

Consumers Value Effort over Ease when Caring for Close Others

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Many products and services are designed to make caregiving easier, from pre-made meals for feeding families to robo-cribs that automatically rock babies to sleep. Yet, using these products may come with a cost: consumers may feel they have not exerted enough effort. Nine experiments show that consumers feel like better caregivers when they put more effort into caregiving tasks than when they use effort-reducing products to perform such tasks. The beneficial effect of effort on caregivers' self-perceptions is driven by the symbolic meaning of caregiving (i.e., the task's ability to show love) independent of the quality of care provided (i.e., the task's ability to meet needs) and is most pronounced when expressing symbolic meaning is most important: when caregivers are providing emotional support rather than physical support, when they are caring for another person with whom they have a close relationship, and when there is a relationship norm that investing effort shows love. Finally, this work demonstrates that marketers can make effort-reducing products more appealing by acknowledging caregivers' efforts rather than emphasizing how these products make caregiving less effortful. Together, these findings expand our current understanding of effort, caregiving, and consumer choice in close relationships.

Keywords: effort, caregiving, close relationships, symbolic meaning, signaling

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The SNOO bassinette is a “smart” crib designed by parenting expert Harvey Karp to help infants sleep better by playing white noise and rocking them gently to sleep when they cry. In popular press profiles of the SNOO on [Buzzfeed](#) ([BuzzFeed News 2016](#)) and in the *New York Times* ([Margalit 2018](#)), Karp describes the crib as a way to not only soothe fussy infants but also improve parent–child bonding and reduce stress and post-partum depression. However, many of the readers who commented on these articles had a more negative view, with comments such as “More lazy parenting products. . .sacrificing sleep is part of parenthood” and “This seems so detached, hold your baby.” But given the potential upsides of the SNOO—better-rested babies and parents—why do people react so negatively to the idea of it?

The SNOO is just one extreme example of an effort-reducing product, one of many goods and services designed to make consumers' lives easier by reducing the amount of effort they need to exert in completing a task. Yet innovations like these, when intended to make the task of caregiving less effortful, may come with a cost, one that

the comments on the SNOO exemplify: when consumers choose easy options for caregiving, that very ease may signal that they are failing to be as good parents—or friends or relatives or spouses—as they could be. Our work investigates how consumers respond to effort-reducing products when those goods and services simplify caregiving in particular. As we will show, a preference for effort in caregiving can make consumers avoid effort-reducing alternatives that simplify caring for others and feel like worse caregivers when they do use such options. Finally, we also demonstrate that marketers can craft more effective communications by acknowledging caregivers' efforts rather than merely highlighting how products can make caregiving easier.

The caregiving situations we examine are those in which consumers provide direct care to close others (e.g., children, spouses, elderly relatives, close friends). Drawing on the theoretical framework developed by Liu, Dallas, and Fitzsimons (2019), we consider caregiving to be recipient-focused behavior in which consumers must balance their own and the recipient's preferences. In these caregiving situations, consumers make choices for others who need support by balancing a number of competing interests, including their loved ones' preferences, their own preferences regarding shared outcomes, their available time, energy, money, and other resources, and so on. Our particular focus on consumers' sometimes-conflicted responses to products that simplify—and in some cases objectively improve—their caregiving allows us to explore a core proposition of the Liu et al. (2019) framework by examining the consumer self-perceptions that result from attempts by caregivers to balance their own preferences and those of the recipient.

Building on work showing that people value effort (Cutright and Samper 2014; Kruger et al. 2004; Morales 2005; Olivola and Shafir 2013), we argue that when taking care of close others, consumers feel like less-dedicated caregivers when they use effort-reducing products or services that do not allow them to symbolically signal their love. Instead of focusing on how effort impacts valuation of products and services (Buell and Norton 2011; Norton, Mochon, and Ariely 2012), we examine the unique role that effort plays in consumers' self-evaluations as caregivers. In short, a sick partner might prefer soup made by a professional cook and an infant might get more rest due to a product actually proven to help them sleep—but when consumers balance these recipients' needs against their own desire to feel like a good caregiver, they may sometimes prioritize the symbolism of caregiving over its functional benefits. Finally, we use this understanding of the psychological experience of caregivers when evaluating effort-reducing products to inspire and craft more effective advertising.

EFFORT AND CAREGIVING

Consumers often have multiple close relationships—as a parent, sibling, child, romantic partner, or friend, among others—and these relationships are central to their emotions, identities, and well-being (Cavanaugh 2016). They often have to take care of these close others, in both day-to-day circumstances (like making dinner for one's family) and more extreme ones (like comforting a friend going through a rough time). Research using the “Day Reconstruction Method,” developed by Kahneman et al. (2004) to assess how people spend their time, found that the sample of employed women spent on average 1.1 hours per day taking care of their children and 1.5 hours per day doing other activities that relate to caregiving (e.g., preparing food, shopping). Caregiving situations are ubiquitous and intimately tied to a variety of consumption decisions. Consumers must decide how they will take care of their loved ones, how they will perform caregiving tasks, and what products they will use in the service of providing care.

Not surprisingly, then, companies regularly design products that simplify caregiving tasks and then pointedly advertise this ease as a special feature or advantage. For example, Sara Lee sells their frozen pies saying “Holidays are hard, pies are easy,” Campbell's soup is marketed as “Convenient, tasty solutions for everyone and every meal,” and Betty Crocker's cake mix slogan is “So simple, so delicious.” Given that many consumers often feel stressed about time, products like these may seem to be the perfect solution to help them juggle multiple caregiving tasks. But the possibly apocryphal yet plausible tale about instant cake mix—that sales did not take off until manufacturers made baking cakes with it more effortful by requiring bakers to add a fresh egg (Mikkelsen 2008)—suggests that consumers' appreciation for products that make their lives easier may not be as straightforward as it might seem on the surface. The idea behind this story was that by investing minimal effort by just adding water, home bakers felt as if they were “taking the easy way out” rather than being good caregivers. In other words, baking, cooking, and other caregiving tasks seem to lose their ability to communicate caring for loved ones when products that facilitate those tasks do not require *enough* effort on the part of the caregiver.

Given the prevalence of time and effort-reducing products on the market, it is reasonable to ask under what circumstances less effort is preferred to more effort and more effort preferred to less. According to a survey conducted by Pew Research Center (2013), approximately 40% of working mothers say they always feel rushed and such time stress has a number of negative consequences including poorer health (Roxburgh 2004). Moreover, research shows that using money to improve the quality of one's time—for example, by outsourcing disliked tasks and

purchasing time-saving products such as Roombas—increases consumer well-being (Whillans et al. 2017). Together, this work on time stress and consumer responses to it suggests that consumers *should* often prefer products that can help them save time and effort, which they can then devote to more enjoyable activities.

At the same time, however, other research has shown that consumers do not always shun products that require effort or time, particularly when those products can be used symbolically to signal closeness and love to others. For example, gift givers believe that effort is valued by recipients, so that giving a “good gift” means investing extra time, money, and thought into searching for what to get a recipient (Flynn and Adams 2009; Ward and Broniarczyk 2016; Zhang and Epley 2012) even in situations when recipients do not know who the giver is (e.g., a Secret Santa exchange; Steffel and LeBoeuf 2014). In addition, hard work and effort in the creation of products not only signals care and concern to others, but it can also serve as a signal to oneself, as effort increases consumers’ feelings of self-efficacy, competence, and control (Cutright and Samper 2014; Norton et al. 2012); in the domain of charitable giving, for example, consumers change their moral self-perceptions only after a costly prosocial behavior (Gneezy et al. 2012). We suggest that in the domain of caregiving, consumers use effort to signal to recipients and to themselves that they deeply care.

Here, we bridge the literatures on effort in personal consumption and choices for others to suggest that, in the domain of caregiving, consumers choose effortful products and services to balance their symbolic needs (showing love) with recipients’ functional needs (receiving actual care). Indeed, this particular balancing of symbolic and functional benefits is one critical conceptual differentiator between caregiving and gift-giving. In this work, the most important distinction between the two types of choosing for others in Liu et al.’s (2019) framework is that gift-giving emphasizes the recipient’s preferences, whereas caregiving entails a balance between the recipient’s and the caregiver’s preferences. As just one example of this distinction, although gift-givers might buy their partner’s favorite cake for his or her birthday, they might choose a healthier option in a caregiving situation if they believe that their partner *should* have something different. Moreover, the stakes are often higher in caregiving than gift-giving because consumers feel the weight of responsibility for the recipient’s welfare and needs (Clark, Mills, and Powell 1986; Thompson 1996): a friend does not typically “need” a new sweater or an iPhone, whereas a sick friend actually needs food and a baby actually needs to sleep. As a result, caregivers’ trade-offs between their own symbolic needs to feel like good caregivers and the actual functional benefits to recipients offer a conceptually novel case of balancing in consumer relationships.

