When choice is a double-edged sword: Understanding maximizers' paradoxical experiences with choice

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ABSTRACT

Why do maximizers—those who seek to make the very best choice by exhaustively searching out and comparing alternatives—place such high value on choice in the face of so much regret, dissatisfaction, and stress during the choice process? In five studies (total $N = 1479$), we drew on the two-component model of maximizing to better understand this *maximization paradox*. Distinguishing between the goal of choosing the best and the strategy of alternative search, we found that the two components of maximizing predicted opposing experiences with choice—the maximization goal was related to positive experiences with and beliefs about choice, whereas the maximization strategy was related to negative experiences with and beliefs about choice. Considering the two components of maximizing separately thus helps explain why maximizers have both more positive *and* more negative reactions to choice than do satisficers.

1. Introduction

Choice can bring both happiness and despair. On one hand, having the freedom to choose can increase motivation, satisfaction, and well-being (e.g., Bone, Christensen, & Williams, 2014; Fischer & Boer, 2011; Reibstein, Youngblood, & Fromkin, 1975; Ryan & Deci, 2000; Seligman, 1975). Yet, on the other, choice can overwhelm consumers, reducing motivation, amplifying regret, and undermining happiness (e.g., Botti & Iyengar, 2006; Botti, Orfali, & Iyengar, 2009; Broniarczyk & Griffin, 2014; Chernev, Böckenholt, & Goodman, 2015; Iyengar & Lepper, 2000; Schwartz, 2000, 2016). Indeed, a large body of work on choice has shown that there are both positive and negative aspects of choice—some choice is liberating, too much choice is burdensome, and whether people desire and benefit from more choice varies across individuals, decision settings, and cultural contexts (e.g., Chernev et al., 2015; Grant & Schwartz, 2011; Markus & Schwartz, 2010; Schwartz & Cheek, 2017).

That choice can be a "double-edged sword" is perhaps most apparent to *maximizers*, individuals who seek to make the best possible choice by exhaustively searching out and comparing alternatives (Cheek & Schwartz, 2016; Schwartz et al., 2002; Simon, 1955, 1956). Relative to *satisficers*—who choose "good enough" options and terminate searches for alternatives when they encounter a suitable option, even if it is not the "best" possible option—maximizers are often less satisfied with their choices (e.g., Iyengar, Wells, & Schwartz, 2006;

Sparks, Ehrlinger, & Eibach, 2012) and experience more post-decision regret (e.g., Purvis, Howell, & Iyer, 2011; Schwartz et al., 2002; though see Shiner, 2015). Maximizers also generally report lower hedonic well-being than satisficers across a variety of measures ranging from assessments of social adjustment to suicidality, and this is particularly true when researchers use measures of maximizing that include the alternative search strategy, as elaborated below (e.g., Bruine de Bruin, Dombrovski, Parker, & Szanto, 2016; Chang et al., 2011; Schwartz et al., 2002; for a review see Cheek & Schwartz, 2016). However, despite these negative subjective outcomes, maximizers nonetheless like choice *more* than satisficers; not only do they report preferring more options than satisficers, they actively seek out more options and are even willing to sacrifice more resources (e.g., time and money) to gain access to larger choice sets (e.g., Dar-Nimrod, Rawn, Lehman, & Schwartz, 2009; Iyenger et al., 2006; Reed, Mikels, & Löckenhoff, 2013). Maximizers' extensive quest for and comparison among alternatives sometimes pays off, yielding more meaningful and objectively better—if subjectively less satisfying—choice outcomes (Iyengar et al., 2006; Kokkoris, 2016, 2018).

1.1. The maximization paradox and the two-component model of maximization

Dar-Nimrod et al. (2009) coined the term *maximization paradox* in

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reference to the contradictory beliefs and experiences maximizers display in choice contexts by preferring more choice to less while also experiencing worse subjective outcomes when they choose among more options. This paradox is puzzling—why do maximizers continue to value choice in the face of substantial dissatisfaction, regret, and stress during the choice process? Previous research suggests that maximizers have contradictory experiences with choice in part because they maximize *both* positive and negative outcomes (Polman, 2010), which may both confirm a belief that choice can be good while also creating an overall negative subjective experience (e.g., because negatives outcomes hurt more than positive outcomes help; Rozin & Royzman, 2001). More recently, Luan and Li (2017) proposed that the maximization paradox results from a potentially futile belief that it is possible to objectively identify the best alternative. They argued that this belief motivates maximizers to expend more energy during the choice process, but that, because it is often impossible to verify that one has successfully chosen the best option, maximizers end up more regretful despite their increased effort.

