

“Take it or leave it!” A choice mindset leads to greater persistence and better outcomes in negotiations

Anyi Ma^a, Yu Yang^b, Krishna Savani^{c,*}

^a Department of Management and Organizations, Fuqua School of Business, Duke University, 100 Fuqua Drive, Box 90120, Durham, NC 27708-0120, United States

^b School of Entrepreneurship and Management, ShanghaiTech University, 393 Middle Huaxia Road, Pudong, Shanghai 201210, China

^c Division of Leadership, Management, and Organisation, Nanyang Business School, Nanyang Technological University, 50 Nanyang Ave S3-01C-81, Singapore 639798, Singapore

ARTICLE INFO

Keywords:

Choice mindset
Negotiations
Ultimatum
Persistence

ABSTRACT

Negotiators often elicit concessions from their counterparts by using ultimatums. The present research asks: Why do some negotiators either concede to ultimatums or leave the bargaining table, whereas others simply ignore ultimatums and continue negotiating? Six studies examined the role of a *choice mindset*. Negotiators who recalled their past choices perceived greater negotiation room than negotiators who recalled past no-choice actions (Study 1). Negotiators who thought about their counterpart's choices (rather than constraints) were more willing to persist (Study 2), and this relationship was mediated by greater perceived negotiation room (Studies 3 and 4). A choice mindset also helped negotiators achieve better outcomes (Study 5). Finally, Study 6 compared the relative strengths of thinking about different types of choices (e.g., one's own choices vs. one's counterpart's choices both within and outside the negotiation). The findings identify the choice mindset as a novel intervention to enhance persistence and improve negotiation outcomes.

1. Introduction

Negotiators often use statements such as “That is the best I can do,” “I simply cannot concede anymore,” or “I will make a loss if I give you anything more,” as persuasive tools to convince their counterpart to agree to the terms on the table without making any more concessions (Kolb, 2004; Rubin, Brockner, Eckenrode, Enright, & Johnson-George, 1980). Past research has found that such ultimatums are effective in eliciting significant concessions from one's counterpart (Lee & Ames, 2017). In the current research, we ask, why do some negotiators accept the ultimatum at face value, and thereby either concede to the ultimatum or leave the bargaining table? And why do others simply ignore the ultimatum and continue negotiating, which can ultimately lead to a superior deal that may be more beneficial to both parties? In the present research, we consider one candidate, the *choice mindset*, which might alter negotiators' responses to ultimatums by shaping their subjective perceptions of room to negotiate and their willingness to persist after receiving ultimatums.

People's construal of negotiation can powerfully shape their negotiation behaviors and outcomes. For instance, according to the mental model theory of negotiations, even when the objective features of the negotiation are identical, negotiators vary significantly in their

subjective construals of the negotiation (Van Boven & Thompson, 2003). One theoretically relevant dimension on which people can differ is the extent to which they perceive that they have room to negotiate. We define *perceived negotiation room* as the extent to which negotiators believe that it is possible to negotiate with their counterpart to achieve a more favorable outcome for themselves.

1.1. Role of ultimatums

People's perceived negotiation room is often shaped by the statements and justifications that their counterparts use. Indeed, over 90% of negotiators use statements such as, “This is the best I can do” in negotiations (Lee & Ames, 2017). Known in the literature as ultimatums and near-ultimatums, constraint rationales (Lee & Ames, 2017) or “feigned weakness” (Rubin et al., 1980), past research has found that these rationales can be very effective at eliciting concessions from counterparts because they signal that the ultimatum issuer is at their limit, and therefore there is no further room to negotiate. Indeed, Lee and Ames (2017) found that negotiators who issue constraint ultimatums, similar to those studied in the present research, as opposed to *disparagement rationales* (or statements that undermine the value of the product or services being negotiated, e.g., “It's not worth more”),

* Corresponding author.

E-mail addresses: anyi.ma@duke.edu (A. Ma), yangyu@shanghaitech.edu.cn (Y. Yang), ksavani@ntu.edu.sg (K. Savani).

obtained not only significantly better negotiation outcomes, but are also seen as more trustworthy, cooperative, helpful, considerate, less aggressive, competitive, stubborn, demanding, selfish, and devious.

Given the prevalence and effectiveness of such statements in negotiations, we ask, under what circumstances might negotiators refuse to take ultimatums as ultimatums—neither accept nor reject the ultimatum but instead persist in continuing the discussion to identify a superior deal for themselves? We consider one candidate that might alter peoples' perceived room: the *choice mindset*.

1.2. The choice mindset

In recent decades, researchers have made substantial progress in numerous areas by dissociating the psychological from the structural. For example, whereas sociologists and organizational scholars studied *power* as a structural feature of the world for decades, psychological research showed that power can also be a state of mind divorced from the structural environment (e.g., Keltner, Gruenfeld, & Anderson, 2003). Similarly, whereas economists and consumer psychologists had long studied *money* as a store of value and a means for making transactions, psychological research showed that the salience of money influences people's behavior even while keeping the actual availability of money constant (e.g., Vohs, Mead, & Goode, 2006).

Building on this insight, Savani, Markus, Naidu, Kumar, and Berliani (2010) suggested that *choice* might be a variable in the same category as *power* and *money*, one that exists both as a psychological state and as a fact of the world, and which can influence diverse judgments, decisions, emotions, and cognitions. A choice mindset is a state of mind in which people perceive their own and others' actions through a lens of choice (Savani et al., 2010). Choice lies in the eyes of the beholder, such that even when presented with the same objective options, people differ in whether they construe their actions as choices. For example, people in a choice mindset are more likely to perceive others' mundane actions, such as eating an apple, opening mail, and reading a magazine, as *choices* rather than as mere actions (Savani et al., 2010, Study 3). If choice is a mindset, then it can be experimentally manipulated. For example, asking participants to choose among various options vs. to describe various options (Savani, Stephens, & Markus, 2011), to recall their own past choices vs. actions (Savani & Rattan, 2012), or to indicate all choices vs. all actions that another person made (Savani et al., 2011), all serve to activate a choice mindset.

When the choice mindset is activated, people are more likely to believe in free will (Feldman, Baumeister, & Wong, 2015), thereby thinking that everyone has a choice no matter what situation they are in. For example, compared to those not in a choice mindset, participants in a choice mindset were more likely to blame victims of negative outcomes (e.g., someone who was battered by their spouse; Savani et al., 2011), had less empathy for disadvantaged others (e.g., an impoverished orphan; Savani et al., 2011), and were less disturbed with high levels of income inequality in society (Savani & Rattan, 2012). These findings suggest that the choice mindset causes people to ascribe greater agency to themselves and others.

1.3. Choice mindset and negotiations

Given that the choice mindset changes people's construal of individuals, actions, and outcomes, we reasoned that it might also alter people's perceived negotiation room when they receive ultimatums or constraint rationales. Past research found that a choice mindset leads to largely negative outcomes, such as increased victim blaming and lowered people's concern for wealth inequality (Savani & Rattan, 2012). Therefore, one possibility is that construing individual choice has a general direct negative effect on people's perceptions and judgments of others. That is, having a choice mindset hampers people's ability to empathize and trust others. Another possibility, however, is that a choice mindset alters people's construal of their own and other's

behaviors and circumstances. In other words, it is possible that a choice mindset increased victim blaming because people believed that the victim's choices led to their negative outcomes. Similarly, it is possible that a choice mindset reduced people's concern for wealth inequality because they believed that individuals' wealth is determined by the choices that they made. However, past research on the choice mindset primarily focused on social judgments. In the current research, we ask whether a choice mindset also influences decision making outcomes, and in particular, negotiation behaviors and outcomes?

Therefore, in this research, we explore how perceiving others' behaviors and circumstances as choices influences negotiators' perceived negotiation room and their willingness to persist when they have received ultimatums. According to Lee and Ames (2017), statements such as "I can't give you more" indicate that the negotiation counterpart is at their limit and that there is nothing more that the counterpart can offer. In other words, ultimatums lower the counterpart's perceived negotiation room.

We argue that a choice mindset might buffer the impact of ultimatums on reduced perceived negotiation room. As the choice mindset leads people to perceive that they themselves and others have a number of options (Savani et al., 2010), we predict that having a choice mindset might lead people to believe that their negotiation counterpart has multiple courses of action available, and therefore, discount the credibility of such ultimatums. As the effectiveness of ultimatums depends on how credible the counterpart finds them (Lee & Ames, 2017), we predict that the negative impact of ultimatums on perceived negotiation room would be dampened when the ultimatum recipients are in a choice mindset. In other words, we predict that people would be more likely to believe that their negotiation counterpart has options even when their counterpart claims that they cannot make any more concessions, and this belief would lead them to ignore the ultimatum and persist in the negotiation. Finally, as increased persistence promotes better negotiation outcomes (Bowles & Flynn, 2010), we predicted that a choice mindset would help negotiators achieve better outcomes. Put formally, we predicted that:

Hypothesis 1a. Negotiators in a choice mindset would believe that there is more room to negotiate compared to those in a non-choice mindset.

