The Role of Subjective Construals on Reporting and Reasoning about Social Media Use

Angela Y. Lee, Roberta Katz and Jeffrey Hancock

Abstract
The ways people estimate and make sense of the time they spend with social media should be influenced by the subjective construals that they draw on to guide their perceptions and behaviors on social media. Through qualitative analysis of 60 interviews, we identify how subjective construals of social media can influence two distinct processes relevant to the study of social media effects. First, we find that the process of estimating and self-reporting time spent on social media is influenced by differences in how people construed “social media” in field-standard questions. Conceptual variability in definitions of “social media,” aggregated time spent across multiple sessions and platforms, and perceived norms about use affected their responses. Second, we find that participants’ reasoning about the role of social media in their lives revolved around two key construals about the valence of its effects (positive vs negative) and their perceived agency relative to social media (being in control vs subject to control). People who felt in control of their use also viewed social media more positively, and those who felt controlled by social media viewed it more negatively. These conceptualizations of the nature and effects of social media use—which we discuss as social media mindsets—were closely tied to behaviors and outcomes. These two findings have fundamental implications not only for survey methodologies in social media research but also for how we conceptualize the relationship between social media use and psychological outcomes.

Keywords
social media use, conceptual variability, subjective construals, mindsets

Introduction
The emphasis in social media research, especially in the context of its effects on well-being, has often been on measuring how much time people spend online or how frequently they use social media (Reeves et al., 2020). This approach, however, may be strengthened by considering the subjective beliefs people hold about social media use (Best et al., 2014; Hancock et al., 2019). While we know that people are spending substantial amounts of time on social media (Nielsen, 2018; Perrin & Anderson, 2019), we should also consider the following: How do people think about the time they spend on social media?

Understanding how people report and reason about time spent on social media can help us better understand its effects on individuals’ lives. Collectively, the beliefs, attitudes, and perceptions of social media that comprise this understanding can be conceptualized as subjective construals, which refers to the mental models people form and draw on to guide their perceptions and behaviors (Griffin & Ross, 1991). Extensive psychological literature demonstrates how such construals can have powerful effects on our reality—changing how we think about ourselves, others, and the objects in our environment (Haidt, 2001; Ross & Nisbett, 1991; Walton & Wilson, 2018).

This study investigates how subjective construals of social media can influence two distinct processes relevant to the study of social media effects: (1) estimating time spent on social media and (2) reasoning about its impact on their lives. The process of estimating use involves calculating self-reported use in response to questions like “How much time do you spend on social media?” In contrast, the process of making sense of the effects of social media use involves reasoning about the nature of social media (e.g., “What is the impact of social media use on your life?”). We use qualitative methods informed by grounded theory to guide our

Stanford University, USA

Corresponding Author:
Angela Y. Lee, Department of Communication, Stanford University, Building 120, 450 Serra Mall, Stanford, CA 94305, USA.
Email: angela8@stanford.edu
analysis of 60 interviews with social media users (Strauss & Corbin, 1997).

**Subjective Construals and Social Media**

Social psychologists contend that all individuals bring some element of subjectivity to their understanding and interpretation of the complex, highly social world that we live in. As Griffin and Ross (1991) write in their paper defining subjective construals,

> People are not governed by the passive reception and recognition of some invariant objective reality, but by their own subjective representations and constructions of the events that unfold around them.

Although they may not be aware of it, people are constantly advancing “working hypotheses” about the meaning of their experiences with objects in our environment—including those in the digital environment, such as social media (Walton & Wilson, 2018). These **subjective construals** serve as mental models or representations used to “perceive, comprehend, and interpret the world” (Griffin & Ross, 1991). Critically, people can hold construals at various levels: While some are relatively granular, semantic, and transient (e.g., “What is the meaning of this term in a questionnaire?”), other construals can be more holistic, conceptual, and enduring (e.g., “How do I interpret the effect of stress on my body?”) (Schober et al., 2018; Walton & Wilson, 2018).

Differences in construals have been found to meaningfully affect behavior in both classical psychological studies and recent research on human–computer interaction (HCI). One powerful demonstration was an experiment that asked pairs of participants to complete the prisoner’s dilemma task where they could choose to “cooperate” or “defect” from their partner, with half of the participants telling that this was the “The Wall Street Game” and the other half “The Community Game” (Liberman et al., 2004). By changing the label, experimenters changed how participants construed the meaning of the game, with pairs playing the Community Game cooperating twice as often than those playing the Wall Street Game. Because “Wall Street” and “Community” activate associations of optimizing personal gain versus communal sharing, these labels changed how participants construed the nature of an ambiguous task and subsequently influenced their behaviors.

Research in HCI has examined how construals can affect individuals’ cognition and behavior in relation to technology. While traditionally discussed in the context of design, the concept of **individual sensemaking** emphasizes the need to understand how people form “meaningful representations” of the sociotechnical systems they interact with (Russell et al., 1993). Work on sensemaking in social media, for example, has examined how people engage in the active process of constructing “narratives” around their interactions with social media (Tiidenberg et al., 2017).