In our research, we focus on the role of effort in consumers’ choices in contexts in which caregivers are responsible for providing direct care to others and in their self-evaluations as caregivers. We build on qualitative research on maternal guilt showing that mothers experience guilt when they feel accountable for the development and well-being of their children but cannot fulfill their own and societal expectations (Rotkirch and Janhunen 2010). Notably, Seagram and Daniluk (2002) argue that mothers’ intense feelings of love and connection to their children motivate their desires to serve them well and that they set very high standards for themselves as parents. Extending these ideas to caregivers more broadly, we argue that consumers are likely to feel like better caregivers when they put more effort into caregiving tasks than when they use an effort-reducing product to perform such tasks because they think that the effortful approach does a better job serving the recipients. More formally, we hypothesize:

H1: Consumers feel like better caregivers when they put more effort into caregiving tasks than when they use an effort-reducing product to perform such tasks.

Work on cognitive dissonance and self-perception suggests that the more effort people invest in a task, the more they value the outcome of the task (Bem 1967; Festinger 1957); indeed, people infer quality from effort (Kruger et al. 2004). Prior work conceptualizes effort in terms of investment of time, physical exertion, pain, or money, but different resources are often valued differently. For example, consumers view their time as a more unlimited resource than money (Zauberman and Lynch 2005) and as a stronger signal of their preferences (Shaddy and Shah 2018) and moral identity (Reed, Aquino, and Levy 2007). We suggest that effort is uniquely valued in caregiving because it serves as a symbol of love; essentially, putting in effort means people have poured their hearts and souls into taking care of their loved ones.

Prior work examining investment in close relationships has conceptualized time and effort as a singular non-monetary “social” resource and juxtaposed it with money, a “market” resource (Fiske 1992; Heyman and Ariely 2004). Partly as a result, recent work has focused primarily on understanding differences between time and money (Mogilner and Aaker 2009; Whillans, Weidman, and Dunn 2016). However, some research offers evidence for a role for effort alone in signaling commitment in close relationships, using paradigms that assess effort—for example, where exerting greater physical energy by taking more steps on a treadmill resulted directly in cash rewards to one’s partner (Van Lange et al. 1997)—as one behavioral manifestation of commitment to a partner. Although tasks that require more effort usually take longer to complete, we suggest that exerting effort in a caregiving task, above and beyond other resources like time or money, leads to feeling like better caregivers. Thus, we predict:

H2: Consumers feel like better caregivers when they invest effort into caregiving tasks, above and beyond investing other resources like time or money.

CAREGIVING GOALS

Effort-reducing products can help consumers to accomplish functional caregiving goals—that is, to address their recipients' tangible needs—and on some occasions, do so better than consumers themselves could: store-bought organic soup can nourish children just as well as homemade soup, a housecleaner can probably clean the house better and more efficiently than the typical homeowner could, and a professional massage can often be more relaxing to a stressed out spouse than an amateur backrub on the couch. Thus, one prediction might be that consumers in caregiving roles would be interested in products that are especially efficient at achieving these functional goals, especially given how varied loved ones' needs can be. Yet previous research has shown that consumers often sacrifice functionality in service of fulfilling other goals, such as to appear interesting (Thompson and Norton 2011), to express their identity (Ariely and Levav 2000; Berger and Heath 2007), and to obtain variety (Ratner, Kahn, and Kahneman 1999). We suggest that caregiving is a specific interpersonal context that involves a unique sacrifice of functionality in the service of fulfilling symbolic goals, which products and technologies that simplify caregiving are less able to satisfy.

Symbolic caregiving goals, in our definition, are showing love and making the recipient feel cared for. Prior qualitative work demonstrates that caregiving activities are opportunities for people to express love, sacrifice, and family identity (Coskuner-Balli and Thompson 2013; Epp and Price 2008; Moio, Arnould and Price 2004; Thompson 1996). Epp and Velagaleti (2014) conducted in-depth interviews and showed that consumers face tensions regarding control, intimacy, and substitutability when outsourcing parenting tasks. And recent work shows that automation is less desirable when identity motives are important drivers of consumption (Leung, Paolacci, and Puntoni 2018) or when consumers want to symbolically express their beliefs or personality (Granulo, Fuchs, and Puntoni 2021). We build on this research to suggest that using products that simplify caregiving does not accomplish caregivers' symbolic goals as successfully as doing something more effortful because people feel that they are not exerting *enough* effort to be good caregivers. More formally, we hypothesize:

H3: Consumers feel like better caregivers when they put more effort into caregiving tasks than when they use an effort-reducing product to perform such tasks because they believe effort enables them to better fulfill their symbolic caregiving goals.

WHEN AND WITH WHOM IS EFFORT MEANINGFUL?

Caregiving tasks are highly varied: consumers might directly help loved ones with daily life by feeding them or bathing them, handle indirect care tasks like laundry and housecleaning, coordinate care with other caregivers like babysitters or doctors, and so on. If effort matters because of the symbolic meaning of a caregiving task, certain kinds of tasks could be more effective at showing how much a caregiver loves and cares for a recipient than others. One dimension of particular importance is whether the caregiving task is providing physical support (i.e., taking caring of the recipient's material well-being) or emotional support (i.e., taking caring of the recipient's psychological well-being). Some tasks can provide both at once—a well-timed backrub can release both mental and physical tension—but effort put into emotional support may often serve as more of a signal of love and care, as emotional support is often in the domain involving a close loved one and only their comfort and encouragement will do (Dakof and Taylor 1990; Lanza, Cameron, and Revenson 1995). A mother offloading the task of making sure there are always bandages in the medicine cabinet for her children's cuts and scrapes creates a very different impression from that same mother offloading the task of kissing her children's boo-boos to make them feel better, for instance. More formally, we hypothesize:

H4: Consumers feel like better caregivers when they take a more effortful approach than when they use an effort-reducing product to perform a task intended to provide the recipient with emotional versus physical support.

Not only might the type of task matter when it comes to the necessity of putting in effort, but the relationship between the caregiver and the recipient is also likely to be influential. To start, a person's steadiest and most meaningful relationship is with their own self, and self-care is common and purposeful (Lieberman 2019; Silva 2017). However, taking care of oneself is meaningfully different from caring for others; for example, we suspect that self-care is one domain in which the functional output outweighs any signaling that might occur, and therefore, saving effort will be more appealing in self-care contexts and shortcuts will seem acceptable or even preferable. In other words, people will prefer to put in effort when caring for another person more than when caring for themselves.

Given that, which other people is it most important to signal love to and therefore put in effort on behalf of? We suggest that it is important that the caregiver has a close relationship with the recipient, in the sense that the caregiver feels interconnected with the recipient (Aron, Aron, and Smollan 1992). If this is not the case, signaling is likely to be lower on the list of priorities than is successfully completing the task, meaning that people are likely to prefer

putting in effort when caring for someone for whom signaling love and care will have longer-term impact, rather than someone they do not know well. People are highly committed to and invested in maintaining their close relationships (Rusbult 1980) and expressing that to their loved ones is often a priority (Laurenceau, Barrett, and Pietromonaco 1998). We expect that signaling love and thus putting in effort is more important when caring for especially close others, rather than more distant friends and acquaintances. Putting this together, we predict that:

H5A and 5B: Consumers are more likely to put more effort into caregiving tasks rather than use an effort-reducing product to perform such tasks when taking care of (a) another person (b) with whom they have a close relationship.

Relationships vary in many ways beyond how close they are. Relevant to our thinking, each relationship may be unique in the degree to which effort is treated as an important form of symbolic currency. For example, effort—in the form of “acts of service”—is only one of five “love languages” in a popular framework of how people communicate their love (Chapman 2009), suggesting that while effort is a key way that people can express love to those they deeply care about, it may not necessarily be important or symbolic in all relationships. One way to establish whether effort can serve as symbolic currency in a relationship is by one partner setting a norm that it is (or is not) expected via their own behavior. A relationship norm like this will both guide and constrain behavior in the context of that specific relationship, so that the other person in the relationship is likely to act in accordance with that norm (McGraw and Tetlock 2005). If the recipient of care had in the past used an effort-reducing product for caregiving when the roles were reversed, for instance, they may have signaled to the caregiver that their relationship is not one in which effort is expected in order to show love. Thus, we propose:

H5C: Consumers feel like better caregivers when they put more effort into caregiving tasks than when they use an effort-reducing product to perform such tasks unless the recipient establishes a relationship norm that effort is not expected to show love.

PILOT STUDY: YOU SNOO, YOU LOSE?

Returning to the SNOO example from earlier, we can use consumer reactions to this product to explore whether people draw inferences about the amount of effort invested in caregiving and perceptions about parenting.

Method

The two articles mentioned earlier—one released by BuzzFeed in October 2016 (BuzzFeed News 2016) and one

in the *New York Times* in April 2018 (Margalit 2018)—were posted on social media. We retrieved comments on these posts that were the main comment (not responses), were in English, and were not a junk comment (i.e., included only emojis, stickers, names, or only tags of people). This left us with 675 comments: 450 comments from the BuzzFeed Facebook post and 225 comments from the *New York Times* Instagram post.

Two coders blind to our research question read all comments and indicated (a) whether the person suggested that the SNOO reduced the amount of effort invested when taking care of a baby; (b) whether the person said something negative about parents who use the SNOO; and (c) whether the overall tone of the comment was negative, neutral, or positive. Intercoder agreement was 93% for the first dimension, 96% for the second one, and 77% for the third one; disagreements were resolved through discussion between the two coders.

