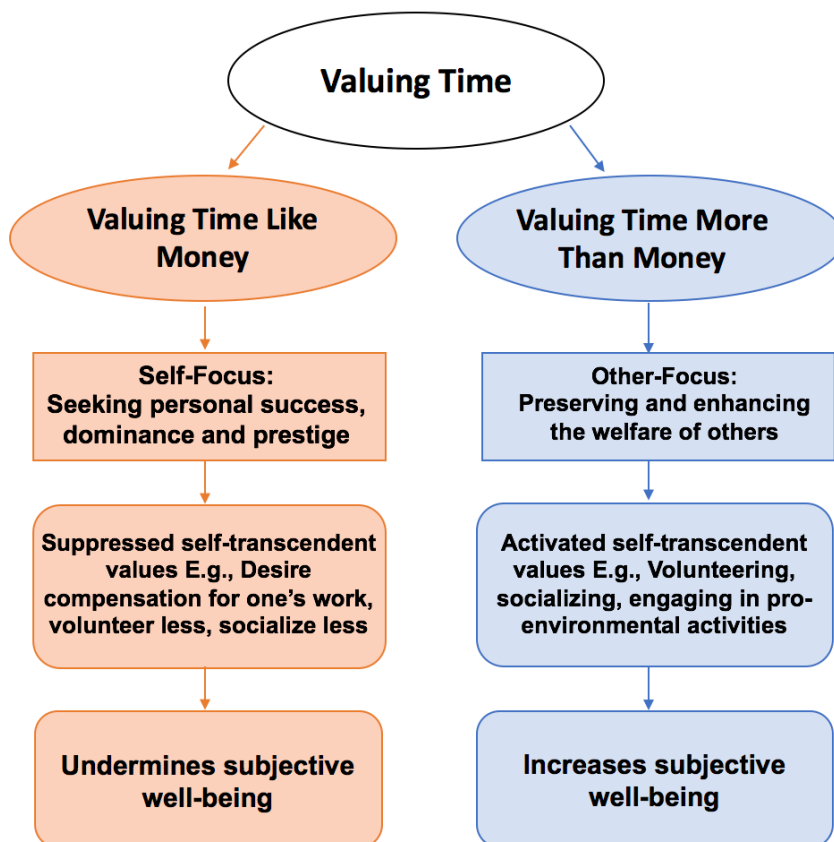
Future research should also refine the measures used to assess the value of time. Measuring individual time value is challenging using traditional survey methods, because these methods often involve hypothetical scenarios which are not reflective of real-world trade-offs. To overcome this limitation, researchers have started to develop incentive compatible measures of the value of time. In these measures, participants are sent a text message prompting them with a randomized time commitment and payment amount (Belal S, On R, West C, Whillans AV, unpublished). Respondents are then asked to accept or decline the task. From the wage people accept, researchers can infer the underlying value of their time. Initial results using this measure

suggest that the value of time varies depending on critical factors such as the perceived availability of work (Belal S, On R, West C, Whillans AV, unpublished). Studies using incentive compatible measures will help to validate research examining how self-reported measures of time value can shape major and daily time-use decisions, and further uncover the situational factors that shape the value that people place on their time.

## Conclusion

This article has examined how the ways that we value our time can shape time-use and contribute to subjective well-being. We presented a framework (Figure 1) showing that when valuing time leads to other-focused mindsets, valuing time can promote well-being. In contrast, when valuing time leads to self-focused mindsets, valuing time can undermine well-being. Future research should seek to understand the individual and cultural factors that shape both (1) how we come to value our time and (2) how the value we place on our time shapes happiness.

**Figure 1.** Conceptual framework showing how valuing time more than money enhances well-being, whereas valuing time like money undermines well-being.



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