Although previous attempts to understand maximizers' contradictory approach to choice have provided valuable insight into the maximization paradox, they have tended to focus on the broad construct of maximizing without considering separate components of the construct. Here, we suggest that examining the different components of maximizing may shed further light on how and why maximizers appear to both enjoy and suffer from choice. To do so, we draw on Cheek and Schwartz's (2016) recently proposed *two-component model of maximization*, which delineates two aspects of maximizing—the *maximization goal* and the *maximization strategy*. According to the two-component model, maximizers have the goal of making the best possible choice, and they pursue this goal through the strategy of *alternative search*, which entails attempting to exhaustively identify and compare available alternatives to find the best option. We suggest that these two components are often related to opposing beliefs about and experiences with choice, and that this contradiction helps explain previous research on the maximization paradox.

Specifically, we argue that, when considered separately from alternative search, the maximization goal of choosing the best is generally associated with positive beliefs about choice, at least in a North American cultural context. Researchers using maximizing scales and subscales that measure the maximization goal often find positive correlations between wanting the best and positive outcomes such as life satisfaction and happiness (e.g., Dalal, Diab, Zhu, & Hwang, 2015), and the maximization goal may even have positive choice outcomes when choosers do not employ the alternative search strategy (e.g., Hughes & Scholer, 2017). We thus hypothesize that the goal of choosing the best option will be associated with a generally positive view of choice, along with a desire for more choice. Indeed, this positive view of choice may explain why maximizers employ the alternative search strategy—wanting to choose the best predicts believing that more choice is better, which then leads maximizers to seek out and compare many alternatives (Cheek & Schwartz, 2016).

In contrast, we further suggest that alternative search is generally associated with negative choice experiences. Seeking out many different alternatives requires extensive time and energy, and comparing many different options decreases satisfaction, increases regret, and produces confusion and stress, resulting in the experience of choice overload (e.g., Brenner, Rottenstreich, & Sood, 1999; Broniarczyk & Griffin, 2014; Iyengar & Lepper, 2000; Schwartz, 2000; Schwartz et al., 2002; Schwartz & Cheek, 2017). Indeed, previous research suggests that it is alternative search, rather than wanting the best, that predicts many of the negative outcomes of maximizing (e.g., Cheek & Schwartz, 2016; Dalal et al., 2015; Hughes & Scholer, 2017). Accordingly, we hypothesize that, in contrast to the maximization goal of choosing the best, the maximization strategy of alternative search will be associated with negative beliefs about and experiences with choice.

1.2. The present research

We conducted five studies to test the hypothesis that the two components of maximizing are related to opposite beliefs about and experiences with choice, and that this contradiction helps explain the maximization paradox. In Study 1, we developed measures of positive and negative choice experiences to test the hypothesis that maximizers report *both* more positive and more negative choice experiences. We predicted that this paradoxical pattern would emerge because the maximization goal would be positively related to positive, but not negative, choice experiences, whereas the maximization strategy would be positively related to negative, but not positive, choice experiences. Study 2 replicated and extended Study 1 by exploring whether maximizers' reports of the number of options they ideally want are explained by positive experiences with choice, whereas maximizers' reports of the number of options they find overwhelming are explained by negative experiences with choice. Three final studies compared intraindividual differences by asking participants to report on their choice set size preferences when adopting maximizing versus satisficing goals (Study 3), and their threshold for an overwhelming number of options when adopting maximizing versus satisficing strategies (Studies 4a and 4b).

Participants completed all studies along with larger, unrelated studies, and sample sizes were determined based on those studies. We included our correlational studies with other studies with the requirement that at least 250 participants be recruited to provide stable correlation coefficient estimates (Schönbrodt & Perugini, 2013). We required that there be at least 130 participants in experimental studies to have an 80% chance of detecting an effect of $dz = 0.25$ with an alpha of 0.05 in a within-subjects design (calculated using G*power; Faul, Erdfelder, Lang, & Buchner, 2007). We report all relevant measures, manipulations, and exclusions, and data and materials are available through the Open Science Framework: https://osf.io/zehr5/.