Results

Comments were mixed in tone: according to our coders, 40.3% of the comments were negative in overall tone, 32.7% were positive, and 27.0% were neutral or unclear. First, we find that 19.1% of the commenters ($n = 129$) mentioned that the SNOO reduced the amount of effort that parents invested when taking care of their baby. And, 76.0% of the comments that specifically mentioned that the SNOO would reduce caregiving effort had a negative tone, compared to only 31.9% of the comments that did not mention effort ($\chi^2(2, N = 675) = 84.35, p < .001$), suggesting that at least in this specific context, people perceive this effort-reducing product negatively. Coders identified comments of people highlighting that this product would automate parenting tasks (e.g., “You could just take care of your baby without technology like every other generation of parents did”) or that it would reduce the amount of effort that parents would spend holding, soothing, rocking, or putting their baby back to sleep (e.g., “This seems so detached. Hold your child. Yes your arms ache. Yes your back hurts.”)

Second, some commenters ($n = 57$) spontaneously mentioned something negative about parents who use the SNOO. For example, commenters said things like, “Just lazy,” “You can stop being a shitty parent and take care of your kids,” and “If you need that device, you shouldn’t have kids.” Clearly, the benefits of using the SNOO mentioned in the articles did not translate to commenters perceiving parents who use the SNOO to be smart or efficient but instead neglectful, detached, and lazy. And, even though some commenters acknowledged the functional benefits the SNOO provides and highlighted that parents and babies will sleep better (e.g., “you can get your sleep back now”), this did not appear to offset in commenters’

eyes the possibility that the SNOO might hamper parent-child emotional bonding.

Third, we find a significant correlation between perceptions that the SNOO reduces effort when taking care of a baby and perceptions of poor parenting ($r = 0.45$, $p < .001$), supporting the notion that effortful caregiving is closely linked to being a loving and dedicated parent. Certainly, this is not necessarily a representative sample of reactions to the SNOO and does not carefully tease apart the role of effort from other factors. But taken together, these initial results provide preliminary but suggestive qualitative evidence to argue that people have a lay belief that effortful caregivers are better caregivers than those who use a product to take a shortcut. Next, we turn to more controlled experiments involving random assignment to examine when and why consumers might feel like better caregivers when they exert effort to take care of close others compared to when they use effort-reducing products and services.

RESEARCH OVERVIEW

The present research examines how consumers respond to products and services that simplify caregiving and explores how using effort-reducing alternatives affects caregivers' self-perceptions. We find that consumers feel they are taking the easy way out when using products that simplify caregiving rather than being dedicated parents, spouses, or friends because they believe that putting effort into caregiving has symbolic meaning.

We test our predictions in nine experiments designed to examine the psychological processes underlying caregivers' perceptions when evaluating and using effort-reducing products, and to test how such effort-reducing products can be positioned so that they may be perceived more positively by caregivers. First, we show that, both when they recall a past caregiving situation (study 1A) and in a laboratory experiment involving a real caregiving task (study 1B), consumers feel like better caregivers when they put in effort versus use effort-reducing products that simplify their tasks. Next, we assess why effort-reducing products that simplify caregiving have these effects, by examining whether and to what extent easier-to-use products fulfill functional and symbolic caregiving goals. Study 2 shows that effort is especially valued in caregiving, above and beyond other resources like time and money because it best conveys that the person truly cares about the recipient. Study 3 then reveals that the relationship between effort and feelings of satisfactory caregiving is largely due to the symbolic meaning of effort; choosing to put in effort versus using easier caregiving products makes consumers feel that they are doing a better job of signaling that they care about the recipient. Study 4 demonstrates that the type of support provided by the caregiving task,

emotional versus physical, moderates the effect of effort on self-perceptions. Studies 5A and 5B use choice paradigms to show that caregivers prefer more effortful processes when taking care of others with whom they have close relationships—as opposed to when taking care of themselves or more distant others—because the symbolic meaning of the gesture and its ability to show caring is more important. Study 6 demonstrates that the effect of effort on self-perceptions is attenuated when the recipient establishes a relationship norm that effort is not expected and does not have symbolic currency. Finally, study 7 tests an intervention useful to marketers seeking to craft more effective advertising appeals, one that reduces the negative self-perceptions that arise when consumers use products that simplify caregiving by highlighting caregivers' effort rather than the ease of use of effort-reducing products (see the overview of studies in table 1). Across studies, we reported all conditions and measures, did not analyze data until collection was complete, and did not exclude any observations. We determined sample sizes before any data were collected following a minimum threshold of 100 participants per condition.

STUDIES 1A AND 1B: EFFORT AND FEELINGS OF SATISFACTORY CAREGIVING

In studies 1A and 1B, we examine the effect of using effort-reducing products on caregivers' self-perceptions. First, in study 1A, we use a recall paradigm to explore caregiving situations involving a variety of contexts and relationships. Using a between-subjects design in an online experiment, we assessed whether consumers who were prompted to think of a time when they cared for a loved one without using a product to simplify their task (vs. those who were prompted to think of a time when they cared for a loved one and used a product to simplify their task) report feeling like better caregivers.

Next, in study 1B, we further explored the impact of using an effort-reducing product (vs. a more effortful alternative) on caregiver self-perceptions using a consequential caregiving task in a controlled laboratory setting, in which participants sent their grandparent or an elderly relative a postcard to let them know they were thinking about them. Participants were randomly assigned to make a postcard themselves or to choose a premade postcard. We predicted that those who invested more effort in the task by making a postcard themselves would perceive themselves to be better caregivers than those who merely chose a postcard.

Study 1A: Method

Participants. Five hundred one participants (47.5% male; $M_{\text{age}} = 38.82$ years, $SD = 11.63$) recruited through

TABLE 1
OVERVIEW OF STUDIES

Study	Context of care	Independent variable(s)	Key dependent variable(s)
Study 1A	Online respondents recalled a past caregiving situation	High versus low effort	Caregivers' self-perceptions
Study 1B	Laboratory participants took care of an elderly relative	Handmade versus premade postcard	Caregivers' self-perceptions
Study 2	Online respondents imagined taking care of their sick friend	Effort versus time versus money	Caregivers' self-perceptions and symbolic goal
Study 3	Online respondents imagined preparing coffee for their partner every morning	Manual versus automatic coffee maker	Caregivers' self-perceptions and symbolic goal
Study 4	Online respondents imagined taking care of an elderly relative who needed to go for a walk every day	Effort (accompany relative vs. hire nurse) \times support (physical vs. emotional)	Caregivers' self-perceptions
Study 5A	Participants living with their partner chose a gift certificate to take care of themselves or their partner	Partner versus self	Choice between baking cookies using a cookie mix or frozen cookie dough
Study 5B	Participants chose a gift certificate to take care of a neighbor	Close versus distant neighbor	Choice between baking cookies using a cookie mix or frozen cookie dough
Study 6	Online respondents imagined cooking or buying soup for their sick partner	Caregivers' effort (cooked vs. bought soup) \times partners' past effort (cooked vs. bought soup)	Caregivers' self-perceptions and symbolic goal
Study 7	Social media users viewed an ad featuring the SNOO Smart Sleeper	Effort acknowledgment versus effort reduction framing	Click-rate on ad to learn more about the product

Amazon Mechanical Turk (MTurk) completed an online study for monetary compensation.

Procedure. Participants read that the purpose of the study was to understand decisions that consumers make in the context of caregiving and were asked to describe the last time they took care of a close other and used a product or service to simplify the caregiving task (*low effort* condition, $n = 247$) or when they took care of a close other and did the task themselves without using a product or service to simplify the caregiving task (*high effort* condition, $n = 254$).

Next, participants indicated the extent to which they agreed with three statements: "I felt like a dedicated caregiver," "I felt like a loving caregiver," and "I felt like a good caregiver," on scales from $1 = \text{not at all}$ to $7 = \text{very much}$. The average of these items served as our dependent measure in this and future studies unless otherwise indicated (here, $\alpha = 0.91$).

On the next pages, participants answered follow-up questions about the caregiving situation they described. They reported how responsible they felt for taking care of the recipient, how effortful the task was, what their relationship with the recipient was, how old the recipient was, how long they had known the recipient, whether they lived with the recipient, how close they felt to the recipient, how long ago this had happened, how difficult it was to think about a situation to write about, and how difficult it was to remember details about the situation (see exact measures in the Open Science Framework repository). This and all

subsequent studies concluded with basic demographic questions (e.g., gender, age, income, relationship status).

Study 1A: Results

Caregiving Context. One-third of participants (33.3%) described a situation that involved taking care of their child, followed by taking care of their partner (17.6%), their parent (16.6%), an elderly relative (9.8%), another family member (8.6%), a sibling (5.2%), a friend (5.2%), and other recipients (3.7%); there were no differences between conditions in terms of recipients involved ($\chi^2(7, N = 501) = 6.61, p = .470$). Recipients of care were on average 35.07 years old ($SD = 29.49$) and ranged from 0 to 96 years old; there were no differences between conditions in terms of how old the recipient was ($t(499) = 1.09, p = .276, d = 0.10$). More than half of the caregiving situations described (53.5%) had taken place within the last month and there were no differences between conditions in terms of when the situation took place ($\chi^2(5, N = 501) = 4.47, p = .483$; see [table 2](#) for examples of caregiving situations described).

Perceptions of Effort. Participants who performed the caregiving task themselves without using a product reported exerting more effort than those who used a product to simplify the task ($M_{\text{high effort}} = 5.17, SD = 1.49$ vs. $M_{\text{low effort}} = 4.66, SD = 1.61; t(499) = 3.66, p < .001, d = 0.33$).