Hypothesis 1b. Upon receiving ultimatums, negotiators in a choice mindset would be more willing to persist compared to those in a non-choice mindset.

Hypothesis 2. The effect of the choice mindset on greater willingness to persist following ultimatums would be mediated by greater perceived negotiation room.

Hypothesis 3. Negotiators in a choice mindset would achieve better negotiation outcomes than those in the non-choice mindset.

2. Overview

We conducted six studies to examine the effect of the choice mindset on negotiators' cognitions, behaviors, and outcomes. Study 1 investigated whether negotiators who recall their own past choices from their daily lives perceive greater negotiation room than negotiators who recall past no-choice actions (Hypothesis 1a). Study 2 examined whether negotiators who think about their counterpart's choices rather than constraints within the negotiation are more willing to persist in negotiating when they receive ultimatums (Hypothesis 1b). Study 3 examined whether the effect of a choice mindset on willingness to persist in the negotiation was mediated by perceived negotiation room (Hypothesis 2). Study 4 provided an additional test of mediational model using a behavioral measure of persistence in a negotiation (Hypothesis 2). Study 5 tested whether negotiators who were asked to think about their counterpart's choices within the negotiation achieve

better outcomes than those who were asked to think about their counterpart's constraints within the negotiation (Hypothesis 3). Finally, Study 6 examined the generalizability of the effect of choice on perceived negotiation room and willingness to persist (Hypotheses 1a & 1b). To do so, we examined the impact of different types of choices (e.g., negotiators' perceptions of their own choices within and outside the negotiation; their perceptions of their counterpart's choices within and outside the negotiation; and their general perceptions of choices in life) on their perceived negotiation room and willingness to persist.

Across all studies, we report all participants, manipulations, and measures. Data for each study were collected in a single wave. We tried to at least recruit 100 participants per condition for experimental studies, or 180 participants for correlational studies. This sample is derived from an estimated medium effect size (Cohen $d = 0.40$, power = 80%, $\alpha = 0.05$, two-tailed), which is indicative of behavioral science as a whole (Richard, Bond, & Stokes-Zoota, 2003). We used this analysis as a guideline for the minimum number of participants to recruit per study, but often recruited more participants than the minimum to achieve higher statistical power. Further, previous research has shown that people who participate in online studies often click through studies without paying attention, thereby reducing statistical power (Oppenheimer, Meyvis, & Davidenko, 2009). Therefore, for all studies conducted outside the lab, we excluded participants who failed an attention check in which participants were asked to identify the name of the company mentioned in the scenario in a 5-item multiple-choice question. Unless otherwise specified, these exclusion criteria were consistently applied in all studies in which we recruited online samples. All data, analyses and materials are available at: <https://osf.io/7q39m/>.

3. Study 1

The goal of Study 1 was to investigate whether compared to people in a no-choice mindset, those in a choice mindset are more likely to perceive more negotiation room (Hypothesis 1a). To test these hypotheses, we used a hiring scenario and included a measure of perceived negotiation room. This hiring scenario was modeled on the commonly used New Recruit case (Pinkley, Neale, & Bennett, 1994), in which a new employee has to negotiate their starting package with their employer. To manipulate the choice mindset, we used a choice priming manipulation that has been used frequently in past research, in which participants are asked to recall either their choices or their no-choice actions from their past everyday lives (see Savani & King, 2015, Studies 2 and 3; Savani & Rattan, 2012, Study 1; Savani, Stephens, & Markus, 2017, Studies 1 and 3). We will describe this manipulation more fully in the methods section.

3.1. Method

3.1.1. Participants

A survey seeking 800 participants was posted on an online Chinese survey panel. In response, 831 participants completed the study. Of these, 322 participants failed the attention check, leading to a final sample of 509¹ participants (260 men, 246 women, 3 unreported; $M_{age} = 32.45$ years). All materials were initially prepared in English, translated into Mandarin Chinese, and then back-translated into English (Brislin, 1970).

¹ The significance level of the effect of the choice mindset does not change even if we do not exclude any participants. An independent samples t -test found that participants in the choice condition ($M = 4.79$, 95% $CI [4.69, 4.89]$, $SD = 1.06$) perceived significantly more negotiation room than those in the no-choice condition ($M = 4.59$, 95% $CI [4.48, 4.69]$, $SD = 1.09$), $t(828) = -2.68$, $p = 0.008$, Cohen's $d = 0.19$.

3.1.2. Choice priming manipulation

Participants were randomly assigned to either the *choice condition* or the *no-choice condition*. Participants in the choice condition were instructed: "In this part of the survey, we want to learn about what choices you make in different parts of the day (A choice is whenever you had to select one of multiple options). Please think about what choices you made yesterday morning, afternoon, and evening." Participants in the no-choice condition were instructed: "In this part of the survey, we want to learn about what you do without a choice in different parts of the day (A nochoice action is whenever you had to do things regardless of whether you want to do it or not). Please think about what you did without a choice yesterday morning, afternoon, and evening." Participants were then asked to list three choices or no-choice actions that they engaged in the previous morning, afternoon, and evening.

To measure negotiation cognitions, we used a scenario rather than an actual negotiation because in an actual negotiation, a choice mindset can also influence both the negotiators' own behaviors and their counterpart's behaviors, thus making it difficult to disentangle whether it is the negotiators' mindset or the resulting behaviors that influenced their cognitions. We can avoid this confound by using scenarios in which all behaviors are held constant. All participants were asked to assume the role of the new recruit and presented with the following scenario:

"Imagine that you had just undergone several grueling rounds of interviewing and that you are now a new entry level employee at LBP Corp. Because you have been investigating various jobs and interviewing at different companies, you know that you can discuss some aspects of your job and compensation package with the hiring manager. Specifically, you know you can negotiate your benefits package (such as the location of your job, health insurance, and work-related travel) and also your salary. There are 4 issues that you would like to discuss with the company representative:

- (1) Health insurance: The company offers a range of health insurance plans to employees, ranging from cheap plans (restrictive coverage, high copayment) to very good plans (broad coverage, low copayment).
- (2) Number of vacation days: From talking with existing employees, you found out that the company gives new employees vacation allowances ranging from 7 days to 14 days. As your family lives on the other coast, you would really like 14 days.
- (3) Amount of work-related travel: Given the job characteristics, all employees need to travel between 20% and 50% of their time. You'd like to keep work-related travel to a minimum, so would prefer 20%.
- (4) Start date: Ideally, you like to start right away because you are out of a job. However, talking with other employees, you realize that the typical joining date is a couple months later."

3.1.3. Perceived negotiation room

We then presented participants with the following four items to measure their perception of room within the negotiation: (1) "How much room do you think there is for negotiation?", (2) "How much do you think you can negotiate with the recruiter?", (3) "How much space there is for negotiation in this situation?", and (4) "How much room is there for a back and forth between you and the recruiter?" Participants responded to these items on a 7-point scale ranging from *Not at all* to *Extremely*. As the items were highly intercorrelated, $\alpha = 0.85$, we averaged them to form a scale.

3.2. Results

An independent samples t -test found that participants in the choice condition ($M = 4.75$, 95% $CI [4.62, 4.89]$, $SD = 1.10$) perceived significantly more negotiation room than those in the no-choice condition

($M = 4.49$, 95% $CI [4.35, 4.63]$, $SD = 1.12$), $t(507) = -2.66$, $p = 0.008$, Cohen's $d = 0.24$.

3.3. Discussion

Study 1 provided preliminary evidence for Hypothesis 1a, that when people in a choice mindset enter a negotiation, they are more likely to believe that there is room to negotiate, compared to people who are in a no-choice mindset. In particular, participants in this study were asked to recall either their past choices or their past no-choice actions from their everyday lives. This finding indicates that a general choice priming manipulation that is unrelated to the negotiation at hand has the power to shape people's perceived negotiation room.

4. Study 2

Study 2 tested whether compared to those in a constraints mindset, people in a choice mindset would be more willing to persist when they were issued ultimatums (Hypothesis 1b). Further, instead of asking participants to think of their own choices vs. no-choice actions from the previous day, we asked them to think about their negotiation counterpart's choices vs. constraints in the upcoming negotiation. Additionally, to test the generalizability of the effect, instead of asking people to think of their past *no-choice actions*, which involve a negation and thus might be difficult for participants to cognitively process (Swain, Weathers, & Niedrich, 2008), we asked participants to think of *constraints*, a term that indicates a lack of choices but without involving a negation. This manipulation is likely to be more ecologically valid as negotiators might often think about their counterpart's choices and constraints when entering a negotiation.

4.1. Method

4.1.1. Participants

We recruited 317 undergraduate business students (48 men, 246 women, 1 unreported; $M_{age} = 20.62$ years) from a university in Singapore to participate in a lab study. No participants were excluded because participants completed the study in a distraction-free lab environment. All participants were asked to assume the role of the new recruit and presented with the following scenario:

"Imagine that you have just completed a long interview process and are now an entry-level employee at LBP Corp, a large multi-national company. Based on your research and on the information you learned from interviewing at different companies, you know that you can negotiate your salary and your benefits package (such as the location of your job, health insurance, work related travel) with the hiring manager."