2. Study 1

2.1. Method

2.1.1. Participants

A total of 501 participants completed Study 1 through Amazon's Mechanical Turk (mTurk). To be included in analyses, participants had to pass an instructional manipulation check (Oppenheimer, Meyvis, & Davidenko, 2009) and indicate that they did not respond randomly at any time during the study (to encourage honest responses, we emphasized that indicating that one had responded randomly would not affect compensation). Ultimately, 453 participants (231 women, 220 men, 2 who selected neither option) met these inclusion criteria and were included in analyses.[1]

2.1.2. Materials

Participants completed the 13-item Maximization Scale (MS) and 5-item Regret Scale developed by Schwartz et al. (2002). Although Schwartz et al. originally tallied a participant's simple 13-item total score to measure maximizing, Nenkov, Morrin, Ward, Schwartz, and Hulland (2008) showed that the MS comprises three factors that can be scored separately—high standards, which measures the maximization goal of desiring the best option, alternative search, which measures the maximization strategy, and decision difficulty. Subsequent research has resulted in substantial debate about how to measure maximizing and, indeed, what it even means to maximize. As mentioned above, we

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[1] In this and all subsequent studies, participants completed a demographic questionnaire including gender and several other variables. This questionnaire is included on OSF and full demographic data are included in data files posted on OSF, but for brevity we do not report full demographics here.

Table 1
Principle component loadings of Positive and Negative Choice Experiences Scales.

Item	Study 1		Study 2	
	Component 1	Component 2	Component 1	Component 2
Positive choice experiences scale				
1. You can never have too much choice.	**0.53**	−0.27	**0.57**	−0.13
2. It's always good to be able to make choices.	**0.80**	−0.03	**0.82**	−0.11
3. It's better to make your own choices than to have somebody else make them for you.	**0.71**	0.00	**0.72**	−0.06
4. It's great to be able to choose from many different options.	**0.85**	−0.07	**0.87**	0.08
Negative choice experiences scale				
1. Making choices can feel overwhelming.	−0.07	**0.87**	−0.02	**0.88**
2. Having to choose can be a stressful burden sometimes.	0.04	**0.88**	−0.04	**0.87**
3. I often feel like there can be too many options to choose from when making decisions.	0.09	**0.88**	−0.18	**0.83**
4. Walking into the grocery store, I feel like there are way too many options to choose from.	−0.22	**0.67**	−0.20	**0.71**

Note. Loadings above 0.5 are bolded.

followed Cheek and Schwartz's (2016) two-component model of maximizing in the present research, examining three main scales of interest. First, we scored a 9-item composite maximizing score that included the alternative search and high standards items from the MS (MS-9). We then scored high standards and alternative search subscales to examine each maximizing component separately (following Bruine de Bruin et al., 2016). While we do not believe that decision difficulty and regret are an integral part of maximizing (though both could be both causes and consequences of maximizing; see Cheek & Schwartz, 2016), previous researchers have advocated for such a conceptualization (e.g., Richardson, Ye, Ege, Suh, & Rice, 2014; Turner, Rim, Betz, & Nygren, 2012). Accordingly, we also report correlations with the decision difficulty subscale, the 13-item total MS composite that includes decision difficulty (MS-13), and the Regret Scale to facilitate comparison with previous and future work.

We developed four items to measure positive experiences with and beliefs about choice (e.g., "You can never have too much choice") and four items to measure negative experiences with and beliefs about choice (e.g., "Making choices can feel overwhelming"). As can be seen in Table 1, a principle component analysis with a varimax rotation indicated that these items loaded well on two components. We labeled these components the Positive and Negative Choice Experiences Scales.

2.2. Results and discussion

Correlations among measures in Study 1 are shown in Table 2. As predicted, our composite measure of maximizing (MS-9), comprising high standards and alternative search, was positively associated with both positive and negative experiences with choice. Importantly, the high standards subscale was positively correlated with positive choice experiences and unrelated to negative choice experiences, whereas the

Table 2
Correlations among measures from Study 1.