Caregivers' Self-Perceptions. Supporting our first hypothesis, participants who did the task themselves reported

TABLE 2
STUDY 1A: EXAMPLES OF CAREGIVING SITUATIONS RECALLED BY PARTICIPANTS

Recipient of care	Examples
Child	Making meals and getting my child ready for school. I made a loaf of bread for my kids. Watching my baby and feeding him.
Partner or spouse	I took care of my fiancée when he was ill by cooking and doing errands. I gave a neck massage to relieve my boyfriend's pain and stiffness. I gave my husband a haircut at home.
Parent	Helping my mother after surgery. I had to take care of my dad when he had the flu. Helped moving my mom to a new house.
Elderly relative	Helping my grandfather use the restroom. Eating dinner with my grandmother every Saturday. Bathing my elderly grandmother.
Sibling	I helped my sister with her newborn baby the first week after she gave birth. I made homemade soup for my sick brother. Babysitting my brother.
Other family	I had to clean my relative's house. I took care of my uncle after dialysis. I had to take care of a family member and I used GrubHub for delivery.
Friend	Helping friend going through chemo treatment. I was helping a friend who had a hurt leg. I was taking care of a friend who was going through a breakup.

that they felt like better caregivers than those who used a product to simplify the caregiving task ($M_{\text{high effort}} = 6.19$, $SD = 0.92$ vs. $M_{\text{low effort}} = 5.92$, $SD = 1.17$; $t(499) = 2.97$, $p = .003$, $d = 0.27$). This effect held when controlling for responsibility, relationship type, relationship closeness, and recipient's age ($b = 0.28$, $SE = 0.08$, $p = .001$; see [web appendix](#)).

Recall Difficulty. On average, participants did not have a hard time thinking about a situation to write about ($M_{\text{total}} = 2.38$, $SD = 1.84$) or remembering details about the situation ($M_{\text{total}} = 2.28$, $SD = 1.82$). Most importantly, we do not observe differences between conditions in terms of how difficult it was to think about a situation to write about ($t(499) = 0.26$, $p = .796$, $d = 0.02$) or to remember details about the situation ($t(499) = 0.17$, $p = .864$, $d = 0.02$). In addition, a research assistant reviewed all responses and identified that only 2.4% of participants said they could not remember a situation to write about; there were no differences between conditions on this dimension ($\chi^2(1, N = 501) = 1.25$, $p = .263$).

Study 1B: Method

Participants. Two hundred fifty-one undergraduates (68.5% male; $M_{\text{age}} = 20.76$ years, $SD = 1.89$) at a Midwestern university participated in a laboratory study in exchange for course credit. The sample size was determined by the number of students participating for credit in studies in the lab over the course of two months (February 24 to April 25, 2017).

Procedure. Participants read that research has shown the effect of social connection on health and happiness, especially among hard-to-access populations like the elderly. Participants were then told that they would send their grandparent or an elderly relative a postcard to let them know they were thinking about them and give them these same benefits. They learned that half of the participants would make the postcards themselves (*high effort* condition; $n = 126$) and the other half would choose premade postcards from a set of eight options (*low effort* condition; $n = 125$). Whether they would make or choose postcards was randomized at the session level.

All participants received a package with materials for the task: those choosing a postcard had a packet that showed the eight premade postcards, while those making a postcard had a package that included a blank card, colored pencils, markers, and stickers. Participants choosing a premade postcard looked through their options, requested their favorite from the experimenter, and then filled it out. Participants making the postcard crafted the front and then filled it out. Every package included a stamp, and participants were informed that at the end of the study they could leave their postcard and the researcher would mail it. If they did not have their relative's address, they could take the postcard and mail it later (see postcard examples in [web appendix](#)).

Participants had unlimited time to work on the task, but after 10 minutes, the research assistant supervising the session nudged them to wrap up. As soon as they finished making or choosing the card, participants completed our

dependent measures on a computer. They reported the level of effort involved in the process of making a handmade postcard compared to choosing a premade postcard on a scale from 1 = *choosing a premade card is more effortful* to 7 = *making a handmade card is more effortful*. They also reported the extent to which they felt (a) like a dedicated family member, (b) that they were taking good care of their grandparent, and (c) guilty about sending a premade/handmade card instead of a handmade/premade card on scales from 1 = *strongly disagree* to 7 = *strongly agree*.

Study 1B: Results

As intended, participants thought that making a postcard was more effortful than choosing a premade card ($M_{overall} = 6.03$, $SD = 1.48$; one-sample $t(250) = 21.71$, $p < .001$, $d = 1.37$ vs. midpoint = 4) and this perception did not vary based on whether they were assigned to make a postcard themselves or choose a premade card ($M_{made} = 6.17$, $SD = 1.45$ vs. $M_{chose} = 5.89$, $SD = 1.50$; $t(249) = 1.54$, $p = .126$, $d = 0.19$). Germane to our hypotheses, participants who made a card felt like more dedicated family members than those who chose a premade card ($M_{made} = 5.28$, $SD = 1.22$ vs. $M_{chose} = 3.93$, $SD = 1.28$; $t(249) = 8.57$, $p < .001$, $d = 1.08$), felt that they took better care of their grandparent ($M_{made} = 5.17$, $SD = 1.24$ vs. $M_{chose} = 3.90$, $SD = 1.46$; $t(249) = 7.41$, $p < .001$, $d = 0.94$), and felt less guilty ($M_{made} = 2.05$, $SD = 1.23$ vs. $M_{chose} = 2.78$, $SD = 1.52$; $t(249) = -4.22$, $p < .001$, $d = -0.53$).

A pilot study ($N = 100$ MTurkers; 59.0% male; $M_{age} = 37.02$ years, $SD = 10.62$) revealed that observers perceived premade cards to have a nicer design, be of higher quality, and be a superior product compared to handmade cards, supporting the idea that premade cards might be functionally better cards. Yet, observers also indicated that handmade cards are a better way to express love and care to a recipient, supporting our symbolic goal account ($ps < .001$; see details of pilot study 1 in [web appendix](#)). Of course, it is possible that observers may view self-made cards in a different light than the people who made them; however, in the majority of the remaining studies, we have caregivers assess the quality of care they themselves provided.

Discussion

Study 1A used a recall paradigm to support our first hypothesis: across a wide variety of caregiving situations and relationships, consumers who completed a caregiving task by themselves felt like better caregivers than those who did the task using a product that simplified it. Study 1B further demonstrates that individuals who exerted more effort in a caregiving task by making a handmade postcard felt like better caregivers than those who exerted less effort

by choosing a premade postcard. Study 2, and our subsequent studies, will build on these findings by showing this effect even in contexts where participants are unaware of alternative methods of care and by highlighting the unique role that effort plays in caregivers' self-perceptions.

STUDY 2: INVESTING EFFORT VERSUS TIME VERSUS MONEY IN CAREGIVING

Caregivers invest many different resources into those they love—their effort, as we have seen, but also their time, their money, and more. Do caregivers feel more positively about themselves when they invest more of *any* resource in a loved one, or is effort special? Here, we test the idea that people believe that effort uniquely signals they truly care about someone by examining whether participants who invested effort when taking care of a friend at the hospital would feel like better caregivers than participants who only invested time or money.

Method

Participants. Three hundred one participants (57.5% male; $M_{age} = 38.38$ years, $SD = 10.96$) recruited through MTurk completed an online study for monetary compensation.

Procedure. Participants imagined a situation in which they, together with two other friends, were taking care of a fourth friend in the hospital (Alex) by bringing Alex's favorite dish for dinner. They read the following:

“One person will be responsible for ordering and paying for the ingredients for the dish from Whole Foods and arranging to have them delivered to the person who will cook the meal. This task will cost money but shouldn't take a lot of time or effort. Another person will be responsible for cooking the dish. Cooking the dish requires concentration because it involves a lot of multi-tasking. This task will be effortful but shouldn't take a lot of time and won't cost any money. Another person will be responsible for picking up the dish and delivering it to the hospital. They won't be able to see Alex because the hospital does not allow visits yet. This task will be time-consuming but shouldn't take a lot of effort and won't cost any money.”

Next, participants were randomly assigned to imagine that they performed one of these three tasks and indicated to what extent they would feel like a dedicated, loving, and good friend using the same three measures as in study 1A ($\alpha = 0.93$). Participants also indicated which task they thought best showed that they cared for their friend at the hospital and which task they would prefer to do (in both cases, they selected one of the three tasks).

Results

Consistent with our theorizing, we find that not all resources invested in caregiving have the same impact on caregivers' self-perceptions ($F(2, 298) = 8.45, p < .001, \eta_p^2 = 0.05$). Participants who imagined investing effort reported feeling like better caregivers ($M = 5.95, SD = 1.14$) compared to those who invested time ($M = 5.43, SD = 1.12$) or money ($M = 5.29, SD = 1.33$). Post hoc Bonferroni tests revealed that effort differed from money ($p < .001$) and time ($p = .007$) but the latter two were not significantly different from each other ($p > .250$).