The effects of differences in construals of social media have been further explored in work on “folk theories,” which are the mental representations that people use to make sense of how features like newsfeed algorithms work to present content (DeVito et al., 2018; Eslami et al., 2016; French & Hancock, 2017). Because everyday social media users do not have access to the technical information needed to fully understand the workings of opaque “black-box” algorithms like newsfeed recommender systems, they come to construct and hold intuited theories to “explain, interpret, and intervene” in the world around them (Gelman & Legare, 2011). For example, some people held that their Facebook newsfeed reflected their personal engagement with content, others believed that the algorithm privileged particular formats of content, and still others reasoned that what they saw was a reflection of the most globally popular content (Eslami et al., 2016). Differences in how people construed the workings of the newsfeed influenced their behavior, such as how they presented themselves and engaged with content on social media. This work suggests that understanding the processes of how people conceptualize social media systems may shed light on the determinants of their behavior.

In addition to examining how people think about the workings of social media systems that are fundamentally external to the self, it is also necessary to understand how people think about the role of social media use within their own lives. To better understand how social media use relates to psychological dynamics such as self-presentation and well-being, we should also examine how individuals construe the meaning and effects of their own social media use.

**Reporting on and Reasoning about Social Media Use**

Questions about the impact of social media use on outcomes, such as well-being, often require participants to complete the cognitive tasks of estimating the time they spend on social media and reasoning about its role in their lives. While these two processes are generally discussed as distinct and dissimilar, both can be influenced by differences in construals.

The process of estimating social media use in response to field-standard questions like “How much time do you spend on social media in a regular day?” generally requires participants to search their memory to generate a numerical approximation of their social media use. However, recent research suggests that such self-reports are imprecise. In their meta-analysis of 106 effect sizes, Parry et al. (2021) found that self-reported media use was only moderately correlated with computer-logged measures of media use and rarely an accurate reflection of actual time spent on media. Ernala et al. (2020) found similar results in a study of estimation errors between self-reported and actual time spent on Facebook, noting that participants tended to significantly overestimate time spent on social media.
One potential explanation for these discrepancies may lie in differences in constrictuals. Previous work on conceptual or interpretive variability found that people often construe the meaning of seemingly ordinary terms and expressions in surprisingly different ways (Schober et al., 2018). Decades of research on refining survey design in quantitative methodologies holds that such variability at the item level can influence participants’ responses, with implications for data quality (Krosnick, 2018; Visser et al., 2000). In a striking example, differences in how participants construed the meaning of “smoking cigarettes” (i.e., as finished cigarettes, partially smoked cigarettes, including or not including cigars or clove cigarettes) changed their self-reported estimates of how much they smoked.

In the domain of social media, prior work has identified meaningful variation in how scholars and users alike define the term “social media” (Carr & Hayes, 2015; Ellison et al., 2014). These differences in definition have been shown to influence people’s perceptions and engagement with social media. For example, a recent study by Rhee et al. (2021) found that differences in people’s lay definitions of the term “social media”—such as how “social” they perceive a given platform to be—can shape how they perceive that platforms’ social affordances and resources.

Beyond variance in definitions, differences in subjective construals can also influence the process of reasoning about the role of social media in one’s life. Previous studies on beliefs about the perceived harms and benefits of social media use have found that these construals can be self-fulfilling. People who viewed social media as an effective means to gratify their needs tended to use social media in different ways than those who viewed it as “mindless” or useless (Cho, 2013; Rauniar et al., 2014; Wang et al., 2012). Indeed, people who endorsed the narrative that social media use is highly addictive reported adverse mental health outcomes; meanwhile, people who perceived more benefits from social media use were more likely to use social media in adaptive ways (Clark & Green, 2018; Lanette et al., 2018). This work suggests that how people construe social media use can influence how people approach and respond to social media in their lives.

The Present Study

We explore the role of subjective construals of social media use in two distinct ways. We focused on identifying and examining the subjective factors that shape how people engage in the processes of (1) estimating and reporting their social media use and (2) reasoning about their relationship with social media.

First, we asked participants to talk through their thought process of estimating how much time they spend on social media in response to the question “How much time do you spend on social media on a regular day?” Participants could freely discuss any associations, feelings, or motivations that arose through this process.

RQ1. What are the subjective construals that affect how people calculate and estimate the time they spend on social media?

Next, we probed the construals that shape how people made sense of the time they spent with social media and reasoned about its role in their lives. We were interested in whether there were any consistent patterns in the subjective construals that our participants shared. We expand the literature on social media use by identifying and interrogating the subjective factors that influence how people reason about their social media use. Our second research question was as follows:

RQ2. What are the construals that shape how people reason about the time they spend on social media and their relationship with social media?

Method

Participants and Research Site

Data collection and participant recruitment occurred at three universities in the Bay Area of Northern California, sites with high numbers of young adults who regularly used social media in their everyday lives. We selected these sites as part of a larger study interested in understanding the experiences of individuals in Generation Z between 2018 and 2020 (Katz et al., in press). Participants were recruited through snowball sampling for in-person interviews and were compensated through course credit or payment, depending on their university affiliation. We determined that we had reached saturation after 60 interviews were conducted using principles of inductive thematic saturation, meaning that we were finding consistent support for key emergent themes in our interviews and we were no longer hearing new insights from participants (Saunders et al., 2018). Interview transcripts from these 60 participants comprise the dataset for this study.