4.1.2. Manipulation

After they read the scenario, participants were randomly assigned to either the *choice* or the *constraint* experimental condition. Participants in the choice condition were instructed, "Now think about all the CHOICES that the hiring manager has within this negotiation. For example, the hiring manager can have many CHOICES about the amount of salary that they can give you, or they could have many CHOICES about the location of your job. Please list all the CHOICES that you think the hiring manager has in the boxes below." Those in the constraint condition were instructed, "Now think about all the CONSTRAINTS that the hiring manager has within this negotiation. For example, the hiring manager can face many CONSTRAINTS about the amount of salary that they can give you, or they could face many CONSTRAINTS about the location of your job. Please list all the CONSTRAINTS that you think the hiring manager has in the boxes below." Participants were provided with five blank boxes to enter their responses.

4.1.3. Ultimatum

Thereafter, we presented participants with an exchange between themselves and the employer, which ended with the employer issuing an ultimatum:

"During the negotiation, the hiring manager says, 'Let us start to discuss number of vacation that you can take and the amount of work related traveling that you can do. It'll be ideal if you can take 7 days of vacation and travel about 50% of the time for work.'

You considered the hiring manager's offer for a moment, and said, 'I'm starting a new family here, so I would like to spend more time with my spouse and child, if possible. Therefore, I would like more vacation days and less work related travel. How about 14 vacation days and no work related travelling at all?'

The hiring manager hesitated and thought for some time before saying, 'OK let me cut the chase short and give you the best offer I can give. How about 10 vacation days and 40% work related travel?' You considered the offer for some time, and responded, 'I think you can give me just a few more vacation days and a bit less work related travel. It will make a big difference to me.'

The hiring manager shook his/her head and responded, 'This is really the best I can give you, take it or leave it.'"

4.1.4. Willingness to persist

Thereafter, we administered six items to measure the extent to which participants are willing to persist after being issued the ultimatum (items 4, 5, and 6 are reverse scored): (1) "I would refuse to accept that this is the best the hiring manager can do" (2) "I would continue pushing the hiring manager to give me a better deal", (3) "I would suggest additional options to the hiring manager," (4) "I would accept that this is the best offer that the hiring manager can give me," (5) "It seems like I can't get a better deal than the one offered," and (6) "It looks like the hiring manager can't offer me anything better." Participants were asked to respond to each item on a 7-point scale ranging from *Strongly disagree* to *Strongly agree*. The six items were highly intercorrelated, $\alpha = 0.83$, so items 4 to 6 were reverse-coded, and all items were averaged to form a composite score. Higher scores indicated greater willingness to persist.

4.2. Results

An independent samples t -test found that negotiators who were instructed to think about their counterpart's choices ($M = 4.35$, 95% $CI [4.19, 4.52]$, $SD = 1.06$) were significantly more willing to ignore the ultimatum than negotiators who were instructed to think about their counterpart's constraints ($M = 4.02$, 95% $CI [3.85, 4.20]$, $SD = 1.10$), $t(314) = -2.71$, $p = 0.007$, Cohen's $d = 0.30$.

4.3. Discussion

Consistent with Hypothesis 1b, Study 2 found that compared to negotiators in a constraints mindset (that is, those who thought about all the constraints that their counterpart faced in the negotiation), those in a choice mindset (that is, those who thought about all the choices that their counterpart had) were more willing to persist in a negotiation even after their counterpart issued an ultimatum. Thus, instead of either accepting or rejecting an ultimatum, negotiators in a choice mindset are more likely to ignore the ultimatum and instead continue negotiating. This behavior is adaptive because often times, ultimatums are strong persuasive devices (Lee & Ames, 2017), so ignoring them and continue negotiating would help negotiators identify superior outcomes if such outcomes exist.

5. Study 3

The goal of Study 3 was to tie together the findings of Studies 1 and

2, that is, to test whether people in a choice mindset are more likely to persist in negotiations because they perceive greater negotiation room (Hypothesis 2). Further, we aimed to test whether the findings would generalize from China and Singapore to the United States.

5.1. Method

5.1.1. Participants

A survey seeking 300 United States residents was posted on Amazon Mechanical Turk. In response, 305 participants completed the survey. We excluded 49 participants who did not accurately remember the name of the company described in the negotiation scenario from the analyses. The final sample contained 256 participants (103 men, 152 women, 1 unreported; $M_{age} = 35.38$ years).

5.1.2. Procedure

All participants were presented with the hiring scenario used in Study 2. Thereafter, as in Study 2, they were randomly assigned to either the *choice condition* or the *constraint condition* and asked to list all the choices that their counterpart had in the negotiation or all the constraints that their counterpart faced.

5.1.3. Perceived negotiation room

To measure participants' perception of room within the negotiation, we administered the four items used in Study 1. As the items were highly intercorrelated, $\alpha = 0.93$, we averaged them to form a scale.

5.1.4. Ultimatum

Thereafter, we informed participants that their counterpart gave them an ultimatum:

“After exchanging formalities with the hiring manager, imagine that you are now starting to negotiate with the hiring manager. You tell him that you want at least \$60,000 annual salary and 17 vacation days. He pauses for a moment, tells you that he could offer you \$54,000, 14 vacation days, and that was ‘the best he can do.’”

5.1.5. Willingness to persist

To measure the extent to which participants would ignore the ultimatum, we presented them with four items: (1) “To what extent do you think that the hiring manager really did offer you the best deal that he was able to give?” (reverse-coded), (2) “To what extent do you think there is still some room for negotiation?”, (3) “To what extent will you continue to negotiate with him?”, and (4) “To what extent will you not accept his offer?” Participants responded to these items on a 7-point scale ranging from *Not at all* to *Extremely*. As the items were highly intercorrelated, $\alpha = 0.77$, we averaged them to form a scale.²

5.2. Results

An independent samples *t*-test found participants in the choice condition ($M = 4.06$, 95% *CI* [3.85, 4.27], $SD = 1.22$) perceived significantly more negotiation room than those in the constraint condition ($M = 3.74$, 95% *CI* [3.55, 3.93], $SD = 1.05$), $t(254) = -2.24$,

² Some of the willingness to persist items used in Studies 2 and 3 (e.g., “To what extent do you think there is still some room for negotiation”) can be construed as a measure of perceived negotiation room, the mediator. Because of this, we separated out the willingness to persist measure into a behavioral measure of negotiation persistence (e.g., “To what extent will you continue to negotiate with him?”) and a measure of perceived negotiation room after the negotiator had received an ultimatum (e.g., “To what extent do you think there is still some room for negotiation?”). Across Studies 2 and 3, we did not find that the choice mindset had stronger effects on perceived negotiation room (rather than the behavioral measure of willingness to persist). Please see Supplementary Materials for more details.

$p = 0.026$, Cohen's $d = 0.28$. We further found that participants in the choice condition ($M = 4.12$, 95% *CI* [3.90, 4.33], $SD = 1.24$) were also more willing to ignore the ultimatum and persist in the negotiation than those in the constraint condition, ($M = 3.79$, 95% *CI* [3.59, 3.99], $SD = 1.12$), $t(254) = -2.17$, $p = 0.031$, Cohen's $d = 0.27$.

Next, we tested whether the effect of the choice manipulation on willingness to ignore the ultimatum and persist in the negotiation was mediated by perceived negotiation room. We ran a mediation model using Hayes (2013) PROCESS macro (Model 4), with 5000 biased-corrected bootstrap samples. We entered choice as the independent variable, perceived negotiation room as the mediator, and willingness to persist as the dependent variable. As predicted, perceived negotiation room significantly mediated the effect of the choice vs. constraint manipulation on willingness to persist (see Fig. 1). The 95% bias-corrected confidence interval, $Coeff = 0.10$, $SE = 0.05$, 95% *CI* [0.0135, 0.2037] excluded zero, indicating a significant indirect effect.

5.3. Discussion

Study 3 replicated Study 2's finding that negotiators thinking about their counterpart's choices are more willing to persist in the negotiation after receiving an ultimatum than those thinking about their counterpart's constraints. Using a different manipulation, Study 3 replicated Study 1's finding that negotiators thinking about choices rather than constraints are more likely to perceive that there is greater room to negotiate. Moreover, perceived negotiation room mediated the effect of the choice mindset on willingness to ignore ultimatums (Hypothesis 2). Once again, the simple exercise of thinking about the choices that one's negotiation counterpart have influenced participants' subsequent cognitions and decisions.