Scale	MS-13	MS-9	HS	AS	DD	Regret	NCE	PCE
MS-13	(0.75)							
MS-9	**0.90**	(0.68)						
HS	**0.52**	**0.63**	(0.62)					
AS	**0.85**	**0.91**	0.26	(0.67)				
DD	**0.74**	**0.37**	0.13	**0.39**	(0.70)			
Regret	**0.58**	**0.53**	0.20	**0.55**	**0.40**	(0.81)		
NCE	**0.43**	**0.29**	0.05	**0.34**	**0.46**	**0.50**	(0.85)	
PCE	0.02	**0.10**	0.25	0.00	−0.11	−0.12	−0.24	(0.68)

Note. MS-13 = Maximization Scale with high standards, alternative search, and decision difficulty. MS-9 = Maximization Scale with only high standards and alternative search. HS = high standards. AS = alternative search. DD = decision difficulty. PCE = Positive Choice Experiences Scale. NCE = Negative Choice Experiences Scale. Cronbach's alpha values are provided in parentheses. Bolded correlations are significant at *p* < .05.

reverse was true for the alternative search subscale. Regret and decision difficulty were positively correlated with high standards, alternative search, and negative choice experiences, and negatively correlated with positive choice experiences.

Study 1 thus provided preliminary support for our hypothesis that maximizers have both more positive and more negative experiences with choice, and that distinguishing between the two components of maximizing—measured here with the high standards and alternative search subscales of the MS—helps explain this paradoxical pattern. In Study 2, we sought to replicate Study 1, as well as explore how considering separate components of maximizing and positive and negative choice experiences related to participants' reports of ideal and overwhelming choice set sizes.

3. Study 2

3.1. Method

3.1.1. Participants

A total of 301 participants were recruited from mTurk for Study 2, of whom 282 met the inclusion criteria, which were the same criteria as in Study 1, and were included in analyses (157 women, 124 men, 1 who selected neither option).

3.1.2. Materials

Participants completed the measures from Study 1 along with two additional measures. Drawing on Reed, Mikels, and Simon (2008), we presented participants with five consumer products (toothpaste, cookies, soda, cars, and cell phones) and asked them to indicate the number of options that would overwhelm them, using a 15-point scale ranging from 2 to 30+. Responses across the five items were averaged to create an index indicating the threshold that each participant considered to be an overwhelming number of options. For these same consumer products, participants also indicated the number of options they would ideally want offered, using the same 15-point scales. These were averaged to create an index representing an ideal number of options. Note that the ideal number of options and the number of options that would prove overwhelming need not be in close proximity: there may be a range of options above the ideal number that still do not overwhelm a chooser. We expected that high standards and positive choice experiences would predict reporting a larger ideal number of options, whereas alternative search and negative choice experiences would predict a smaller number of overwhelming options (suggesting that it takes fewer options to overwhelm those high in alternative search and negative choice experiences).

3.2. Results and discussion

Correlations among measures in Study 2 are shown in Table 3.

Table 3
Correlations among measures from Study 2.

Scale	MS-13	MS-9	HS	AS	DD	Regret	NCE	PCE	INC	ONC
MS-13	(0.77)									
MS-9	**0.91**	(0.70)								
HS	**0.59**	**0.68**	(0.61)							
AS	**0.86**	**0.93**	**0.36**	(0.65)						
DD	**0.76**	**0.42**	**0.22**	**0.42**	(0.71)					
Regret	**0.56**	**0.48**	0.18	**0.53**	**0.47**	(0.85)				
NCE	**0.44**	**0.25**	0.01	**0.32**	**0.57**	**0.56**	(0.85)			
PCE	0.00	**0.16**	**0.27**	0.06	−0.24	−0.10	−**0.25**	(0.72)		
INC	−0.08	0.01	0.06	−0.02	−0.19	−0.07	−**0.23**	**0.35**	(0.88)	
ONC	−**0.19**	−0.10	0.00	−**0.13**	−**0.25**	−**0.24**	−**0.34**	**0.33**	**0.70**	(0.88)

Note. MS-13 = Maximization Scale with high standards, alternative search, and decision difficulty. MS-9 = Maximization Scale with only high standards and alternative search. HS = high standards. AS = alternative search. DD = decision difficulty. PCE = Positive Choice Experiences Scale. NCE = Negative Choice Experiences Scale. INC = Ideal Number of Choices. ONC = Overwhelming Number of Choices. Cronbach's alpha values are provided in parentheses. Bolded correlations are significant at $p < .05$.

Replicating Study 1, our composite measure of maximizing (MS-9) was positively correlated with both positive and negative choice experiences. Also replicating Study 1, high standards was positively correlated with positive choice experiences but unrelated to negative choice experiences, whereas the reverse was true for alternative search. Moreover, having more positive choice experiences predicted preferring a higher number of ideal options and requiring more options before becoming overwhelmed, whereas having more negative choice experiences predicted reporting a lower number of ideal options and requiring fewer options before becoming overwhelmed.