The average age of participants was 21 years old. Twenty-nine participants identified as women (48.3%), 27 identified as male (45%), and 4 identified as non-binary (6.7%). Of the participants, 46% were Asian/Asian American, 23% were White/European American, 12% were African/African American, 7% were Hispanic/Latinx, and 2% were Middle Eastern. The length of interviews ranged from approximately 1 to 3 hr, with the average interview taking approximately 90 min.

Procedure and Interview Protocol

We conducted a series of in-depth, qualitative interviews that would allow us to better understand the experiences and
beliefs that individuals had about their relationship with social media. By using a qualitative approach to data collection and analysis, we aimed to create space for individuals to discuss their views and orientations to social media use in their own words and narratives. Interviews were conducted by the first author and two research assistants who were trained on our interview protocol, instructed in asking open questions, and met biweekly with the research team to discuss insights and findings from the data.

The interview began with an icebreaker activity relating to social media use. Participants were asked to discuss items they would include in a hypothetical “starter pack” to describe themselves through visual representations (this activity was modeled after the popular “starter pack” meme from early 2018–2019). For example, participants described themselves using items (e.g., a succulent plant, a teacup, and a set of headphones) or pictures (e.g., a brain, a computer, and a photo of family) that they felt were important to them or captured an element of their identity.

Next, participants were asked to list the different social media applications and platforms that they used, and how much time they spent on each, respectively. They were free to define “social media” in their own terms, with some participants including texting, video-games, and other media. If the interviewer was prompted by participants for more information or more specificity (i.e., whether they should count a particular app as social media, how to think about the role of notifications), interviewers were instructed to encourage participants to trust their intuition and not provide additional instruction.

We then proceeded with the interview protocol. The questions were structured such that questions about specific social media platforms used and time spent on each came first, and broader questions about participants’ views on social media followed. Participants were asked to discuss and describe the attitudes, feelings, and beliefs they had about social media usage. Because our protocol followed a semi-structured interview format, interviewers asked follow-up questions probing individuals’ construals of social media use and how they reasoned about their relationship to social media. In addition, participants could discuss issues they deemed important and relevant to the broader premise of the topic of social media usage. (For a full list of questions asked, see Supplemental Materials.)

After completing the series of questions about social media usage, participants were offered an opportunity to add any additional thoughts they had about the role of social media and technology in their lives. As part of the larger study, they were then asked questions about their values, belief systems, and perceptions of generations. Upon completion of the full interview, participants were thanked, debriefed, and given compensation for their time.

Data Analysis

Interviews were audio-taped with participants’ consent, transcribed using a secure third-party transcription service, and stored on the LabbCat platform after redacting identifying information. Transcripts were checked for accuracy against audio-recordings by the first author. Members of the research team collectively analyzed quotes and observations, wrote memos about their findings, and discussed key themes until consensus was reached.

We used the constant comparison method to identify common themes that emerged from the data. Coding was conducted by the first and second author throughout the data collection process. Our analytical approach was guided by the principles of grounded theory (Charmaz, 2006). We engaged in an iterative process of data collection, focused coding of conceptual categories, and discussion of emergent themes through written memos and meetings. Early conceptual categories included “Beliefs about social media use,” “methods of using social media platforms,” and “questions about social media use calculations.” The first author then read through the corpus of the interview data again completely to identify higher level conceptual key themes. This process included identifying quotes and passages that represented the findings of each key theme and diving deeper into understanding the nuances of individuals’ experience through iterative coding and writing.

Findings

Conceptual Variability in Reporting on and Estimating Social Media Use

While questions like “How much time do you spend on social media on a regular day?” are commonplace in social media research, we found that the process of estimating and self-reporting one’s use was not straightforward for our participants. Four differences in how participants construed “social media use” contributed to uncertainty in their responses. In addition to lacking confidence in their responses, they had to interpret mutable definitions of social media, the aggregation of multiple sessions of use, and norms about how much they should be using social media. We discuss each in turn.

Construing and Defining “Social Media”. Participants varied in how they construed or defined the term “social media,” expressing hesitation around whether they should “count” time spent on particular platforms or activities as part of their reported “social media use.” The processes by which individuals construed social media were often idiosyncratic. For example, participant R005 included using the Messenger application to send messages to their friends as “social media” because the app was linked to Facebook, but decided
that “texting” was not a part of his social media usage because it utilized cell services rather than the Internet. This process of defining inclusion and exclusion criteria for social media was a source of uncertainty for participants, with many looking to the interviewers for clarity or definition. As heard in one student’s uncertainty on including gaming on Messenger as “social media,” navigating this definitional question can be challenging and compound with other sources of variability such as beliefs about norms of use:

Oh god . . . [Including gaming] beefs up [the total time] a little bit . . . Maybe just on my phone, I would like to think, no more than 30 to 45 minutes? Any more than that, and I think I would be surprised at how like condensed time is on my phone. But it could easily be more. I could be under-ballin’ it pretty hard. (R045)

Aggregation Across Multiple Sessions of Use. We also observed differences in how participants aggregated their social media use across multiple sessions of use of varying length, including brief sessions of responding to messages and checking notifications and longer sessions of scrolling through their feed. Some asked questions about whether they should “count” times when social media was running in the background of their devices, when they were multitasking, or when they intermittently picked up their phones throughout the day. As one student said, trying to calculate a “total time” or “average time” of social media usage was a “hard estimate” because many interactions with media “are always, like, seconds at a time” (R045). The challenge of navigating uncertainties around aggregating across multiple sessions of use can be heard in the hesitance of one participant’s answer:

So maybe social media’s around like one to two hours a day, around one to two hours. I guess, because it’s like you know, little tidbits of time, and then it all adds up. (R044)

Individuals had to account for the bursts of time they spend on social media, in addition to drawing their own thresholds for when a session of use was so short that it should not be considered part of their use.

Variable Levels of Confidence. Participants varied in how confident they were in their estimates, with the majority struggling to produce confident answers. In addition to tending to estimate their use within a numerical range (“Something like between one to two hours?” [R015]), many participants needed time to think through their response. This lack of confidence in the results of their estimation was reflected in their language. Not only did they tend to use general references of time and colloquialisms such as “a lot,” they also frequently used hedging and qualifying language such as “I think,” “I guess,” and, most evidently, “I don’t know.” For some participants, the process of thinking through the time they spent on social media elicited reflection and surprise:

Days where I don’t have school and don’t practice, I spend a lot of time on social media. Yes, actually, that’s pretty crazy, I think. I’d say on days where I don’t work out and don’t have class, I’d say I spend like, six hours. (R053)

Norms. Estimates of social media use were also influenced by perceived norms. More specifically, participants frequently commented on how much they used social media relative to how much they thought they should be using social media. For example, some participants expressed that they felt they were using social media far more than they should. Some participants thought about their use relative to their own standards, like R040 stated explicitly:

I can confidently say that I spend more time than I’d like to on social media (R040).

In other cases, however, people’s understanding of normative or ideal levels of social media usage was linked to external sources like others’ opinions (“My boyfriend doesn’t like Instagram, but I do,” R024) and news headlines (“I heard Facebook is super bad for you,” R017). These norms emerged when participants were asked to think through their social media use, often before proposing a numerical estimate of usage. These suggest that social influences, such as personal and external expectations of media use, can shape how individuals calculate and report the time they spend on social media.

When asked to estimate and self-report their social media use, participants had to think through sources of conceptual variability that introduced subjective factors into their calculations. In addition to generally lacking confidence in their responses, conceptual variability in how participants constructed the definition of social media, aggregated time spent across multiple sessions and platforms, and navigated norms about use affected their responses.

Key Construals in Reasoning About Social Media Use

RQ2 aimed to identify how people come to understand the role of social media in their lives and reason about its impacts. Previous work has found that exploring how people make sense of their experiences, such as those with social media, can yield meaningful insights (Bazarova & Choi, 2014; DeVito et al., 2018). In our analysis, we sought to identify the subjective factors that oriented individuals’ understanding toward the impact of social media use in their lives. Our exploration of these factors and beliefs yielded two key themes: construals about the valence of social media usage and their perceived agency relative to social media.

Valence: Is social media enhancing or harmful for me? In our analysis, we noticed that one of the core ways
participants made sense of their social media usage was in terms of its valence: the extent to which social media use had a positive or negative impact on their life. While some participants expressed nuanced opinions acknowledging that social media could be both helpful and harmful, most tended to gravitate toward either a predominantly positive or negative view of social media.

Some participants believed that social media enhanced their feelings of social connection and facilitated their access to new information and entertainment. In line with prior studies on the use of social media to develop social capital, these participants felt that using social media improved relationships and communication across distance—particularly for students who were international or far from home for college (Phua et al., 2017). They engaged in a variety of relationship-maintenance behaviors, such as sharing content, posting photos, tagging in posts or comments, and exchanging a steady stream of conversation on platforms like Messenger and Snapchat throughout the day (R021, R016, R028). Whether they were talking with best friends, roommates, or friend groups of “me and the boys,” social media helped them feel more connected with loved ones and acquaintances—a feeling one student described as more “integrated” into the lives of others (R016). Describing how different platforms helped them fulfill different relational needs, one student said,

I’m friends with parents, and friends, and adults I’ve met in various places, and people I met when I was living in France, and stuff like that . . . so I definitely use it to connect with people without having to really talk to them much. But also, I use it to connect kind of constantly with friends that I see every day, or friends that I don’t even see every day, but I like to maintain a constant channel of contact with. (R018)

One of the primary factors that contributed to a positive understanding of social media was the ability to stay in contact with communities separated by great distance. As the above student said, they could stay friends with classmates from other countries. Because they could maintain friendships without “seeing them every day,” they could feel “constantly connected” with more people (R018).