Similarly, most participants indicated that the task that would best show that they care for their friend would be investing effort to cook the meal (76.4%) rather than the task that involved time (14.3%) or money (9.3%), supporting the claim that effort is uniquely valued because of its symbolic signal; this distribution was significantly different from an expected distribution with three equal categories ($\chi^2(2, N = 301) = 252.49, p < .001$). Finally, 43.9% of participants reported that they would choose to cook the dish (the task that involved investing effort) rather than the task that involved investing time (36.5%) or money (19.6%); this distribution was significantly different from an expected distribution where the three resources were chosen evenly ($\chi^2(2, N = 301) = 27.95, p < .001$).

Discussion

Consumers feel like better caregivers when they invest effort compared to when they invest other resources like time or money. Time spent and effort exerted are often correlated, but by separating them out in this study, we can establish that when caring for others, consumers value effort more than time because of its unique ability to signal love and care.

In a follow-up study ($N = 404$ MTurkers; 46.5% male; $M_{\text{age}} = 36.02$ years, $SD = 10.58$), we manipulated effort and time orthogonally and presented caregiving choices in a single-evaluation format. Participants imagined that their partner was sick and craving tomato soup. Then, they imagined that they decided either to buy soup ready from a local market (*low effort* conditions) or to cook the soup from scratch (*high effort* conditions) and that the task they chose took them either a long time (*high time* conditions) or a short time (*low time* conditions) to perform. As in previous studies, participants then answered three questions indicating to what extent they would feel like good caregivers when taking care of their sick partner.

Regardless of how long it took to obtain the soup, participants felt like better caregivers when they cooked the soup for their sick partner ($M_{\text{high effort}} = 4.56, SD = 0.63$ vs. $M_{\text{low effort}} = 4.21, SD = 0.73; F(1, 400) = 26.27, p < .001, \eta_p^2 = 0.06$). The main effect of time ($M_{\text{high time}} = 4.35, SD = 0.73$ vs. $M_{\text{low time}} = 4.41, SD = 0.69; F(1, 400) =$

$0.71, p = .400, \eta_p^2 < 0.01$) and the interaction ($F(1, 400) = 0.04, p = .834, \eta_p^2 < 0.01$) were not significant, indicating that the caregivers' self-perceptions are driven specifically by exerting more effort (e.g., cooking the soup rather than buying it), over and above the amount of time invested (see supplemental study 1 in [web appendix](#) for detailed methods and results). Next, we examine what underlies the relationship between effort and feelings of satisfactory caregiving.

STUDY 3: FUNCTIONAL VERSUS SYMBOLIC GOALS

Consumers may have at least two goals when caring for close others: one is functional (whether they succeed at taking care of their loved one's material needs) and another is symbolic (whether they demonstrate that they care for their loved one). When using an effort-reducing product that simplifies caregiving, consumers are likely to fulfill their functional goals but perhaps not the more symbolic ones, to the degree that effort signals caring for others. Study 3 tests why using a more effortful process (as opposed to an effort-reducing product) positively affects caregivers' self-perceptions.

In this study, consumers imagined using an automatic or a manual coffee maker to prepare coffee for their partner every morning. We predicted that consumers who used the manual coffee maker would feel like better caregivers and would think their caregiving task was more successful at achieving the symbolic goal of showing they love their partner. Most importantly, we predicted that symbolic meaning of the task would mediate the effect of effort on caregivers' self-perceptions. This study was preregistered on AsPredicted.org (# 35852).

Method

Participants. Four hundred participants (50.7% male; $M_{\text{age}} = 40.37$ years, $SD = 12.22$) recruited through MTurk completed an online study for monetary compensation.

Procedure. Participants imagined they prepared coffee for their partner every morning using an automatic or a manual coffee maker and read one of the two descriptions of their task:

Automatic coffee maker condition: "This means that you don't have to wake up because you already set a timer once so the machine automatically prepares the coffee every morning. When you set the timer, you also adjusted the water temperature and brew time so you don't have to do this every morning."

Manual coffee maker condition: "This means that every morning, you have to wake up and press a button to start the coffee machine. You also have to adjust the water temperature and brew time every morning."

Participants answered the three-item caregiver self-perception scale used in previous studies ($\alpha = 0.95$). Then, they answered two questions about the functional and symbolic goals of their caregiving task on a scale from $1 = \textit{not at all}$ to $7 = \textit{very much}$: they indicated to what extent they thought that their task of preparing coffee for their partner using this coffee maker achieved the goal of (a) satisfying their partner's need for caffeine (functional goal) and (b) showing that they love their partner (symbolic goal).

On the next page, participants answered two questions presented in a random order: "How tasty do you think the coffee you prepare with this machine is?" ($1 = \textit{not at all tasty}$ to $7 = \textit{very tasty}$) and "How would you describe your task of preparing coffee for your partner every morning using this coffee maker?" ($1 = \textit{definitely effortless}$ to $7 = \textit{definitely effortful}$).

Results

Perceptions of Effort. As intended, participants assigned to the manual coffee maker condition reported that preparing coffee for their partner every morning would require more effort than those who imagined using the automatic coffee maker ($M_{\text{manual}} = 4.33$, $SD = 1.59$ vs. $M_{\text{automatic}} = 2.81$, $SD = 1.44$; $t(398) = 9.99$, $p < .001$, $d = 1.00$).

Caregivers' Self-Perceptions. Replicating results from previous studies, participants who used the more effortful manual coffee maker reported feeling like better caregivers than those who used the automatic coffee maker ($M_{\text{manual}} = 5.97$, $SD = 1.00$ vs. $M_{\text{automatic}} = 5.59$, $SD = 1.36$; $t(398) = 3.22$, $p = .001$, $d = 0.32$).

Functional versus Symbolic Goals. Participants using the manual coffee maker thought they would achieve their functional goal of satisfying their partner's need for caffeine equally as well as those using the automatic coffee maker ($M_{\text{manual}} = 6.03$, $SD = 1.19$ vs. $M_{\text{automatic}} = 6.20$, $SD = 1.23$; $t(398) = 1.33$, $p = .183$, $d = 0.14$). However, participants using the manual coffee maker thought they would achieve their symbolic goal of showing that they loved their partner better than participants using the automatic coffee maker ($M_{\text{manual}} = 5.80$, $SD = 1.21$ vs. $M_{\text{automatic}} = 5.52$, $SD = 1.45$; $t(398) = 2.06$, $p = .041$, $d = 0.21$).

Mediation. Finally, the effect of effort on caregivers' self-perceptions was mediated by their perceived success at achieving their symbolic goal of signaling their love. We tested this indirect effect using model 4 in PROCESS MACRO (Hayes 2017), with 5,000 bootstrapped samples. When we entered symbolic goal into the model, the impact of effort on caregivers' self-perceptions was reduced from $b = 0.38$, $SE = 0.12$, $p = .001$ to $b = 0.20$, $SE = 0.08$, $p = .012$. More importantly, we find a significant indirect effect of effort on caregivers' self-perceptions through symbolic

goal, $a \times b = 0.19$, $SE = 0.09$, 95% CI [0.01, 0.37]. When we added the functional goal item to a second model testing for parallel mediation, the indirect effect of symbolic goal held ($a \times b = 0.17$, $SE = 0.08$, 95% CI [0.01, 0.34]) and the indirect effect of functional goal was not significant ($a \times b = -0.03$, $SE = 0.02$, 95% CI [-0.07, 0.01]).

Quality of Care. Participants using the manual coffee maker thought the coffee would taste just as good as those using the automatic coffee maker ($M_{\text{manual}} = 5.67$, $SD = 1.15$ vs. $M_{\text{automatic}} = 5.56$, $SD = 1.15$; $t(398) = 0.95$, $p = .344$, $d = 0.10$). All results reported above held when controlling for how tasty the coffee was perceived to be, suggesting that differences in perceived quality of care cannot account for the relationship between effort and self-perceptions.

Discussion

We again demonstrate that consumers feel like better caregivers when they put more effort into a caregiving task than when they use an effort-reducing product to perform that task. This study shows that investing effort into caregiving tasks makes consumers feel like better caregivers because they believe that it better signals how much they love and care about the recipient, independent from how well they believe that it functionally addresses the recipient's material needs. In addition, while participants in our initial studies received information about the counterfactual option, in this study as well as in the remaining studies assessing caregivers' self-perceptions, participants only considered a single option (e.g., in this study, participants read *only* about using an automatic or a manual coffee maker). Our results thus replicate in studies where participants evaluate a single option alone, addressing the possibility that consumers might feel like better caregivers not because they exerted more effort, but because they were made explicitly aware of the less effortful alternative.

STUDY 4: WHICH CAREGIVING TASKS HAVE THE MOST SYMBOLIC MEANING?

Effort may be more meaningful in some caregiving tasks than others. In particular, caring for a loved one's feelings may do more to show the caregiver's own feelings for that person than taking care of a loved one's physical self—something that is still important, but less unique and revealing of the relationship between the caregiver and the recipient. Indeed, participants in a pilot study on MTurk ($N = 100$; 55.0% male; $M_{\text{age}} = 38.20$ years, $SD = 10.52$) who were asked whether they can better show their love by taking care of a loved one's emotional or physical well-being (scale: $1 = \textit{Definitely by taking care of their emotional well-being}$ to $7 = \textit{Definitely by taking care of their physical well-being}$) gave a mean response ($M = 3.26$, SD

Study 5A: Method

Participants. Eight hundred seven adults (48.3% male; $M_{\text{age}} = 37.77$ years, $SD = 11.94$) recruited via Prolific Academic completed an online study for monetary compensation.