As predicted, alternative search was negatively correlated with participants' reported threshold for becoming overwhelmed by an array of options. We conducted a mediation analysis with 5000 bootstrapped samples using Hayes' (2013) PROCESS macro for SPSS to examine whether negative choice experiences mediated the relation between alternative search and the overwhelming number of choices. A significant indirect effect emerged, −0.32, 95% CI [−0.51, −0.18], such that alternative search predicted having more negative choice experiences, which predicted having a lower threshold for an overwhelming number of options (see Fig. 1).

Contrary to predictions, high standards were not significantly related to reporting a larger ideal choice set size. To examine whether high standards was nonetheless indirectly related to preferring a larger choice set size through positive choice experiences (Hayes, 2013; Hayes & Rockwood, 2017), we conducted another mediation analysis with 5000 bootstrapped samples. This analysis revealed a significant indirect effect, 0.27, 95% CI [0.13, 0.44], such that high standards predicted having more positive choice experiences, which predicted a preference for a larger ideal number of choices (see Fig. 2). Thus, although our

original prediction was not confirmed, the maximization goal may still be indirectly related to a desire for larger choice sets through positive choice experiences.

Our first two studies provided support for our hypothesis that the maximization goal would be associated with positive experiences with choice, whereas the maximization strategy would be associated with negative experiences with choice. However, our correlational designs do not support causal claims about how the two components of maximizing relate to beliefs about and preferences for choice. Moreover, our effects were relatively modest in magnitude (though within the range commonly found in personality and individual differences research; see Gignac & Szodorai, 2016), and in Study 2, we did not find the predicted correlation between the individual differences in the maximizing goal and the ideal number of options in a choice set (cf. Dar-Nimrod et al., 2009; Iyengar et al., 2006; Reed et al., 2013). One possibility is that our studies were limited by potential weaknesses in our choice of scale to measure maximizing, a subject of ongoing debate (e.g., Cheek & Schwartz, 2016; Dalal et al., 2015; Turner et al., 2012). We used the MS to facilitate comparisons between the current research and Dar-Nimrod et al.'s (2009) original research on the maximization paradox, which relied on the MS. As Cheek and Schwartz (2016) and several others have argued, however, the MS has important limitations as a measure of maximizing. To address concerns about the potential limitations of the MS and to move beyond correlational designs, in the following three experiments, we examined how asking participants to adopt a maximizing or satisficing mindset influenced their choice set size preferences and reactions.
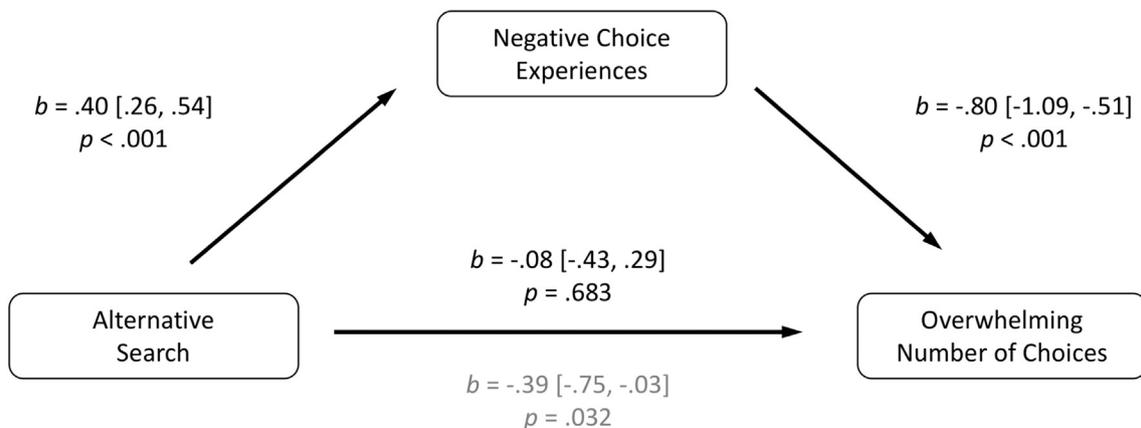
Fig. 1. Mediation analysis with alternative search, negative choice experiences, and overwhelming number of choices.
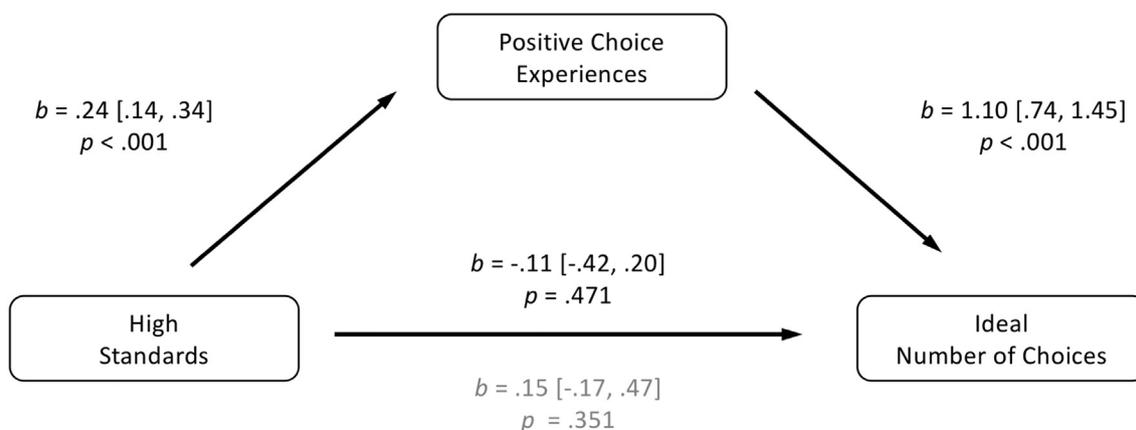*Note.* Coefficients are unstandardized. The total effect is shown in gray.