In addition to improving or maintaining existing relationships, participants also felt that using social media helped them find and maintain new meaningful connections. A few talked about meeting significant others on social media (“Just to attest to the power of Instagram or social media, the last girl I dated, we got into a relationship over Instagram.”[R018]), and many talked about how they were able to connect with like-minded others through online communities that catered toward interests ranging from general humor and school groups to emotional support groups and niche academic memes (with names like, “Linguistics Shit Posting” and “Dopa-memes for Reward-Seeking Teens”). As one participant recounted his involvement in the Facebook group NUMTOTS (New Urbanist Memes for Transit-Oriented Teens), social media allowed a group of people with a very niche interest to come together and revel in shared humor, discussion, and community:

Because it’s such a niche topic, people who are interested in these things I feel like don’t have opportunities in real life to talk about it. [The Facebook group] is shockingly active and shockingly engaging, it’s really cool . . . See, like it is at its heart, an interactive group. You are trying to connect with other people and creating content that other people will find funny. (R016)

In addition to facilitating personal enrichment and interpersonal belonging from participating in groups and communities, participants viewed their social media use as a meaningful way to learn about interests and to seek entertainment.

In contrast, people with a more negative understanding of social media focused on how it closed down their world by being either boring or harmful. Some felt that social media did not provide them with useful content or fulfill their goals. For example, one student who described his overall orientation to social media as negative gave the following explanation:

I just kind of dick around on Facebook, see what’s going on, if there’s anything. I spend less and less time on it because it’s just kind of boring . . . People post videos that are meaningless, that make no sense . . . I’m like, “Why do I need to see this?” (R038)

While participants with a positive view of social media enjoyed seeing others’ lives and sharing about their own, this participant felt social media was a “meaningless” waste of time because the content did not fit his needs or interest. Later, however, this student mentioned how he enjoyed following Facebook pages about physics and astronomy—two of his favorite interests. Although he felt that these were personally engaging and intellectually stimulating, he then returned to the social content of Facebook to explain why his general understanding of the site was negative:

A lot of my friends from [city] are really conservative and they post the most horrendous, false things that you know it’s false, but they still share it. Seeing it kind of makes me feel like I’m participating in the spread of bullshit . . . I do not want to see this anymore. (R038)

In this case, being exposed to problematic content shared by others made him feel so bad that he no longer wanted to spend time on Facebook. Though he acknowledged that there were particular uses that brought him happiness, his overall experience was dominated by meaningless or concerning content which shaped how he came to understand social media in general.

Other participants voiced similar reasons for believing that social media was harmful. For some, social media did
not serve any useful purpose in their lives or connect them to people or content they found meaningful. They viewed social media as a “waste of time,” and social media use was thus conceptualized as harmful by taking time away from other pursuits perceived as more productive. Although not perceived as actively harmful—such as the above students’ experience viewing “tawdry, false” content—these people felt that the time they spent on social media was depriving them of other, perhaps more meaningful experiences. One student described this feeling:

I feel like sometimes I need a break from all of . . . social media. So sometimes I’ll leave the app for a couple of days, because I feel like I need to focus more on my assignments or other things. It’s time-consuming to think about it. (R046)

Some students also held a negative understanding of social media because it affected their priorities. For those who viewed social media as a place to share their life and present an “idealized” or “beautiful” version of their lives, the perceived need to maintain a social media presence could detract from their ability to enjoy in-the-moment experiences. One participant raised this theme in explaining why she chose to delete her Instagram:

Even in the small ways . . . you’d be with your friends or something and like, “Oh, this would be a good picture,” and it kind of draws the focus away from what you’re really doing. (R001)

Overall, in our analysis we observe patterns in how people understand social media as helpful versus harmful, which we describe as positive and negative valence construals of social media. While some people see social media as a positive force in their life that improves their relationships and communication, others see social media as negative force that wastes their time and can pose direct harm to their quality of life.

**Perceived agency: Do I control social media or does it control me?** We found that an important construal of social media revolved around their perceived agency relative to social media. While some participants viewed social media as a tool that they controlled, others viewed social media as something that exerted control over them. Interestingly, these were meaningfully related to their valence construals—such that participants who felt in control of social media also tended to view it as enhancing, whereas those who felt controlled by social media viewed it as harmful.

Some participants felt that they had difficulty controlling their social media use and viewed themselves as subjected to the influence of social media. Describing their use with terms like “mindless” or “dependent,” they often recounted feelings of worry, shame, disappointment, or surprise over “losing control”—particularly in regard to time spent on social media:

Sometimes I’m on my phone and I forget the time. So maybe I’ll spend probably two hours or an hour, and then I notice, and then I’m like, whoa, I think I need to do something else. (R046)

These individuals reported feeling like they had little control over what they were doing on social media and how long they were doing it, often noted in association with passive use of social media to browse content. They perceived their own actions as thoughtless and tended to comment on how easy it was to get “sucked into” the “endless scroll” present on popular feed-based sites like Facebook and Instagram:

Like yesterday, I got home from work, and I was on my phone for about two and a half hours. I didn’t even really realize, like how kind of, what kind of rabbit hole it gets you through and how much time it can cut back . . . It’s kind of challenging because I always have [social media] and I can definitely use it before I go to bed up until I fall asleep sometimes. (R040)

Common themes include a feeling of realization that they had spent too much time online, followed by the perceived need to cut back despite feeling that this would be difficult. Numerous participants who felt they did not have control over their social media use talked about how they attempted to reduce their use, only to be discouraged and upset when they found the task challenging. One student shared how she tried to delete her social media apps on her phone because she felt like she was spending too much time on them:

At the back of my mind, even I knew when I’d spend that long on Facebook—it probably wasn’t good, but I was just doing it. It was definitely habit . . . I just began to notice how I didn’t like how much time I was spending on it, so I’d move the Instagram app to the back page [of my smartphone] and my finger would just automatically go there and click it. And even when I just closed the app, I would automatically click it again if I didn’t have the conscious thought of what to do next, which is really freaky. (R001)

This threat to one’s sense of self-efficacy was often described in the language of addiction. While sometimes explicitly stated like, “Facebook’s the worst, but I’m kind of addicted to it” (R017), it was also characterized by the use of language revolving around the construal of the “mindlessness” of their use and “dependence” on social media.

A key caveat is that we noticed that beliefs about personal agency relative to social media did not appear to be clearly associated with amount of use. Previous work on problematic use and addictive use has included an element of excessive social media use, such as simply spending too many hours online (Andreassen et al., 2012; Caplan, 2002). However, in our interviews, we found that participants’ understanding of problematic or addictive use was instead driven by perceptions of whether they used social media intentionally or not. One international student who described himself as a “heavy Internet user” estimated that he spent
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one student said, 

lot of news headlines about how "Facebook is bad for you," they utilized social media. After talking about how he saw a highlight how its effects on them were dependent on how 

and gratify their needs across different contexts. Notably, this could involve using different platforms for different purposes: 

Honestly, I think of technology is a good thing . . . Facebook, I mostly look at it as a way to get news, to get information of something that’s happening around or happening around people’s lives. The same for Instagram . . . is also a place for me to explore photography because I like taking pictures. (R048) 

For these individuals, social media was something empowering that they could choose to use to achieve a variety of personal, interpersonal, and informational goals— ranging from connecting with family across continents, learning photography and photo-editing, and finding news and engaging information. Although they often recognized that social media could be helpful or harmful, they tended to highlight how its effects on them were dependent on how they utilized social media. After talking about how he saw a lot of news headlines about how “Facebook is bad for you,” one student said, 

I don’t think it’s at fault to be honest, like it really depends on the person. How the persons spends his or her time. Technology can be a tool to divide people, but I find that technology brings me to people too. Most importantly, because my parents, they are on the other side of the planet and I get to send them a text once in a while . . . So I would say technology is a good thing. (R048) 

Rather than attributing the effects of social media to the technology itself, people who held “high agency” construals of social media viewed themselves as agents who were capable of using social media to achieve meaningful goals and needs. 

As such, these individuals were more likely to view the pursuit of entertainment and the alleviation of boredom through social media as useful. Participants who viewed themselves as in control of their social media use were more likely to talk about finding fun, interesting, or engaging content as a valuable need gratified by social media. Although entertainment is not traditionally considered a “goal” that needs to be achieved, it is important to recognize that social media is helping people do something they want to do—which is to have fun. This sentiment is illustrated in the following quotes, both from community college students who described using social media to relax and unwind after their busy daily schedules:

Mostly I like looking at funny pictures and talking to friends. That’s the biggest part of it. But also catching up with what friends are doing constantly . . . It’s like for fun and funny pictures. (R049) 

I like watching all the videos that they have, like the cooking videos or the ones where they make slime and stuff . . . They’re just fun. (R034) 

Participants also used social media to strategically alleviate boredom to make use of periods of time that would have been otherwise wasted. As one student said, he uses Snapchat “whenever I’m waiting for stuff, anytime I don’t have anything else to do . . . like when I’m outside here waiting for this study” (R055).

Just as people held construals that shaped whether they understood the effects of social media use to be helpful or harmful, they also held construals about their perceived agency as users relative to social media. While some individuals viewed themselves as having high agency over their social media use, which they saw as a tool they could control to achieve their goals, others viewed themselves as having low agency over their social media use, which they saw as an entity that exerted control over them.

Discussion

Measuring social media use and its impacts has tended to focus on quantifying the amount and frequency of use, predominantly through self-reported surveys and computer-logging methods. Our results suggest a third orientation toward understanding time spent with social media: how people subjectively construe their social media use. Our analyses yielded two findings about these subjective construals: (1) we found several sources of conceptual variability that introduced subjectivity and uncertainty into the process of responding to questions that seek to quantify time spent on social media, and (2) we found that people’s understanding of the effects of social media and the role it plays in their lives revolved around construals of valence (Are the effects of using social media helpful or harmful for me?) and agency (Am I in control of my social media use or is it controlling me?).