Procedure. We recruited participants who were living with their spouse or partner using one of Prolific's custom prescreening questions (i.e., Do you live with a spouse or partner?). Participants who qualified were offered the opportunity to give themselves (*self* condition) or their partner (*other* condition) a little TLC (i.e., tender loving care) during the COVID-19 pandemic in the form of freshly baked cookies. Participants then made a choice between cookie mix that needed additional effort before baking (*high effort* option) and frozen cookie dough that was ready to be baked (*low effort* option). Both options were offered by the same vendor (Le Marais Bakery), had a similar price, and yielded the same number of cookies (see full materials in [web appendix](#)). To make the task more real, participants read that we had partnered with Le Marais Bakery and that one participant would be randomly selected as the winner of a \$50 gift certificate to purchase the product they selected in the study.

Next, participants indicated on scales from $1 = \textit{not at all}$ to $7 = \textit{very much}$ how tasty the cookies they made with the mix and the frozen dough would be, how enjoyable the process of making cookies with both alternatives would be, and how effortful making cookies with both alternatives would be. Finally, participants completed three measures adapted from [Leung et al. \(2018\)](#) to measure the extent to which baking was part of their identity ($\alpha = 0.94$; e.g., "Baking is one of my favorite hobbies"), to test whether the preference for a high-effort option is driven solely by people who especially enjoy baking. Once the study closed, we randomly selected one winner and sent them a \$50 Giftly ecard to purchase the product they had selected.

Study 5A: Results

Perceptions of Effort. As intended, participants indicated that making cookies with a mix would be more effortful than with frozen dough ($M_{\text{high effort}} = 5.00$, $SD = 1.48$ vs. $M_{\text{low effort}} = 2.87$, $SD = 1.77$; $t(806) = 33.04$, $p < .001$, $d = 1.16$) and these perceptions did not vary by condition (high effort: $t(805) = 0.38$, $p = .704$, $d = 0.03$; low effort: $t(805) = 0.72$, $p = .474$, $d = 0.05$).

Choice. As predicted, more participants chose the more effortful option when taking care of their partner (44.1%) than themselves (36.0%; $\chi^2(1, N = 807) = 5.49$, $p = .019$, $\phi = 0.08$).

Quality of Care. Even though participants thought that baking cookies using a mix would result in tastier cookies than using the frozen dough ($M_{\text{high effort}} = 6.00$, $SD = 1.04$

vs. $M_{\text{low effort}} = 5.69$, $SD = 1.16$; $t(806) = 6.66$, $p < .001$, $d = 0.24$), the effect of condition on choice remained significant when controlling for how tasty both options were perceived to be ($b = 0.33$, $SE = 0.16$, $Wald = 4.47$, $p = .035$, $\text{Exp}(B) = 1.40$).

Baking Identity. Participants who had a strong identity as a baker were more likely to choose the effortful option ($b = 0.40$, $SE = 0.05$, $Wald = 77.40$, $p < .001$, $\text{Exp}(B) = 1.49$). Importantly, the effect of condition on choice remained significant ($b = 0.37$, $SE = 0.15$, $Wald = 5.94$, $p = .015$, $\text{Exp}(B) = 1.45$) when controlling for baking identity.

Enjoyment. Participants thought that making cookies with a mix would be as enjoyable as making cookies with frozen dough ($M_{\text{high effort}} = 5.24$, $SD = 1.57$ vs. $M_{\text{low effort}} = 5.22$, $SD = 1.38$; $t(806) = 0.27$, $p = .789$, $d = 0.01$).

Study 5B: Method

Participants. Four hundred adults (49.5% male; $M_{\text{age}} = 42.18$ years, $SD = 13.24$) recruited through MTurk completed an online study for monetary compensation.

Procedure. This study was similar to study 5A, where participants chose between baking cookies with a mix or with frozen dough to take care of someone else during the COVID-19 pandemic. Here, however, participants thought of the first name of a neighbor they felt very close to (*close* condition) or they did not feel very close to (*distant* condition) and decided which of the two cookies to bake for them. After, participants answered questions about functional and symbolic caregiving goals: they indicated on scales from $1 = \textit{not at all}$ to $7 = \textit{very much}$ to what extent it was important for them to (a) satisfy their neighbor's appetite for baked goods (functional goal) and (b) show they cared for their neighbor (symbolic goal). Participants then answered the follow-up measures as in study 5A about how tasty the cookies would be, how enjoyable the baking process would be, and how effortful it would be for them to bake cookies using both products. As a manipulation check, participants indicated how close their relationship with the neighbor they named earlier was ($1 = \textit{not at all close}$ to $7 = \textit{extremely close}$). Finally, participants answered the baking identity measures from study 5A ($\alpha = 0.95$). Again, we randomly sent one participant a \$50 Giftly ecard to purchase the product they had selected.

Study 5B: Results

Manipulation Checks. As intended, participants in the close condition reported they had a closer relationship with the neighbor they named than participants in the distant condition ($M_{\text{close}} = 5.72$, $SD = 1.04$ vs. $M_{\text{distant}} = 1.96$, $SD = 1.03$; $t(398) = 36.40$, $p < .001$, $d = 3.64$). Also, as intended, participants indicated that making cookies with a

buying soup for their partner achieved the goal of (a) satisfying their partner's hunger and (b) showing they love their partner. Next, participants reported how nutritious and tasty the soup would be ($1 = \text{not at all}$ to $7 = \text{very much}$) and how effortful they thought the task of providing dinner for their partner would be ($1 = \text{definitely effortless}$ to $7 = \text{definitely effortful}$).

Results

Perceptions of Effort. As intended, participants who cooked the soup reported they exerted more effort than those who bought the soup ($M_{\text{cooked}} = 5.14$, $SD = 1.54$ vs. $M_{\text{bought}} = 3.67$, $SD = 1.64$; $F(1, 598) = 129.27$, $p < .001$, $\eta_p^2 = 0.18$). We do not observe an effect of partner's past behavior ($F(1, 598) = 0.08$, $p = .776$, $\eta_p^2 < 0.01$) or a significant interaction ($F(1, 598) = 0.12$, $p = .726$, $\eta_p^2 < 0.01$), demonstrating that knowing about a partner's past effort on a similar task does not change individuals' perceptions about how effortful a task is.

Caregivers' Self-Perceptions. Both the caregiver's effort ($F(1, 598) = 45.55$, $p < .001$, $\eta_p^2 = 0.07$) and the partner's past behavior impacted self-perceptions ($F(1, 598) = 13.20$, $p < .001$, $\eta_p^2 = 0.02$). However, these two main effects were qualified by a significant interaction ($F(1, 598) = 11.09$, $p = .001$, $\eta_p^2 = 0.02$). When their partner cooked soup for them the last time they were sick, we replicate our effect: simple effects revealed that participants who cooked the soup felt like better caregivers than those who bought the soup ($M_{\text{cooked}} = 6.32$, $SD = 1.01$ vs. $M_{\text{bought}} = 5.36$, $SD = 1.46$; $F(1, 598) = 50.80$, $p < .001$, $\eta_p^2 = 0.08$). In contrast, the effect of effort is attenuated when there is a different norm because the partner bought soup last time: participants who bought the soup did not feel as bad about themselves ($M_{\text{cooked}} = 6.34$, $SD = 0.96$ vs. $M_{\text{bought}} = 6.02$, $SD = 1.16$; $F(1, 598) = 5.84$, $p = .016$, $\eta_p^2 = 0.01$). Examined differently, caregivers who cooked soup felt like equally good caregivers regardless of whether their partner previously cooked or bought soup for them ($F(1, 598) = 0.05$, $p = .830$, $\eta_p^2 < 0.01$), but caregivers who bought soup felt like worse caregivers when their partners previously cooked them soup than when their partners previously bought them soup ($F(1, 598) = 24.17$, $p < .001$, $\eta_p^2 = 0.04$).

Symbolic Goal. The caregiver's effort ($F(1, 598) = 25.09$, $p < .001$, $\eta_p^2 = 0.04$) and the partner's past behavior also impacted the symbolic meaning of the task ($F(1, 598) = 6.60$, $p = .010$, $\eta_p^2 = 0.01$); these main effects were qualified by a significant interaction ($F(1, 598) = 10.32$, $p = .001$, $\eta_p^2 = 0.02$). When their partner cooked soup for them the last time they were sick, participants who cooked soup thought their gesture had more symbolic meaning than those who bought soup ($M_{\text{cooked}} = 6.39$, $SD = 0.95$ vs. $M_{\text{bought}} = 5.65$, $SD = 1.33$; $F(1, 598) = 33.81$,

$p < .001$, $\eta_p^2 = 0.05$). In contrast, this effect is attenuated when participants read that their partner previously bought soup for them ($M_{\text{cooked}} = 6.33$, $SD = 1.03$ vs. $M_{\text{bought}} = 6.17$, $SD = 1.06$; $F(1, 598) = 1.61$, $p = .205$, $\eta_p^2 < 0.01$). Looked at another way, caregivers who cooked soup thought their gesture had symbolic meaning whether their partner previously cooked or bought soup for them ($F(1, 598) = 0.21$, $p = .649$, $\eta_p^2 < 0.01$), but caregivers who bought soup thought their gesture had less symbolic meaning when their partners previously cooked them soup than when their partners previously bought them soup ($F(1, 598) = 16.66$, $p < .001$, $\eta_p^2 = 0.03$).