Fig. 2. Mediation analysis with high standards, positive choice experiences, and ideal number of choices.
Note. Coefficients are unstandardized. The total effect is shown in gray.

4. Study 3

In Study 3, we asked participants to imagine making choices with both a maximizing goal of making the best possible choice and a satisficing goal of making a choice that is good enough whether or not it is the best. We predicted that when participants imagined adopting a maximizing goal, they would report a higher number of ideal options to choose from than when they imagined adopting a satisficing goal.

4.1. Method

4.1.1. Participants

A total of 150 participants were recruited from mTurk for Study 3, of whom 103 met the inclusion criteria—which comprised passing two attentional manipulation checks and indicating that they did not respond randomly—and were included in analyses (31 women and 72 men).

4.1.2. Materials and procedure

Participants were asked to imagine making choices with a maximizing and a satisficing goal. In the maximizing goal condition, participants read the following description: "Imagine you are going to make some choices. You are going to try to make the best choice possible. You don't want to settle—your goal is to choose the very best option." In the satisficing goal condition, participants instead read:

Imagine you are going to make some choices. You are going to try to make a "good enough" choice. You don't need to make the very best choice possible–you just want something that meets your standards, regardless of whether it's the best possible option or not.

After reading about a particular goal, participants indicated how many options they would want to choose from when making three choices—a new car to buy, a new cellphone to buy, and a movie to see. Each response was given on the same 15-point scale used in Study 2 with labels ranging from 2 options to 30+ options in increments of 2. Participants indicated how many options they would want to choose from for each item when using each goal, and goals were presented in a random order (order did not influence results, $p = .903$).

4.2. Results and discussion

As predicted, participants reported wanting more options from which to choose when imagining adopting a maximizing goal ($M = 7.69$, $SD = 3.63$) than when imaging adopting a satisficing goal ($M = 5.26$, $SD = 3.07$), paired $t(102) = 8.58$, $p < .001$, $d_z = 0.66$, 95% CI [0.48, 0.85]. Thus, Study 3 supports our prediction that the maximizing goal is associated with preferences for a greater number of

options from which to choose.

5. Study 4a

In Study 4a, we tested our hypothesis that participants would report that it would take fewer options to overwhelm them when making a choice with a maximizing strategy than when making a choice with a satisficing strategy. In other words, we sought to replicate the significant association between individual differences in alternative search and the threshold of an overwhelming number of options found in Study 2.

5.1. Method

5.1.1. Participants

A total of 334 participants were recruited from mTurk for Study 4a, of whom 274 met the inclusion criteria (which were the same as in Study 3) and were included in analyses (118 women and 156 men).