Conceptual Variability in How People Estimate and Report Time Spent on Social Media

Our first research question (R1) examined the subjective factors that affect how people estimate and report the time they
spend on social media. Our findings align with extensive work on strong questionnaire design that urges researchers to attend to sources of variance in their data collection (Krosnick, 2018). Investigating conceptual variability in survey items that affect how people interpret the questions they are asked may be particularly important in the field of social media studies, where objective data such as computer-logs may be logistically difficult to obtain and self-reported survey measures are common (Conrad & Schober, 2005; Hancock et al., 2019).

When participants in our study were asked to estimate how much time they spent on social media, we identified four sources of variability that emerged during respondents' thought processes about: (1) definitions of how they construed “social media,” (2) aggregation of time across multiple use sessions and platforms, (3) confidence in the estimates they produced, and (4) perceived norms about time spent with social media, involving both self-expectations and the expectations of others.

Across our interviews, we observed that the task of estimating one’s own social media use was not an easy calculation but rather a complex process that involved navigating uncertainty. First, participants had to establish the boundary conditions of what constitutes “social media,” a definition whose edges can often be blurred to include or exclude social technologies like video-chatting and video-games. This work supports and extends prior work on definitional variability in social media, suggesting that people’s lay definitions of social media can affect how they recall and report time spent on these platforms (Rhee et al., 2021). Second, they must also aggregate their social media use over multiple sessions, which may involve task-switching, daily change, and a range of session lengths. This task of aggregation is understandably challenging in light of previous work on media task-switching finding that the average length of a session of online activity is 20 s (Yekkelis et al., 2018). Third, respondents had to reckon with their own levels of confidence about their answers. In line with previous work identifying challenges with measures of self-reported social media use, the majority of individuals we interviewed expressed uncertainty and low confidence in their responses, often expressing their estimates in a range (i.e., “Somewhere between 30 and 60 min”) rather than a number (Ernala et al., 2020). Fourth, the process of estimating social media use was also affected by perceived norms. While previous work has examined the effects of dominant media narratives about the harmful or addictive nature of social media use on individual and public behavior, our findings suggest that these norms can also meaningfully shift how people recall and report time spent on social media with implications have data quality (Lanette et al., 2018; Orben & Przybylski, 2019). Drawing from the literature on survey design, the influence of participants’ perceptions of how much time they should be spending on social media on how they thought about their own use can be conceptualized as an instance of participant response bias.

These findings help shed light on why prior work has found estimation errors between self-reported social media use and computer-logged measures (Ernala et al., 2020; Junco, 2013). We found that trying to calculate one’s own social media use is a challenging task that involves thinking through multiple sources of uncertainty, including differences in construals about what “counts” as social media.

To minimize the effects of conceptual variability, researchers can consistently specify clearer definitions of social media in surveys and control for interindividual differences in lay definitions of social media (Podsakoff et al., 2003; Rhee et al., 2021). In addition, they can include additional questions that ask participants to describe the level of confidence they have in their estimates (Ernala et al., 2020). More standardization to aggregation, such as counting or not counting brief use periods, including or not including task-switching, will also be important in reducing conceptual variability. Finally, assessing respondent’s perceived norms about how much they should be using social media, or how much they feel that other people are using social media, can inform how to interpret “a lot” or “a little” when responding to attitudinal Likert-type-scale questions of social media use (Ernala et al., 2020).

Valence and Agency: Mindsets of Social Media Use

Our second research question (RQ2) asked about the construals that shaped how people reasoned about their social media use. We found that people’s understanding of social media use revolved around their subjective construals of valence and agency. Construals of valence were the extent to which people viewed the effects of social media as enhancing or harmful. Construals of agency were the extent to which people viewed themselves as having more or less control relative to social media. These construals appeared to be closely related; people who felt more in control of their use also reported more positive views of social media, and those who felt controlled by social media reported more negative views of social media.

These construals can be understood as mindsets, which are a particular kind of construal that work as “core assumptions about the nature and workings of things and processes within us and in the world” (Dweck, 2008; Dweck & Yeager, 2019; Zion & Crum, 2018). When making sense of experiences for which there are many potential ways of understanding its effects—such as the effect of social media use on one’s life—mindsets serve as a simplifying system to orient feelings, shape appraisals, and motivate relevant behaviors and responses. Previous work in health psychology has found that the mindsets people have about illnesses can affect their mental health, physical health, and the health behaviors they
engage in (Heathcote et al., 2020; Zion & Crum, 2018; Zion et al., 2019). Also known as implicit theories, mindsets function like lenses that color how people come to understand their experiences, such as those with social media, and can lead to responses consistent with this view.

We propose that mindsets may be a useful theoretical framework for understanding the subjective construals that our participants described about their social media use. Like folk theories, mindsets trace the pathway from particular mental models of social media to behaviors and outcomes of interest (DeVito et al., 2018). However, while research on folk theories probes user understandings of sociotechnical systems, mindsets explore how people understand the role of these technologies in their lives.

Notably, examination of social media mindsets can also complement and extend previous work on uses and gratifications of social media by examining how interindividual differences in uses and gratifications may be related to differences in how people understand the role of social media in their lives (Quan-Haase & Young, 2014).