6. Study 4

Studies 2 and 3 found that a choice mindset increases negotiators' persistence upon receiving ultimatums. However, both studies measured negotiators' intentions to persist, not their actual behavioral persistence. The goal of Study 4 was to provide an additional test of Hypothesis 2 using a behavioral measure of persistence. Further, whereas the previous studies experimentally manipulated a choice mindset, Study 4 tested whether a measured choice mindset provides convergent findings. We used a multi-round, multi-issue computer simulated negotiation based on a cell-phone negotiation case that has been used successfully in past negotiations research (Brooks & Schweitzer, 2011). We told participants that they will be negotiating with a real person; however, in reality, all participants negotiated with a computer. When they were negotiating, their “partner” issued ultimatums, such as “Take it or leave it, I can't do any better,” or “This is the best I can do.” Given that this was a multi-round negotiation (consisting of a maximum of 6 rounds), the round at which participants conceded to the negotiation partner was our primary dependent variable of interest.³

6.1. Method

6.1.1. Participants

A survey seeking 400 United States residents was posted on Amazon Mechanical Turk. In response, 417 participants completed the survey (246 women, 169 men, 1 non-binary, 1 unreported $M_{age} = 37.07$).

6.1.2. Procedure

Participants were told that we were interested in how negotiations unfold when negotiation parties cannot see each other, and that we will

³ In this study, participants' pay was not related to their negotiated outcome. Participants received a payment of \$3 per hour for completing the study.

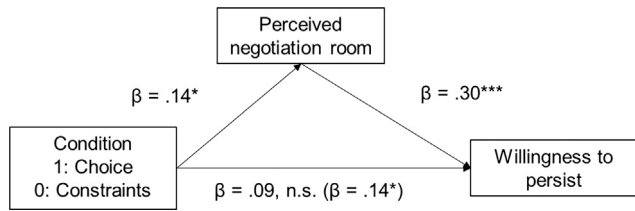


Fig. 1. Effect of a choice mindset on willingness to persist, mediated by perceived negotiation room. Note. β 's represent standardized coefficients. Coefficients in parentheses represent the total effect of choice on willingness to persist. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 1
Negotiation payoff table (Study 4).

Level	Price of phones		Warranty period		Service contract	
	Price	Payoff	Warranty	Payoff	Service	Payoff
1	\$150	\$8.00	1 month	\$2.40	1 month	\$4.80
2	\$145	\$7.00	2 months	\$2.10	2 months	\$4.20
3	\$140	\$6.00	3 months	\$1.80	3 months	\$3.60
4	\$135	\$5.00	4 months	\$1.50	4 months	\$3.00
5	\$130	\$4.00	5 months	\$1.20	5 months	\$2.40
6	\$125	\$3.00	6 months	\$0.90	6 months	\$1.80
7	\$120	\$2.00	7 months	\$0.60	7 months	\$1.20
8	\$115	\$1.00	8 months	\$0.30	8 months	\$0.60
9	\$110	\$0.00	9 months	\$0.00	9 months	\$0.00

allow their negotiation partners to send them messages throughout the negotiation. All participants then proceeded to read background information about a mobile phone consignment sale. There were three issues to negotiate, the price of the mobile phone shipment, the length of the service contract, and the warranty period. All participants were shown a payoff chart taken from Brooks and Schweitzer (2011, p. 46; see Table 1). All participants were assigned to the role of the phone seller, and instructed that their objective in this negotiation was to maximize their payoff.

After reading the negotiation scenario but before making any negotiation offers, participants completed a series of measures.

6.1.3. Perceived choice

Participants first filled out a measure of about how much choice they perceived in the negotiation on three 11-point bipolar items (1 = I have no choice in this negotiation, 11 = I have a lot of choices in this negotiation, 1 = I don't have many options in this negotiation, 11 = I have many options in this negotiation; 1 = In the present negotiation, I will frequently be in situations in which I have no choice; 11 = In the present negotiation, I will rarely be in situations in which I have no choice). The scale was reliable, $\alpha = 0.85$.

6.1.4. Perceived negotiation room

We used the same measure as in Study 3. Participants responded to these items on a 7-point scale ranging from Not at all to Extremely, $\alpha = 0.93$.

6.1.5. Willingness to persist

Participants were then presented with five items adapted from Study 3, to measure the extent to which they would persist when they were issued ultimatums. Participants were told that ultimatums were statements such as, "I can't do any better than this offer," and "This is the best I can do," and then presented with these items: (1) "If the buyer issues an ultimatum, I will refuse to accept that this is the best the buyer can do", (2) "If the buyer issues an ultimatum, I will continue pushing the buyer to give me a better deal", (3) "If the buyer issues an ultimatum, I will accept that this will be the best offer that the buyer can give me"(reverse-coded), (4) "If the buyer issues an ultimatum, I will

Table 2
The computer's cutoffs across different rounds (Study 3).

Round	Computer's cutoff/ counteroffer	Number of participants whose offer was equal or below the cutoff and thus accepted by the computer	Number of participants who proceeded to the next round to make another offer
0	8-7-8	0	389
1	8-7-7	6	383
2	8-6-7	48	335
3	7-6-7	91	244
4	7-6-6	65	179
5	6-6-6	73	106
6	End		

suggest additional options to them," and (5) "If the buyer issues an ultimatum, I will feel like they can't offer me a better deal" (reverse-coded). Participants responded to these items on a 7-point scale ranging from Strongly disagree to Strongly agree. As the items were highly intercorrelated, $\alpha = 0.78$, we averaged them to form a scale.

6.1.6. Negotiation

After participants completed these measures, they commenced the negotiation. When making each offer, participants had to indicate the level that they wanted for each of the three issues. Participants were asked to make the first offer. After each offer, participants saw a screen on which they were asked to wait for a few seconds, and then the computer made a counteroffer (see Table 2 for counteroffer values). Participants were then asked to make a new offer based on the computer's counteroffer. If participants' new offer was below the computer's counteroffer, the computer accepted the offer and the negotiation ended. If participants' offer was above the computer's counteroffer, the computer rejected the offer and made a new counteroffer. Consistent with previous research (Brooks & Schweitzer, 2011), the negotiation automatically ended if participants did not agree to the computer's round 6 offer. However, we did not tell participants that the negotiation will end after round 6 so that they would not feel pressured to accept any offers before then.

6.1.7. Ultimatums

The computer issued participants ultimatums while providing its counteroffer in rounds 1, 3, and 5 of the negotiation. The first ultimatum message was, "If you dont accept this one there's really nothing more I cna do. Next offer is gonan be 7-6-6." The second ultimatum message was, "Wow... what a low first offer. Honestly... I cant do much, but I'm going to make SOME concessions next round... my next offer is 8-7-8. My business partner wont be happy to know that I'm conceding here, but hope you will seriously consider taking it." The third ultimatum message was, "'The next offer (8-6-7) is RAELLY the best I can give ya. Take it or leave it!" To enhance realism, we added typos to the messages and also added brief pauses before each ultimatum message appeared. A longer pause was used before longer messages.

As no participants made an initial offer below the computer's first cutoff, all participants received the first ultimatum. At the end of the negotiation, as an attention check,⁴ we asked participants: "During the negotiation, did the buyer issue ultimatums? Note: ultimatums are statements like "I can do any better than this offer," or "This is the best I can do?" The response options were "Yes," "No," and "Cannot Remember." We excluded 28 participants who did not select "Yes" to this

⁴ This was a different attention check than the one that we used for the other studies. In the other studies, participants were asked to identify the name of the company that was mentioned in the manipulation. This attention check was mistakenly not included in Study 4. However, we did include an attention check assessing whether participants realized that they had received an ultimatum.

Table 3
Descriptive statistics for Study 4.

Variable	M	SD	Correlation with			
			1	2	3	4
Perceived choice	8.41	1.96	(0.85)			
Perceived negotiation room	4.58	1.15	0.46***	(0.93)		
Willingness to persist	4.91	0.95	0.14**	0.21***	(0.78)	
Actual negotiation persistence	4.21	1.45	0.12*	0.12*	0.23***	

Note. Reliabilities are in parentheses. $N = 389$.

- * $p < 0.05$.
- ** $p < .01$.
- *** $p < .001$.

question because they were not paying attention to the ultimatum(s). Thus, the valid sample size (reflected in Table 2) was 389 participants.

6.2. Results

We computed participants' behavioral negotiation persistence by the round at which they made a deal with the fictitious counterpart (range 1–6). Table 2 presents the distribution of persistence across negotiation rounds. Table 3 presents the means, standard deviations, and correlations among the study variables.

As shown in Table 3, the more participants perceived choice, the more negotiation room they perceived, $B = 0.46$, $SE = 0.03$, 95% CI [0.22, 0.32], $t(387) = 10.27$, $p < .001$, the more they were willing to persist, $B = 0.14$, $SE = 0.02$, 95% CI [0.02, 0.12], $t(387) = 2.79$, $p = .006$, and the more their actual negotiation persistence, $B = 0.12$, $SE = 0.04$, 95% CI [0.02, 0.16], $t(387) = 2.38$, $p = .018$.