5.1.2. Materials and procedure

Participants were asked to imagine making choices with a maximizing and a satisficing strategy. In the maximizing strategy condition, participants read the following description:

Imagine you are going to make some choices. For each choice, you are going to search extensively through every possible option available to you. Your strategy is going to be to exhaustively compare every one of the options with each other in order to make the best choice possible.

In the satisficing strategy condition, participants instead read:

Imagine you are going to make some choices. For each choice, you are going to search until you find the first option that meets your standards. Your strategy is going to be to look through the options until you find the first one that is good enough, at which point you will stop searching and choose that option, whether or not it is the best choice possible.

After reading about a particular goal, participants indicated how many options would overwhelm them for the same three consumer choices (car, cellphone, and movie) as in the previous study. Each response was given on the same 15-point scale used in Study 2 with labels ranging from 2 options to 30+ options in increments of 2. Participants indicated how many options would be overwhelming to choose from for each item when using each strategy, and strategies were presented in a random order (order did not influence results, $p = .543$).

5.2. Results and discussion

Participants reported that it would take fewer options to overwhelm them when imagining choosing with a maximizing strategy ($M = 6.01$, $SD = 3.29$) than when imagining choosing with a satisficing strategy ($M = 6.25$, $SD = 3.30$), but this difference was only marginally significant, paired $t(273) = -1.65$, $p = .099$, $d_z = -0.07$, 95% CI $[-0.16, 0.01]$. In light of this directionally-consistent but non-significant result, we conducted a direct replication of Study 4a to further test our prediction.

5.3. Study 4b: replication of study 4a

A total of 401 participants were recruited from mTurk for Study 4b, of whom 367 met the inclusion criteria and were included in analyses (199 women, 166 men, 2 who selected neither option). Study 4b was a direct replication of Study 4a, with an identical procedure (with no effect of order of strategy presentation, $p = .859$). Participants reported that it would take fewer options to overwhelm them when choosing with a maximizing strategy ($M = 5.48$, $SD = 2.73$) than when choosing with a satisficing strategy ($M = 5.90$, $SD = 3.27$), paired t $(366) = -2.86$, $p = .004$, $d_z = -0.15$, 95% CI $[-0.25, -0.06]$.

A fixed-effects meta-analysis, conducted using the metafor package (Viechtbauer, 2010) for R (R Core Team, 2017) to combine effects from Studies 4a and 4b revealed a small but significant average effect in line with our hypothesis, $d_z = -0.11$, 95% CI $[-0.18, -0.05]$, $z = -3.34$, $p = .001$. Thus, taken together and consistent with the correlational results of Study 2, Studies 4a and 4b support the hypothesis that participants imagine being more easily overwhelmed when adopting a maximizing strategy than when adopting a satisficing strategy. The relatively small effect size may be a result of a relatively weak manipulation of imaginary choice strategies, and we recommend that future research move beyond hypothetical descriptions of strategies to explore the effects of different choice strategies in actual decision making contexts. For example, future research could prime a maximizing mindset using Ma and Roese's (2014) method, which may better manipulate maximizing goals and strategies. In addition, it is worth noting that stable individual differences in maximizing and experimental manipulations of maximizing may be differentially related to some choice outcomes, such that some relations with individual differences do not emerge as strongly when maximizing is manipulated.

6. General discussion

Across five studies, we found support for the prediction that maximizers have more positive choice experiences *and* more negative choice experiences. Indeed, Studies 1 and 2 showed that individual differences in maximizing positively correlated with *both* more positive and more negative choice experiences and beliefs. Distinguishing between the maximizing goal and the maximizing strategy helped explain this apparently paradoxical pattern—the goal of wanting the best was associated with positive experiences with and beliefs about choice, whereas the strategy of alternative search was associated with negative experiences with and beliefs about choice. Studies 2-4b further suggested that the maximizing goal predicts preferences for larger choice sets, whereas the maximizing strategy predicts a lower threshold for finding choice set sizes overwhelming, further highlighting the contradictions of the two components of maximizing. Taken together, these studies underline the potential usefulness of considering not only the broad construct of maximizing, but also the two specific components of maximizing identified in Cheek and Schwartz's (2016) two-component model.