Some individuals who view social media as enhancing and as something under their control could be described as having a mindset that “social media is empowering.” These participants understood social media as something that affords them power to fulfill their needs and gratify their desires. This mindset holds social media as a means to pursue goals, ranging from facilitating communication and maintaining relationships to alleviating boredom. With this mindset, time spent on social media can be time well spent.

In contrast, individuals who believe that social media use is harmful and exerts control over their lives could be described as having a mindset that “social media is addictive.” These participants saw social media as something outside of their control that they struggle to manage. This mindset sees social media as a “mindless” waste of time that deprives users from meaningful interactions (Baym et al., 2020). Because they construe social media as something that captures their attention and that they struggle to control, they have more negative associations with their own social media use. Participants with this mindset reported trying to minimize their social media usage, experiencing feelings of guilt and shame, and attributing negative outcomes, such as poor productivity, to social media.

Our conceptualization of these social media mindsets is consistent with previous work that demonstrates how beliefs about social media can affect people’s behavior. For example, subjective factors such as the strength of an individuals’ emotional attachment to social media and their motivations for their use are meaningfully related to outcomes (Ellison et al., 2007). Other work on addictive or compulsive use of social media has highlighted how individuals who feel that they struggle to control their use also tend to report worse well-being (Andreassen et al., 2012). More recently, quantitative studies have developed methods for measuring social media mindsets (Lee & Hancock, 2020). In addition, Mieczkowski et al. (2020) found that one’s mindset moderated the relationship between self-reported social media use and depression, suggesting that how people construed their use of social media influenced how social media use was related to depression.

Subjective understandings of social media use can inform behaviors and responses, and even how people report the time they spend on social media. A social media mindsets approach can capture two kinds of construals we frequently observed in our interviews: (1) an empowering tool controlled by people or (2) a harmful addiction that exerts control over users. A mindset approach highlights the implications of such construals on downstream processes of attention, motivation, affect, and behavior. By considering these mindsets, we can better understand how an individual’s subjective experiences with media interact to affect their quality of life.

Future Directions and Limitations

Our findings suggest a new means of conceptualizing “time spent on social media” that focuses on the subjective processes that inform how people estimate and report their social media use and the mindsets that shape how they make sense of its role in their lives. Future work should involve a more systematic study of the mindsets of social media use identified here. Prior work investigating the validity and generalizability of other types of mindsets have developed measures and tested whether these mindsets existed across multiple, diverse samples. More specifically, future studies should examine the relationship between different mindsets of social media use and key outcomes central to the study of social media effects, including mental and physical health, psychological well-being, and relationships. For example, they could examine whether individuals who held mindsets of social media as either empowering or addictive used social media more actively versus passively or felt different emotions while using social media.

The study has several important limitations. First, we interviewed young adults in college from the Bay Area, which limits the generalizability of our claims. In addition, we asked participants to discuss their beliefs and feelings about their own use of social media, although they may also have beliefs about the use of other individuals. The study of social media use is complicated by the fact that social media and its public perceptions are constantly changing and evolving. As discussed in Bazarova and Masur’s (2020) piece on the institutional conceptualizations of social media, people’s feelings about the nature and workings of social media may be influenced by current events about the role of social media platforms as corporations or institutions in society. Future work should examine the processes that shape people’s subjective understanding of social media institutions.

Conclusion

Attending to differences in subjective construals of social media use in the processes of reporting and reasoning about
time spent on social media can advance our understanding of how social media use relates to psychological outcomes. Our findings explore the sources of conceptual variability and uncertainty that participants must navigate when producing a self-reported estimate of social media use, identifying four factors that can shed light on why estimation errors commonly exist and identify points of improvement in survey methodology. Our results also suggest that people hold mindset about social media that revolve around how they construe the valence and agency of social media. In their own words, participants who hold the mindset that “social media is empowering” reported having better, more enhancing experiences with social media than those who hold the mindset that “social media is addicting.” By unpacking how people come to interpret and construe their personal experiences with social media, we can better conceptualize the nuanced relationship between social media and psychological dynamics.

Acknowledgements
The authors extend their appreciation and gratitude to the peer reviewers who provided helpful comments. They also thank the members of the Stanford University Social Media Lab, Mind & Body Lab, and the Center for Advanced Studies in the Behavioral Sciences.

Declaration of Conflicting Interests
The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD
Angela Y. Lee https://orcid.org/0000-0002-9527-5730

Supplemental Material
Supplemental material for this article is available online.

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Author Biographies

Angela Y. Lee is a PhD student of Communication at Stanford University. Her research interests focus on understanding the impact of beliefs about technology on psychological and social outcomes. (@angelaylee374)

Roberta Katz is a Senior Research Scholar at Stanford, working in both the Department of Communication and the Center for Advanced Study in the Behavioral Sciences (CASBS). Her research examines the cultural norms and values of those born during and after the mid-1990s, an age group that has been denominated “Generation Z.”

Jeffrey Hancock is the Harry and Norman Professor of Communication at Stanford University. He focuses on understanding psychological and interpersonal processes in social media. (@jeffhancock)