Next, we tested whether the effect of perceived choice on actual negotiation persistence was mediated by perceived negotiation room and willingness to persist. We ran a serial mediation model using Hayes (2013) PROCESS macro (Model 6), with 5000 biased-corrected bootstrap samples. We entered choice as the independent variable, perceived negotiation room as the first mediator, willingness to persist as the second mediator, and actual persistence as the dependent variable. As predicted, perceived negotiation room and willingness to persist significantly mediated the effect of the perceived choice manipulation on actual persistence (see Fig. 2). That is, the 95% bias-corrected confidence interval of the indirect effect, $Coeff = 0.01$, $SE = 0.006$, 95% CI [0.0034, 0.0253], excluded zero, indicating a significant indirect effect.⁵

6.3. Discussion

Study 4 found that a choice mindset was associated with greater actual negotiation persistence, and that this relationship was mediated by greater perceived negotiation room, and a greater willingness to persist (Hypothesis 2). Study 4 thus replicated the relationships identified in previous studies, and provided a comprehensive test of the links between choice, perceived negotiation room, willingness to persist, and actual persistence.

7. Study 5

The goal of this study was to test whether a choice mindset can not only increase negotiators' persistence but also lead negotiators to achieve better outcomes (Hypothesis 3). We tested this idea in the

⁵ We also tested competing models by switching around the order of the constructs. The following models were tested (and were not significant): (1) Perceived choice → Perceived persistence → Perceived room → Actual persistence. (2) Perceived choice → Perceived room → Perceived persistence → Actual persistence.

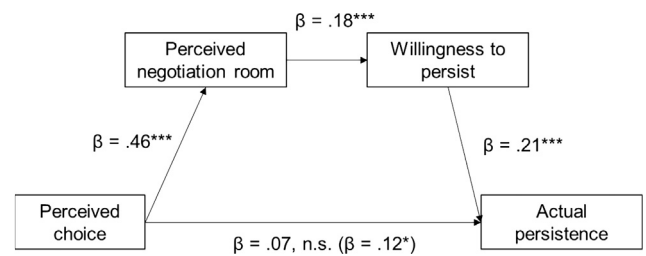


Fig. 2. Effect of perceived choice on actual negotiation persistence, mediated by perceived negotiation room, and willingness to persist. Note. β 's represent standardized coefficients. * $p < .05$, ** $p < .01$, *** $p < .001$.

context of a used car negotiation. We randomly assigned car buyers to either the choice condition or the constraint condition, and examined whether buyers who were assigned to the choice condition bought the car at significantly lower prices than those assigned to the constraint condition. Sellers were not assigned to any condition. We pre-registered the methods and analyses for this study (<https://osf.io/6y29c/>).

7.1. Method

7.1.1. Participants

As indicated in the pre-registration, we decided to recruit as many participants as possible from the lab (subject to resource constraints). Two hundred and six students (85 men, 119 women, 1 other, and 1 unreported; $M_{age} = 21.57$ years) from a large university in Singapore participated in the study. Participants were randomly assigned into 103 dyads. Car buyers were then randomly assigned to the choice condition or the constraint condition.

7.1.2. Procedure

To test our predictions, we used a distributive used car negotiation simulation case that has been used in past negotiation research (e.g., Mason, Lee, Wiley, & Ames, 2013, Study 2). To enhance the vividness of the negotiation, we adapted the negotiation to the local Singapore context (see Supplementary Materials for complete materials). All numbers were specified in Singapore dollars. The buyer was informed that they had \$58,000 to buy the car, and that their best alternative to negotiated agreement (BATNA) was another car that costed \$58,000. They were also explicitly told to not pay more than \$58,000 for the car. Sellers were told that the lowest that they should sell their car is for \$52,000 because they have another offer from the dealership for that amount. Therefore, the zone of possible agreement ranged from \$52,000 to \$58,000.

Given that previous research has suggested that negotiation outcomes are influenced by whether the negotiator makes the first offer and the aggressiveness of the first offer (Galinsky & Mussweiler, 2001), we decided to control for the anchoring effects of first offer by explicitly telling the seller to make the first offer of exactly \$60,000 (this decision was pre-registered). We also instructed the buyer to wait for the seller to make the first offer. Both buyers and sellers were told that they had 20 minutes to negotiate. Finally, to incentivize performance, both sellers and buyers were told that they will receive a bonus based on their performance. We told buyers that they will receive a \$0.50 bonus for every \$1000 of the final sale price that is less than \$58,000 (capped at \$4), and told sellers that they will receive \$0.50 for every \$1000 of the final sale price that is greater than \$52,000 (also capped at \$4).

Buyers were then further randomly assigned to either the choice condition or the constraint condition. In the choice condition, the buyer received an additional page of instructions (along with general information about the negotiation), which contained this information:

Now, please think of the CHOICES that the seller has within this negotiation. For example, the seller may have choices in terms of the

exact price that they can accept for the car, and they may have choices in terms of their ability to offer you extra car accessories.

Buyers were then asked to list three such choices that the seller has within the negotiation. Finally, they were told to continue thinking about the choices that the seller has in the negotiation.

In the constraint condition, buyers' additional sheet contained this information:

Now, please think of the CONSTRAINTS (that is, the limitations or restrictions) that the seller has within this negotiation. For example, the seller may be constrained in terms of the exact price they can accept for the car, and they may be constrained in their ability to offer you extra car accessories.

Buyers were then asked to list three such constraints that the seller has within the negotiation. Finally, they were told to continue thinking about the constraints that the seller has in the negotiation.

Once the negotiation was over, participants were asked to complete a questionnaire in which they reported whether they had reached a deal, and if so, the price of the car that they agreed to. Both the buyer and the seller had to sign this agreement sheet before receiving their bonus.

7.2. Results

All 103 dyads reached a deal. As we had a priori prediction about the directionality of the effects, we pre-registered a one-tailed independent samples *t*-test to examine mean differences in agreement price across the choice and constraint conditions. Supporting Hypothesis 3, we found that buyers who were assigned to the choice condition ($M = \$55260.58$, 95% *CI* [54831.27, 55689.88], $SD = 1542.04$) bought the car at a significantly lower price than buyers who were assigned to the constraint condition, ($M = \$55874.51$, 95% *CI* [55415.35, 56333.66], $SD = 1632.53$), $t(101) = 1.96$, $p = 0.026$ (one-tailed), Cohen's $d = 0.39$. These findings indicate that negotiators in the choice condition performed significantly better than those assigned to the constraint condition.

7.3. Discussion

Study 5 provided evidence for the beneficial effects of a choice mindset on actual negotiation performance (Hypothesis 3). Specifically, buyers who thought about the seller's choices within the negotiation earned better outcomes for themselves than buyers who were told to think about the seller's constraints.

8. Study 6

Study 6 had three major goals. First, the studies thus far have operationalized the choice mindset in terms of participants' perceptions of their own choices in their everyday lives (Study 1), own choices within the negotiation (Study 4), and their counterpart's choices within the negotiation (e.g., Study 5). This raises the question: Is thinking about certain types of choices more effective than others? We sought to investigate this question in this present study. Specifically, we examined the relative effects of perceptions of (1) one's perceptions of own choices in life; (2) perceptions of one's own choices within the negotiation, and (3) perceptions of one's counterpart's choices within the negotiation on participants' perceived negotiation room and willingness to persist. The findings from our studies so far suggest that all these types of choice perceptions should positively relate to perceived negotiation room and willingness to persist.

A related goal was to investigate the effects of perception of choices outside the negotiation. Although our theoretical arguments and experimental manipulations primarily referenced participants'

perceptions of choices within the negotiation, in the current study, we also investigate the relative effects of participants' (4) perceptions of their own choices outside the negotiation, and (5) perceptions of their counterpart's choices outside the negotiation. Perceptions of one's choices outside the negotiation are conceptually similar to people's perceptions of their alternatives to the present negotiation (or BATNA). Given past research showing that negotiators with better BATNAs perform better (Kim & Fragale, 2005; Pinkley et al., 1994), we predicted that perceiving that one has many choices outside the negotiation will also be associated with greater perceived negotiation room and willingness to persist. Conversely, perceiving that one's counterpart has many alternatives outside the negotiation is likely to be negatively associated with perceived negotiation room and willingness to persist.

Finally, we consider whether the effects of choice on negotiation perceptions are driven by perceived control and power. Although these constructs are distinct, choice has been conceptually linked to control and power (see Inesi, Botti, Dubois, Rucker, & Galinsky, 2011; Savani et al., 2017, Experiment 2). Thus, it is possible that choice does not have a unique effect on perceived negotiation room and willingness to persist, but instead, the effects of choice run through power and control. To address this possibility, we also measured perceived control and power in this study. We pre-registered the methods and analyses for this study (<https://osf.io/2tnb3/>).

8.1. Method

8.1.1. Participants

A survey seeking 400 United States residents was posted on Amazon Mechanical Turk. In response, 495 participants completed the survey. Consistent with our pre-registration, we excluded 57 participants who had duplicate IP addresses and geo-locations because these were likely to be bots (Dennis, Goodson, & Pearson, 2018). The final sample included 438 Mechanical Turk workers (239 women, 127 men, 2 other, 70 unreported; $M_{age} = 37.49$ years).