Moderated Mediation. Finally, to test whether symbolic meaning explained the effect of effort on caregivers' self-perceptions, we conducted a moderated mediation analysis using model 7 in PROCESS MACRO with 5,000 bootstrapped samples (Hayes 2017). The results revealed a significant index of moderated mediation ($a \times b = 0.50$, $SE = 0.16$, 95% CI = [0.19, 0.80]). The indirect effect through symbolic meaning was significant when the partner cooked soup in a past situation ($a \times b = 0.64$, $SE = 0.12$, 95% CI = [0.40, 0.87]) but not when the partner bought soup in a past situation ($a \times b = 0.14$, $SE = 0.10$, 95% CI = [-0.06, 0.34]) (figure 1).

Functional Goal. We do not observe differences between conditions in terms of whether the soup satisfied the functional goal of caregiving. Participants who cooked soup reported that it would satisfy their partner's hunger to the same extent as did those who bought soup ($M_{\text{cooked}} = 6.00$, $SD = 1.22$ vs. $M_{\text{bought}} = 5.97$, $SD = 1.23$; $F(1, 598) = 0.10$, $p = .751$, $\eta_p^2 < 0.01$).

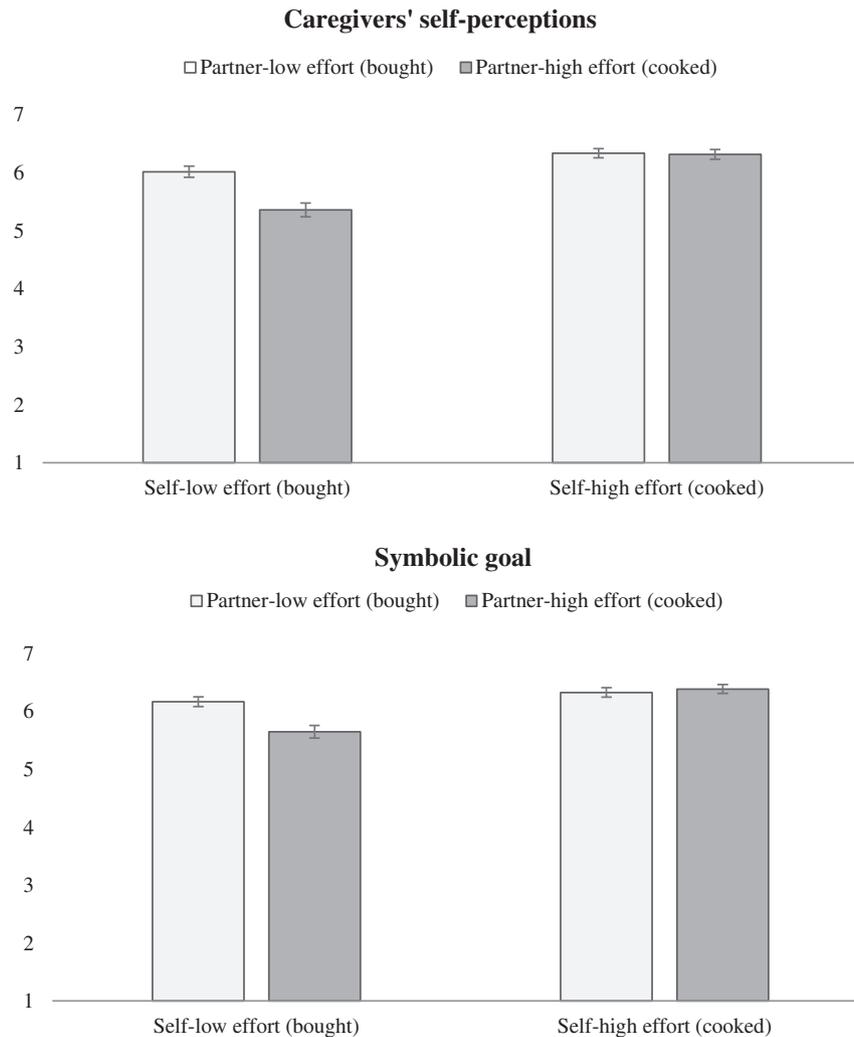
Quality of Care. Participants thought that home-cooked soup would taste better ($M_{\text{cooked}} = 5.97$, $SD = 1.14$ vs. $M_{\text{bought}} = 5.43$, $SD = 1.19$; $F(1, 598) = 32.70$, $p < .001$, $\eta_p^2 = 0.05$) and be more nutritious ($M_{\text{cooked}} = 5.96$, $SD = 1.17$ vs. $M_{\text{bought}} = 5.19$, $SD = 1.24$; $F(1, 598) = 61.73$, $p < .001$, $\eta_p^2 = 0.09$) than store-bought soup. However, the results reported above do not change when controlling for taste and nutrition ratings: for example, the interaction of self and partner effort on self-perceptions remained significant ($F(1, 596) = 9.82$, $p = .002$, $\eta_p^2 = 0.02$; see all robustness checks in web appendix).

Discussion

Study 6 shows that, when the recipient of care sets a relationship norm that effort is not expected, effort-reducing products have a smaller impact on caregiver self-perceptions. That is, in situations when the recipient has signaled that effort does not carry as much symbolic currency in the relationship, consumers do not feel as bad about themselves when using products that simplify caregiving. Given that effort-reducing products do have benefits even in relationships where effort is still part of how people show they love each other, we end by

FIGURE 1

STUDY 6: PARTNERS' PAST EFFORT MODERATES THE EFFECT OF CAREGIVERS' EFFORT ON SELF-PERCEPTIONS AND SYMBOLIC GOAL



Note: "Caregivers' self-perceptions" is the average of three items ("I feel like a dedicated partner," "I feel like a loving partner," and "I feel like a good partner") measured on scales from 1 = not at all to 7 = very much; "Symbolic goal" is the response to the question, "To what extent do you think the task of providing dinner shows you love your partner?," on a scale from 1 = not at all to 7 = very much.

examining whether marketers can create the best of both worlds, by developing ads that increase interest in products that make caring for others easier.

STUDY 7: REFRAMING INTERVENTION

The goal of this last study is to test an intervention to increase the appeal of effort-reducing products meant to help consumers take care of close others. We suggest that, rather than highlighting how a product can make caregiving less effortful, acknowledging the effort that caregivers

put into caregiving and highlighting how the product can support those efforts is a strategy that marketers could use to promote usage of effort-reducing products. Here, we return to the SNOO, the bassinette that automatically soothes infants. In partnership with its manufacturer, Happiest Baby, we shared two different ads on social media that held constant the quality of care and either highlighted how the SNOO could make parenting less effortful or acknowledged the effort that parents put into caring for their babies and highlighted how the SNOO could help. We expected those exposed to the ads to be less interested in

and therefore less likely to click on the ad that emphasized how the SNOO makes parenting easier.

Method

Participants. Our participants were Facebook and Instagram users who were targeted with our experimental ads over 14 days (from January 21, 2021, through February 3, 2021). The marketing team at Happiest Baby determined the target audience using information from previous campaigns (e.g., Women 24–45 residing in the United States; see [web appendix](#)) and also set the budget for this campaign (\$5,000). We preregistered this study on AsPredicted.org (# 56176), where we specified that the campaign would run until the funds allocated to it were spent. The campaign generated a total of 1,157,468 impressions.

Procedure. We worked closely with the marketing team at Happiest Baby to create two ads featuring the SNOO Smart Sleeper, which varied how this effort-reducing product was framed: by highlighting how the SNOO could making parenting easier (i.e., “With SNOO, get ZZZs with ease;” *effort reduction* condition) or by acknowledging parents’ efforts and highlighting how the SNOO could help (i.e., “You give the XOXOs, SNOO gives the ZZZs;” *effort acknowledgment* condition; see ads in [figure 2](#)).

The marketing team at Happiest Baby was responsible for administering the study. Happiest Baby launched a social media campaign in which they randomly assigned people of the specified population to view one of these two ads. The campaign ran on Facebook and Instagram simultaneously including placements in users’ newsfeed, in-stream, right-hand column, and Instagram explore. To ensure that users were not exposed to both ads across the two platforms, the company used an A/B testing feature that allows them to divide their budget equally and randomly split exposure of the specified population between each ad version. This feature ensured that audiences were of similar size, statistically comparable, and not overlapping. The number of people who clicked on each ad to learn more about the product served as our dependent measure. Once the campaign was over, Happiest Baby sent a report summarizing performance by ad; we did not receive individual-level data.

Results

The campaign generated a total of 18,404 clicks across the 1,157,468 total impressions. A chi-square test revealed that the effort acknowledgment ad was more effective in generating traffic to the company’s website: a greater percentage of people clicked on the ad that acknowledged the effort that parents put into caring for their babies and highlighted how the SNOO could support those efforts

(2.22%) than on the ad that highlighted how the SNOO could making parenting easier (1.08%; $\chi^2(1) = 2,362.10$, $p < .001$, $\phi = 0.05$).