Beyond the specific puzzle of the maximization paradox, our findings fit within a broader line of recent work that seeks to understand and conceptually reconcile the positive and negative correlates of individual differences in maximizing. For instance, Peng et al. (2018) recently found that maximizing, as measured by the MS, was positively correlated with both regret and hope, an apparently contradictory pattern. One possibility is that hope inspires the maximization goal—people may adopt the goal of choosing the best option because hope gives them the confidence to believe that there is an objective best (see also Luan & Li, 2017). Yet, once the decision process begins, the impossibility of identifying the best, combined with the affective and cognitive costs of alterative search, may reduce hope and increase regret. Similarly, Hughes and Scholer's (2017) finding that the maximization strategy is more strongly related to negative experiences during choice than the maximization goal underlines the value of considering separately the two components proposed by Cheek and Schwartz (2016). As research continues, the two-component model may both generate new predictions about the ups and downs of maximizing and help explain previous findings that appear anomalous or contradictory.

Our results also yield potential insights for both consumers and retailers. For example, in the absence of the maximization strategy of alternative search, simply wanting to make the best possible choice may be less detrimental to both the experience of choosing and well-being more generally. Thus, if consumers with the maximization goal recognize the drawbacks of alternative search, they may be able to improve their satisfaction with choices by adopting a different strategy, such as simply choosing the product with the highest customer ratings. Relatedly, retailers may better satisfy consumers by making it easier to identify—or perhaps making consumers *feel* that they have identified—the best alternative for a given set of preferences. On websites, for example, retailers could select the best product for different preferences (e.g., "the warmest coat," "the most stylish coat," "the most budget-friendly coat"), thus reducing the need to search extensively and potentially overcoming the costs of not being able to know how to find the optimal alternative. More generally, as researchers, retailers, and consumers alike consider how to address the downsides of maximizing, it may be wiser to focus on changing the strategies through which people pursue the best than to try to change the goal of choosing the best, particularly because that goal may even be associated with positive outcomes if paired with a better strategy.

While considering the theoretical and applied implications of our results, it is important to note that preferences for and experiences with choice vary substantially across different cultural contexts (e.g., Markus & Schwartz, 2010; Schwartz & Cheek, 2017), and maximizing also has different implications across cultures (e.g., Oishi, Tsutsui, Eggleston, & Galinha, 2014; Roets, Schwartz, & Guan, 2012). Thus, fully understanding the maximization paradox will require research with diverse samples beyond our current convenience sample of mTurk workers. Indeed, to our knowledge, the maximization paradox has been studied almost exclusively in the North America (e.g., Dar-Nimrod et al., 2009) and China (e.g., Luan & Li, 2017), and thus further cross-cultural work is needed not only to more fully understand the maximization paradox, but also to establish its existence in different sociocultural contexts. Based on the present research, we suggest that such efforts should distinguish between the maximization goal and the maximization strategy, and examine how the opposing correlates of the two components of maximizing can help us better understand maximizers and their paradoxical preferences.

Cross-cultural work may be particularly important with regard to the correlates and consequences of the maximizing goal. In a middle-class American cultural context, choice is viewed positively as a route to autonomy and self-expression, and thus the goal of choosing the best is often culturally appropriate, which may explain some of its relations to positive outcomes (Markus & Schwartz, 2010). In other cultural contexts, however, the goal of making the best choice may be less consistent with cultural values, and thus be related to less positive outcomes. Oishi et al. (2014), for instance, found that, in Japan, where adjusting to others receives greater sociocultural emphasis than making personal choices (e.g., Morling, Kitayama, & Miyamoto, 2002), even the

maximizing goal predicted negative outcomes such as increased depression and decreased happiness. On the other hand, Roets et al. (2012) found that the maximizing strategy was unrelated to well-being in China, where there is little cultural emphasis on choice and personal choice may be more limited. Roets et al. (2012) also found that the maximizing goal was negatively related to well-being in Western Europe, further suggesting that the positive correlates of the maximizing goal might be limited to an American cultural context. Cross-cultural research that examines separately the two components of maximizing can thus add more nuance to our understandings of the maximization paradox specifically and the construct of maximizing more generally.

7. Conclusion

Since the introduction of theories regarding maximizing and satisficing more than a half century ago, research on both interindividual and intraindividual differences in decision goals, strategies, and outcomes has flourished. In the present research, we sought to highlight how theoretical advances in the conceptualization of maximizing as a two-part construct can advance understanding of existing paradoxical findings. This improved theoretical foundation can similarly support future investigations of the pleasures and pains of maximizers and satisficers.

Acknowledgements

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