8.1.2. Life choice perceptions

First, all participants completed a 4-item measure of their perceptions of choices in life: (1) "I have a great deal of choice over the events that happen in my life," (2) "Everything that has happened in my life so far occurred as a result of my own choices," (3) "Events in my life occur because of the choices I make," and (4) "I have a great deal of options in my life" ($\alpha = 0.83$).

Thereafter, participants were presented with the job recruitment scenario used in Study 3, after which they were asked to complete the following four measures in random order:

8.1.3. Perceptions of own choices within the negotiation

We measured this construct using three items: (1) "I have many choices within this negotiation (e.g., the type of insurance plan or the exact salary I can request for)," (2) "I have many options within this negotiation," and (3) "There are many different choices I can have within this negotiation" ($\alpha = 0.95$).

8.1.4. Perceptions of own choices outside the negotiation

We measured this construct using three items: (1) "I have many choices outside this negotiation (e.g., take up other job offers or walk away from present job offer)," (2) "I have many options outside of this negotiation," and (3) "I have many alternatives outside of this negotiation" ($\alpha = 0.96$).

8.1.5. Perceptions of counterpart's choices within the negotiation

We measured this construct using three items: (1) "The hiring manager has many choices within this negotiation (e.g., the type of insurance plan or the exact salary they can offer me)," (2) "The hiring manager has many options within this negotiation," and (3) "There are many different choices the hiring manager has within this negotiation"

($\alpha = 0.94$).

8.1.6. Perceptions of counterpart's choices outside the negotiation

We measured this construct using three items, (1) "The hiring manager has many choices outside this negotiation (e.g., close the job opening or hire another candidate)," (2) "The hiring manager has many options outside of this negotiation," and (3) "The hiring manager has many alternatives outside of this negotiation" ($\alpha = 0.94$).

8.1.7. Perceived negotiation room

Next, to measure participants' perception of room within the negotiation, we administered the four items used in Study 4 ($\alpha = 0.85$).

8.1.8. Willingness to persist

Thereafter, participants viewed the ultimatum used in Study 3, and indicated their willingness to persist using the following measure: (1) "I will refuse to accept that this is the best the hiring manager can do," (2) "I will continue pushing the hiring manager to give me a better deal," (3) "I will not accept that this will be the best offer that the hiring manager can give me," (4) "I will suggest additional options to the hiring manager," (5) "I will ask the hiring manager to offer me a better deal," and (6) "I will try to persist to negotiate for as much as possible with the hiring manager" ($\alpha = 0.94$).

Finally, all participants complete the following scales:

8.1.9. Perceived control

We measured this construct using four items (Ma & Kay, 2017, Study 1), (1) "I will have control over this negotiation," (2) "I will be able to do just about anything I set my mind to in this negotiation," (3) "What happens to me in this negotiation mostly depends on me," and (4) "I will be able to negotiate how I wish in this negotiation" ($\alpha = 0.85$).

8.1.10. Perceived power

We measured this construct using eight items (Anderson, John, & Keltner, 2012): (1) "I can get the hiring manager to listen to what I say," (2) "My wishes will not carry much weight (reverse-scored)," (3) "I can get the hiring manager to do what I want," (4) "Even if I voice them, my views will have little sway (reverse-scored)," (5) "I think I will have a great deal of power," (6) "My ideas and opinions will often be ignored (reverse-scored)," (7) "Even when I try, I will not be able to get my way (reverse-scored)," and (8) "If I want to, I will get to make the decisions in this negotiation" ($\alpha = 0.86$).

8.1.11. Attention check

After participants have filled in all relevant survey questions, we measured the same attention check question used in Study 3. As we overlooked adding the attention check as an exclusion criterion in the pre-registration, we do not use this exclusion in the analyses reported below. However, we report results (which are substantively similar to those that we report here) using this exclusion in the [Supplementary Materials](#).

8.2. Results

Table 4 presents the means, standard deviations, and correlations among variables.

As shown in Table 4, participants' perceived negotiation room were positively correlated with their perceptions of general life choices, $r = 0.16$, 95% CI [0.07, 0.28], $p = .001$, perceptions of one's own choices within the negotiation, $r = 0.37$, 95% CI [0.29, 0.47], $p < .001$, one's own choices outside the negotiation, $r = 0.21$, 95% CI [0.11, 0.28], $p < .001$, and their counterpart's choices within the negotiation, $r = 0.25$, 95% CI [0.18, 0.37] $p < .001$. Participants' perceptions of their counterpart's choices outside the negotiation, $r = 0.06$, 95% CI [-0.03, 0.16], $p = .19$, were not significantly associated with

their perceived negotiation room.

Further, participants' negotiation persistence was positively correlated with their perceptions of general life choices, $r = 0.10$, 95% CI [0.007, 0.26], $p = .039$, perceptions of one's own choices within the negotiation, $r = 0.31$, 95% CI [0.27, 0.49], $p < .001$, one's own choices outside the negotiation, $r = 0.22$, 95% CI [0.15, 0.35], $p < .001$, and their counterpart's choices within the negotiation, $r = 0.15$, 95% CI [0.07, 0.31], $p = .002$. Participants' perceptions of their counterpart's choices outside the negotiation, $r = 0.04$, 95% CI [-0.06, 0.17], $p = .348$, were not significantly associated with their willingness to persist.

Next, we tested whether perceived power and control mediate the relationship between the various choice measures and perceived negotiation room. To do so, we ran first and second stage serial mediation model using Stata 15, with 5000 biased-corrected bootstrap samples. We entered one of the five choice measures as the independent variable, perceived control and power as parallel first stage mediators, perceived negotiation room as the second state mediator, and willingness to persist as the dependent variable. We computed the indirect effects via perceived control and power by multiplying the unstandardized coefficients of the relevant pathways. We conducted five separate models, each with one of the five choice measures as the independent variable. Due to the volume of analyses, we summarize the indirect effects via control and power. For details regarding the mediational models, please refer to the [Supplementary Materials](#).

Table 5 presents the results of the five serial and parallel mediation models. For perceived life choices, perceived own choices within negotiation, perceived own choices outside negotiation, and perceived other's choices within negotiation, perceived control (but not perceived power) explained a significant portion of the variance in the effect of perceptions of choice on perceived negotiation room and willingness to persist. However, for perceived own choices within the negotiation, perceived own choices outside the negotiation, and perceived other's choices within the negotiation, the effect of perceptions of choice on perceived negotiation room and willingness to persist was significant even after controlling for both perceived control and perceived power, indicating that choice has a unique effect even after accounting for any effects carried by control and power.

8.3. Discussion

Study 6 found that negotiators' perceptions of own life choices, their own choices within the negotiation, their counterpart's choices within the negotiation, and their own choices outside the negotiation were all associated with greater perceived negotiation room and greater willingness to persist. Thus, Study 6 conceptually replicated the relationships identified in previous studies and documented the generality of the effect of choice on perceived negotiation room and willingness to persist. The only choice perception that was not significantly associated with the dependent measures was participants' perceptions of their counterpart's choices outside the negotiation. This is not surprising because logically, the more negotiators believe that their counterpart has choices outside the negotiation, the better they think their counterpart's BATNA is, which would help their counterpart (not themselves) obtain a better outcome.

Further, Study 6 also found that perceived control (but not perceived power) partially mediated the relation between perceptions of life choices, perceptions of own choices inside/outside the negotiation, and perceptions of counterpart's choices inside the negotiation on perceived negotiation room and willingness to persist. However, even after taking into account the effects of perceived control and perceived power, the direct effect of perceptions of own choices inside/outside the negotiation, and perceptions of counterpart's choices inside the negotiation, were still significant, suggesting that the choice mindset had a unique effect on negotiation perceptions and outcomes.

Table 4
Descriptive statistics for Study 6.

Variable	M	SD	Correlation with									
			1	2	3	4	5	6	7	8	9	
1. Perceived negotiation room	4.90	1.22	(0.85)									
2. Willingness to persist	4.49	1.46	0.21***	(0.94)								
3. Life choices	4.94	1.07	0.16**	0.10*	(0.83)							
4. Own choices within negotiation	5.18	1.20	0.37***	0.31***	0.18***	(0.95)						
5. Own choices outside negotiations	5.08	1.32	0.21***	0.22***	0.30***	0.31***	(0.96)					
6. Other's choices within negotiation	5.25	1.13	0.25***	0.15**	0.13**	0.44***	0.14**	(0.94)				
7. Other's choices outside negotiation	5.36	1.18	0.06	0.05	0.11*	0.13**	0.20***	0.38***	(0.94)			
8. Perceived control	4.17	1.21	0.32***	0.51***	0.30***	0.36***	0.33***	0.13**	−0.06	(0.85)		
9. Perceived power	4.16	0.94	0.28***	0.46***	0.21***	0.31***	0.34***	0.11*	−0.01	0.70***	(0.86)	

Note. Reliabilities are in parentheses. *N* = 438.

* *p* < 0.05.