Discussion

Study 7 tested an intervention that marketers could adopt when advertising effort-reducing products to take care of close others: rather than emphasizing how such products require less effort on the part of users, marketers should consider acknowledging caregivers’ efforts and how the product can support those efforts.

This strategy is not limited to domains where the alternative to using the effort-reducing product directly shows love, like how the alternative to using the SNOO involves cuddling or holding an infant. In an online study ($N = 601$ MTurkers; 48.4% male; $M_{\text{age}} = 40.53$ years, $SD = 12.55$), we mocked up marketing materials that framed a pre-planned meal service by highlighting how the service could reduce the effort required to prepare meals for one’s family or by acknowledging the effort the caregiver would put into preparing family meals. Participants who saw the *effort acknowledgment* ad reported that they would feel like better caregivers if they used this meal service to feed their family ($M = 5.51$, $SD = 1.26$) than participants who saw the *effort reduction* ad ($M = 5.29$, $SD = 1.32$; $t(599) = 2.11$, $p = .035$, $d = 0.17$; see details of supplemental study 3 in [web appendix](#)). These results, along with those of study 7, suggest that marketers should carefully consider when to emphasize the effort-reducing benefits of their products, and when they should acknowledge consumers’ efforts and emphasize how their products can help consumers show how much they care.

GENERAL DISCUSSION

Consumers feel like better caregivers when they put more effort into caregiving tasks than when they use effort-reducing products to perform such tasks. These effects stem from the symbolic meaning of effort in caregiving, independent of its functional ability to address recipients’ material needs or its effect on perceived quality of care: choosing more effortful routes to caring for loved ones makes consumers feel that they are doing a better job of demonstrating that they deeply care about the close others they are caring for.

The finding that consumers feel better about themselves because they believe their caregiving gestures have more symbolic meaning is consistent with past work in other domains, like gift-giving (Flynn and Adams 2009; Zhang and Epley 2012) and taboo trade-offs (McGraw and Tetlock 2005; Tetlock 2003), that have shown that consumers think it is important—even morally important—not to take shortcuts on behalf of those they love. However, even though qualitative work on outsourcing parenting tasks has also suggested similar

FIGURE 2

STUDY 7: ADS USED IN SOCIAL MEDIA CAMPAIGN

EFFORT REDUCTION CONDITION

 **Happiest Baby** ✓
Sponsored · 🌐

SNOO Smart Sleeper: The responsive bassinet that makes parenting easier.

With SNOO, get ZZZs with ease!



HAPPIESTBABY.COM
SNOO Smart Sleeper
You can now rent SNOO Smart ...

[LEARN MORE](#)

EFFORT ACKNOWLEDGMENT CONDITION

 **Happiest Baby** ✓
Sponsored · 🌐

SNOO Smart Sleeper: The responsive bassinet that can help with parenting.

You give the XOXOs, SNOO gives the ZZZs!



HAPPIESTBABY.COM
SNOO Smart Sleeper
You can now rent SNOO Smart ...

[LEARN MORE](#)

hesitations (Epp and Velagaleti 2014), recent experimental research indicates that outsourcing household tasks—that is, by paying for housekeeping or yardwork—can make consumers happier (Whillans et al. 2017). How do we reconcile the negative emotional consequences that we demonstrate here with the emotional benefits of outsourcing? Notably, Whillans et al. (2017) studied the outsourcing of disliked tasks that are more indirect forms of caregiving (e.g., doing laundry, mowing the lawn), rather than the direct ministrations that we examined here (e.g., taking care of sick partners, making elderly relatives feel cared for). We suspect that taking shortcuts on indirect caregiving tasks would prompt less negative reactions because such tasks are weaker symbolic signals in the first place. In addition, we observe this preference for effort even in situations when recipients might not be aware of how the

caregiver performed the task (see supplemental study 4 in web appendix). This suggests that consumers are trying to signal to themselves (Bodner and Prelec 2003)—and not just to the recipient of their care or to other observers—that they are good caregivers by putting effort into caregiving.

Theoretical Implications

With respect to theory, we contribute to the literature on effort valuation in several ways. First, we show that investing effort plays a critical role when providing direct care to close others: the amount of effort that consumers exert in a caregiving task shapes their self-perceptions as caregivers, even when using effort-reducing products allows consumers to provide equally high-quality care to the

recipient. By focusing on the interpersonal and understudied context of caregiving, we demonstrate that the effect of effort is unique to situations involving caring for close others and is less applicable when caring for oneself or more distant others. And whereas prior work has shown that effort affects consumers' evaluation of products (Kruger et al. 2004), we show that even when controlling for quality of care, consumers believe that effort makes caregiving symbolically meaningful. More generally, we contribute to the literature on how spending different resources reflects on the self: whereas recent work has focused on understanding the differences between time and money (Mogilner and Aaker 2009; Reed et al. 2007; Whillans et al. 2016), effort as a psychologically distinct resource has been less studied.

We also demonstrate that this preference for effort is distinct from a preference for human labor versus automation (Leung et al. 2018), as the low effort alternative in some of our studies still required human labor. Future work could further examine how consumers perceive *others'* effort. For example, prior research has shown that consumers often value products that are made by hand because they seem to "contain love" (Fuchs, Schreier, Van Osselaer 2015), supporting that idea that consumers also value effort from companies (Morales 2005). However, understanding whose effort is most appreciated and how effort valuation and its symbolic meaning differs across different consumption contexts (e.g., individual vs. joint consumption, for caregiving vs. gift-giving purposes) is important. This line of research also has the potential to contribute to the understanding of new trends including the sharing economy (Eckhardt et al. 2019) that now offers consumers the ability to outsource an infinite number of tasks. For instance, could task outsourcing apps increase their appeal by emphasizing the people who complete the tasks (and the effort they put in) rather than the ease that their technology creates?

We also join the growing call for research on consumer decision-making involving close others (Cavanaugh 2016; Liu et al. 2019). We answer this call by examining how consumers balance two types of goals they have when providing direct care to close others: functional goals (addressing the recipient's tangible needs) and symbolic goals (showing they love and care about the recipient). Future research could examine the interpersonal consequences of exerting effort in caregiving tasks. For example, how do recipients weigh effort versus quality? Although we controlled for perceived quality of care to the best of our ability in our studies, we acknowledge that satisfying symbolic caregiving goals is unlikely to be the sole reason why effort is preferred by caregivers, and that perceived quality of care may play a role in many situations. Subsequent research could tease apart when quality matters versus when how hard one tries or even whether one merely makes the gesture is what counts. Similarly, future

research could also explore the long-term consequences of exerting effort in caregiving tasks using longitudinal methods. Whereas all the studies presented in this investigation correspond to one-shot opportunities, caregivers are often responsible for doing a series of tasks for the same recipients over time. How do caregivers balance the amount of effort they exert in a relationship as it continues? Research in other domains suggests that doing the "hard" thing can subsequently license consumers to feel free to take an easier path the next time around (Gneezy et al. 2012; Khan and Dhar 2006). Is the same true in caregiving?

Practical Implications

This work also has important marketing implications for developing and communicating about products that simplify caregiving. An important question for marketers is whether there are ways to make effort-reducing products to take care of loved ones more appealing, so that consumers do not avoid them for fear of feeling like bad caregivers. One solution could be to modify how effort-reducing products are advertised; as study 7 demonstrates, reminding consumers that products save effort in caregiving situations can backfire. Future research could also explore other marketing strategies such as highlighting the long-term well-being benefits of using effort-reducing products or the fact that these products can help consumers juggle multiple caregiving responsibilities they have. After all, it is not just marketers who would benefit from greater sales of effort-reducing products—the consumers who use them would, as well.

This work also has implications for service research, especially in the healthcare domain, in which consumers can seek help from professional services to care for sick or elderly relatives. For example, the findings from study 4 speak to when and why caregivers might be reluctant to hire professional help, even when they themselves might be poorly prepared to provide care (Berry et al. 2020). Also worrisome, forgoing effort-reducing products and services in these situations might lead to caregivers' neglecting their own health and well-being (Kim and Given 2008), so we hope this work inspires future research that bridges the literatures on effort, healthcare, and family caregiving.

Conclusion

Although many people often find effort-reducing products to be appealing, we demonstrate a notable exception: when those products are intended to be used to care for and show love to others. Using effort-reducing products for such purposes leads caregivers to feel like they are doing a worse job, even when the objective outcome of their caregiving is equivalent to that of using more effortful processes. Hence, marketers should place a high priority on

giving consumers ways to care for their loved ones that make their lives easier but also help them sleep more soundly, knowing the love they put into their caregiving truly shows.

DATA COLLECTION INFORMATION

The first author collected data for online studies via Amazon Mechanical Turk or Prolific Academic in January 2020 (study 1A), February 2020 (studies 2 and 3), March 2020 (study 6), July 2020 (study 5A), August 2020 (study 5B), and December 2020 (study 4). The third author supervised data collection for the laboratory study (study 1B), conducted in the behavioral laboratory at Indiana University in February–April 2017. The first and fourth authors supervised data collection of study 7, administered by our field partner in January–February 2021. The data for all studies were primarily analyzed by the first author under the supervision of the other three authors.

All study materials, preregistration documents, and data (except for study 7 where we did not receive individual-level data) are available on the Open Science Framework: <https://osf.io/jr4zw/>.

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