** *p* < .01.

*** *p* < .001.

9. General discussion

Six studies investigated the link between a choice mindset and negotiation cognitions, behaviors, and outcomes. Study 1 found that negotiators who recalled their past choices perceived greater negotiation room than negotiators who recalled past no-choice actions. Study 2 found that negotiators who thought about the choices that their counterpart had in the negotiation were more persistent and were more willing to continue negotiating than negotiators who thought about the constraints that their counterpart faced in the negotiation. Study 3 found that the effect of a choice mindset on willingness to persist was mediated by perceived negotiation room. Study 4 offered a comprehensive test between perceived choice, perceived negotiation room, willingness to persist, and actual negotiation persistence. Study 5 found that buyers who were asked to think about the seller's choices performed better than those who were asked to think about the seller's constraints.

Finally, Study 6 found that people's perceptions of their choices in life, their own choices within negotiations, their perceptions of choices outside negotiations, and their perceptions of their counterpart's choices within negotiation were all significantly positively associated with greater perceived negotiation room and willingness to persist. Study 6 also found that the effect of choice on perceived negotiation room and willingness to persist do not appear to be fully driven by control and power. In sum, we found the beneficial effects of choice mindset on negotiation behaviors using diverse measures and manipulations (e.g., recalling one's own choices, thinking about the counterpart's choices) and diverse samples (i.e., US American and mainland Chinese adults, Singaporean undergraduates).

9.1. Theoretical implications

The current research contributes to the negotiation literature in multiple ways. First, although past research has examined how cognitions (e.g., Galinsky & Mussweiler, 2001; Neale & Bazerman, 1983) and emotions (e.g., Adam, Shirako, & Maddux, 2010; Lelieveld, Van Dijk, Van Beest, & Van Kleef, 2012) influence negotiation behaviors and outcomes, limited research has examined how the mindsets that negotiators bring with them influence negotiation behaviors (see Kray & Haselhuhn, 2007, for an exception). The present research contributes to the negotiation literature by showing that the choice mindset powerfully influences how negotiators perceive the negotiation and their subsequent negotiation behaviors. Moreover, to our knowledge, the current research is the first to show that a general mindset unrelated to negotiations can influence negotiation behavior. The findings suggest that negotiations are significantly influenced by people's construals and their mindsets.

Second, most research concerning choices in negotiation focuses on the objective options that negotiators have within the negotiation (i.e., which negotiation issues one chooses to negotiate, Naquin, 2003) as well as outside the negotiation (i.e., *Best Alternative to Negotiation Agreement* or *BATNA*, Fisher, Ury, & Patton, 2011; Pinkley et al., 1994). Drawing on research on the choice mindset, which argues that people's construals of choice are as important as the actual availability of choices (Savani et al., 2010), the present research shows that perceptions of choice can influence negotiators' cognitions and behaviors while keeping the objective availability of options constant. Thus, having a good BATNA by itself might be insufficient if people do not perceive the BATNA through a choice mindset. And even with a bad BATNA, negotiators' choice mindset can motivate them to identify the best possible outcome within the available options.

Our research also contributes to the literature on choice. Economists

Table 5
Indirect effects of perceived control and power.

Choice variable	Indirect effect via control	Indirect effect via power	Direct effect of choice
Perceived life choices	<i>Coeff</i> = 0.02, <i>SE</i> = 0.01, 95% <i>CI</i> [0.004, 0.04]	<i>Coeff</i> = 0.006, <i>SE</i> = 0.006, 95% <i>CI</i> [−0.0008, 0.02]	<i>B</i> = 0.07, <i>SE</i> = 0.05, <i>z</i> = 1.45, <i>p</i> = .146
Perceived own choices within negotiation	<i>Coeff</i> = 0.007, <i>SE</i> = 0.006, 95% <i>CI</i> [0.0001, 0.03]	<i>Coeff</i> = 0.003, <i>SE</i> = 0.004, 95% <i>CI</i> [−0.0009, 0.02]	<i>B</i> = 0.27, <i>SE</i> = 0.05, <i>z</i> = 5.81, <i>p</i> < .001
Perceived own choices outside negotiation	<i>Coeff</i> = 0.01, <i>SE</i> = 0.008, 95% <i>CI</i> [0.003, 0.03]	<i>Coeff</i> = 0.006, <i>SE</i> = 0.006, 95% <i>CI</i> [−0.002, 0.02]	<i>B</i> = 0.19, <i>SE</i> = 0.05, <i>z</i> = 4.14, <i>p</i> < .001
Perceived other's choices within negotiation	<i>Coeff</i> = 0.006, <i>SE</i> = 0.005, 95% <i>CI</i> [0.001, 0.02]	<i>Coeff</i> = 0.003, <i>SE</i> = 0.003, 95% <i>CI</i> [−0.0003, 0.012]	<i>B</i> = 0.10, <i>SE</i> = 0.05, <i>z</i> = 2.15, <i>p</i> = .032
Perceived other's choices outside negotiation	<i>Coeff</i> = −0.004, <i>SE</i> = 0.004, 95% <i>CI</i> [−0.01, 0.002]	<i>Coeff</i> = −0.0003, <i>SE</i> = 0.002, 95% <i>CI</i> [−0.006, 0.002]	<i>B</i> = 0.03, <i>SE</i> = 0.05, <i>z</i> = 0.69, <i>p</i> = .493

N = 438.

and judgment and decision-making researchers have long investigated how people make choices (Bettman, Luce, & Payne, 1998), and psychologists have investigated how the availability of choices motivates people (Patall, Cooper, & Robinson, 2008). However, limited research has examined choice as a mindset. Our work contributes to the growing literature on choice mindset by showing that the choice mindset has consequences on judgment and decision making beyond the policy-related outcomes examined in past research (Savani & Rattan, 2012; Savani et al., 2011). However, similar mechanisms appear to be at play for both social judgment and negotiation outcomes. In social judgments, when people perceive that others have more choices, they are more willing to blame others and to hold others personally responsible for their outcomes. In negotiations, when people perceive that others have more choices, they are less willing to accept persuasive claims about lack of choices.

Our work has strong managerial implications as well by showing that the choice mindset increases negotiators' persistence and performance. Negotiators who wish to improve their negotiation performance may want to think about their own choices as well as their counterpart's choices before going to the bargaining table and during the negotiation. Organizations can also improve business performance by systematically promoting a choice mindset among its negotiators. For instance, in pre-negotiation preparation sessions, organizations can emphasize that negotiators should constantly think about their counterpart's choices. In the notes that negotiators bring to the negotiation, organizations can add a sheet instructing negotiators to focus on their counterpart's choices (as in our Study 5). More generally, using targeted messaging in bulletin boards, emails, and meetings, organizations can promote a generic choice mindset among their employees by asking employees to think about all the choices they have in their jobs and in their personal lives.

9.2. Limitations and future directions

The current studies provided convergent correlational and experimental support for the beneficial effects of a choice mindset in negotiations. However, they did not investigate the naturally occurring factors that might put people in a choice versus a constraints mindset. For example, although we have found that the effect of a choice mindset on negotiation perceptions and outcomes generalize across cultures, it is possible that differences in cultural emphases on independence or interdependence might influence the degree to which a choice mindset is chronically salient in negotiations. For instance, past research has shown that US Americans were more likely than Indians to construe actions as choices (Savani et al., 2010). Therefore, it is possible that even though the choice mindset leads to positive negotiation outcomes in both independent and interdependent cultures, negotiators from independent cultures that emphasize concepts like choice, freedom and agency may more frequently enter negotiations with a choice mindset. However, if a choice mindset is less chronically accessible in Asian cultures, then Asians might be particularly likely to benefit from experimental inductions of the choice mindset. Subsequent cross-cultural research can examine these possibilities.

One potential future research direction might be to examine the impact of a choice mindset on the fixed pie fallacy. The fixed pie fallacy is the false belief that the negotiation is a win-lose rather than a win-win proposition, and these perceptions may result in suboptimal deals (Bazerman, Curhan, Moore, & Valley, 2000). Given that the choice mindset changes people's construal of individuals, actions, and outcomes, it might also alter people's general tendency to construe the negotiation as a win-lose rather than a win-win situation.

Future research may also consider whether certain objective features of the negotiation might prompt people's construal of choice and constraints within negotiations. One objective feature of the negotiation that may trigger a choice mindset could be the number of options within an issue. For instance, a negotiation issue that has many options

(e.g., a continuous measure of salary vs. the binary option of working in San Francisco as opposed to New York) might naturally trigger the choice mindset. In terms of salary, if the recruiter is not able to offer an employee \$55,000, the employee might then ask for \$54,500, but if the recruiter is not able to give an employee the option of working in San Francisco then the employee might then have to accept working in New York. Second, the extent to which the negotiation counterpart makes a range (as opposed to a point) offer might also activate a choice (vs. constraint) mindset, as range offers signal flexibility (Ames & Mason, 2015). When counterparts make a range offer, negotiators might then think that there is a range of possible offers and outcomes that the counterpart might accept, and that could spontaneously trigger the choice mindset.

Future research can consider the effects of a choice mindset on more complex negotiations, such as those involving agents. One possibility is that negotiators might assume that agents have limited decision making power, which might spontaneously induce a *constraint mindset*, and in turn, cause negotiators to perceive less negotiation room and make them less willing to persist within negotiation. Another possibility is that the beneficial effect of a choice mindset on negotiation cognitions and outcomes might be attenuated when people negotiate with agents. For example, past research found that people made less generous offers to agents who gave ultimatums because they thought these ultimatums were less legitimate or credible (Rubin et al., 1980). Thus, it is possible that if negotiators are in any case going to ignore ultimatums made by agents, the effect of choice mindset on helping people persist in negotiations may be weakened. Future research should examine these possibilities.

Although the current research provided convergent findings using a series of online and lab experiments, it is unclear whether the choice mindset can be powerful enough to implement in field settings. Specifically, we used two manipulations of a choice mindset, a priming manipulation (i.e., asking negotiators to recall their past choices) and an instructional manipulation (i.e., asking negotiators to think about their counterpart's choices). The priming manipulation would probably be difficult to implement in the field as negotiators might find it odd to think about their past choices, but the instructional manipulation might be more feasible to implement. Specifically, the administrative staff preparing the negotiation briefing can add the instruction at the very top of the page, or negotiators can add the instruction themselves when preparing their notes. Future research can assess whether the effects of the choice mindset would generalize from the lab to the field.

9.3. Conclusion

The present research demonstrates the effects of choice mindset on negotiation cognitions, behaviors and outcomes. We offer a fresh perspective on how perceptions of choice within the negotiation may influence important negotiation behaviors and outcomes. We argued that because the choice mindset leads people to ascribe greater agency to actors, it would lead people to perceive greater room to negotiate, and that in turn leads to greater negotiation persistence. Taken together, our findings demonstrate that adopting a choice mindset might be particularly beneficial when dealing with tough negotiation situations.

Acknowledgement

This research was supported by a Nanyang Assistant Professorship grant awarded by Nanyang Technological University to Krishna Savani, and a Faculty Research Grant awarded by ShanghaiTech University to Yu Yang. We thank Dayana Bulchand, Jianlue Ding, Yu Ding, Ee Hwee Lau, Velvetina Lim, Li Shi Tan, and Chao Wang for their invaluable assistance with conducting this research.

Appendix A. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.obhdp.2019.05.003>.

References

- Adam, H., Shirako, A., & Maddux, W. W. (2010). Cultural variance in the interpersonal effects of anger in negotiations. *Psychological Science*, *21*, 882–889.
- Ames, D. R., & Mason, M. F. (2015). Tandem anchoring: Informational and politeness effects of range offers in social exchange. *Journal of Personality and Social Psychology*, *108*, 254–274.
- Anderson, C., John, O. P., & Keltner, D. (2012). The personal sense of power. *Journal of Personality*, *80*, 313–344.
- Bazerman, M. H., Curhan, J. R., Moore, D. A., & Valley, K. L. (2000). Negotiation. *Annual Review of Psychology*, *51*, 279–314.
- Bettman, J. R., Luce, M. F., & Payne, J. W. (1998). Constructive consumer choice processes. *Journal of Consumer Research*, *25*, 187–217.
- Bowles, H. R., & Flynn, F. (2010). Gender and persistence in negotiation: A dyadic perspective. *Academy of Management Journal*, *53*, 769–787.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, *1*, 185–216.
- Brooks, A. W., & Schweitzer, M. E. (2011). Can Nervous Nelly negotiate? How anxiety causes negotiators to make low first offers, exit early, and earn less profit. *Organizational Behavior and Human Decision Processes*, *115*, 43–54.
- Feldman, G., Baumeister, R. F., & Wong, K. F. E. (2014). Free will is about choosing: The link between choice and the belief in free will. *Journal of Experimental Social Psychology*, *55*, 239–245.
- Fisher, R., Ury, W. L., & Patton, B. (2011). *Getting to yes: Negotiating agreement without giving in*. Penguin Books.
- Galinsky, A. D., & Mussweiler, T. (2001). First offers as anchors: The role of perspective-taking and negotiator focus. *Journal of Personality and Social Psychology*, *81*, 657–669.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: The Guilford Press.
- Inesi, M. E., Botti, S., Dubois, D., Rucker, D. D., & Galinsky, A. D. (2011). Power and choice: Their dynamic interplay in quenching the thirst for personal control. *Psychological Science*, *22*, 1042–1048.
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, *110*, 265–284.
- Kim, P. H., & Fragale, A. R. (2005). Choosing the path to bargaining power: An empirical comparison of BATNAs and contributions in negotiation. *Journal of Applied Psychology*, *90*, 373–381.
- Kolb, D. M. (2004). Staying in the game or changing it: An analysis of moves and turns in negotiation. *Negotiation Journal*, *20*, 253–268.
- Kray, L. J., & Haselhuhn, M. P. (2007). Implicit negotiation beliefs and performance: Experimental and longitudinal evidence. *Journal of Personality and Social Psychology*, *93*, 49–64.
- Lee, A. J., & Ames, D. R. (2017). “I can’t pay more” versus “It’s not worth more”: Divergent effects of constraint and disparagement rationales in negotiations. *Organizational Behavior and Human Decision Processes*, *141*, 16–28.
- Lelieveld, G. J., Van Dijk, E., Van Beest, I., & Van Kleef, G. A. (2012). Why anger and disappointment affect other’s bargaining behavior differently: The moderating role of power and the mediating role of reciprocal and complementary emotions. *Personality and Social Psychology Bulletin*, *38*, 1209–1221.
- Ma, A., & Kay, A. C. (2017). Compensatory control and ambiguity intolerance. *Organizational Behavior and Human Decision Processes*, *140*, 46–61.
- Mason, M. F., Lee, A. J., Wiley, E. A., & Ames, D. R. (2013). Precise offers are potent anchors: Conciliatory counteroffers and attributions of knowledge in negotiations. *Journal of Experimental Social Psychology*, *49*, 759–763.
- Naquin, C. E. (2003). The agony of opportunity in negotiation: Number of negotiable issues, counterfactual thinking, and feelings of satisfaction. *Organizational Behavior and Human Decision Processes*, *91*, 97–107.
- Neale, M. A., & Bazerman, M. H. (1983). The role of perspective-taking ability in negotiating under different forms of arbitration. *Industrial & Labor Relations Review*, *36*, 378–388.
- Oppenheimer, D. M., Meyvis, T., & Davidenko, N. (2009). Instructional manipulation checks: Detecting satisficing to increase statistical power. *Journal of Experimental Social Psychology*, *45*, 867–872.
- Patall, E. A., Cooper, H., & Robinson, J. C. (2008). The effects of choice on intrinsic motivation and related outcomes: A meta-analysis of research findings. *Psychological Bulletin*, *134*, 270–300.
- Pinkley, R. L., Neale, M. A., & Bennett, R. J. (1994). The impact of alternatives to settlement in dyadic negotiation. *Organizational Behavior and Human Decision Processes*, *57*, 97–116.
- Richard, F. D., Bond, C. F., Jr, & Stokes-Zoota, J. J. (2003). One hundred years of social psychology quantitatively described. *Review of General Psychology*, *7*, 331–363.
- Rubin, J. Z., Brockner, J., Eckenrode, J., Enright, M. A., & Johnson-George, C. (1980). Weakness as strength: Test of a “my hands are tied” ploy in bargaining. *Personality and Social Psychology Bulletin*, *6*, 216–221.
- Savani, K., & King, D. (2015). Perceiving outcomes as determined by external forces: The role of event construal in attenuating the outcome bias. *Organizational Behavior and Human Decision Processes*, *130*, 136–146.
- Savani, K., Markus, H. R., Naidu, N. V. R., Kumar, S., & Berlia, N. (2010). What counts as a choice? US Americans are more likely than Indians to construe actions as choices. *Psychological Science*, *21*, 391–398.
- Savani, K., Stephens, N. M., & Markus, H. R. (2011). The unanticipated interpersonal and societal consequences of choice victim blaming and reduced support for the public good. *Psychological Science*, *22*, 795–802.
- Savani, K., Stephens, N. M., & Markus, H. R. (2017). Choice as an engine of analytic thought. *Journal of Experimental Psychology: General*, *146*, 1234–1246.
- Savani, K., & Rattan, A. (2012). A choice mind-set increases the acceptance and maintenance of wealth inequality. *Psychological Science*, *23*, 796–804.
- Swain, S. D., Weathers, D., & Niedrich, R. W. (2008). Assessing three sources of misresponse to reversed Likert items. *Journal of Marketing Research*, *45*, 116–131.
- Van Boven, L., & Thompson, L. (2003). A look into the mind of the negotiator: Mental models in negotiation. *Group Processes & Intergroup Relations*, *6*, 387–404.
- Vohs, K. D., Mead, N. L., & Goode, M. R. (2006). The psychological consequences of money. *Science*, *314*, 1154–1156.