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The Effect of Inclusion versus Exclusion on Consideration Set Size: The Moderating Role of Chronic Indecisiveness*

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A great deal of research has explored individuals' attempts to simplify choices by constructing a consideration set. This research aims to investigate which construction strategy, either inclusion or exclusion, is more likely to be adopted and how the adoption of a particular construction strategy can affect consideration set size while identifying the moderating role of chronic indecisiveness in the construction process. The findings of Study 1 indicate that individuals are more likely to adopt an inclusion strategy to reduce a consideration set to a more manageable size, and that an exclusion strategy results in a larger consideration set. In Study 2, the findings reveal that high-indecisiveness individuals are less likely than low-indecisiveness individuals to select an inclusion strategy, but that high-indecisiveness individuals adopting an inclusion strategy are able to reduce the number of alternatives in a consideration set to a manageable size on par with the size of a consideration set formed by low-indecisiveness individuals without elevating the level of perceived difficulty. The current research contributes to the stream of research on consideration set construction and indecisiveness, and offers useful practical implications for overcoming indecisiveness. Limitations and avenues for further research are also discussed.

Key words: Indecisiveness, Inclusion, Exclusion, Consideration Set, Construction Strategy

When confronted with several competing alternatives, individuals often reduce the number of alternatives to a more manageable size in two distinct ways to simplify their choice process. One is an inclusion strategy by which individuals choose or select attractive alternatives

* This research is based on the first author's dissertation for her master's degree under the supervision of the second author.

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from the initial set; the other is an exclusion strategy by which individuals reject or eliminate unattractive alternatives from the initial set (Shafir 1993). A substantial body of research has shown that the construction strategy of inclusion versus exclusion leads to asymmetric consequences for the size of a consideration set (Huber, Neale, and Northcraft 1987; Levin et al. 2001; McDonald, Newell, and Denson 2014; Park, Jun, and MacInnis 2000; Yaniv and Schul 1997, 2000), the end-price paid (Levin et al. 2002; Park et al. 2000), decision difficulty (Nagpal and Krishnamurthy 2008; Park et al., 2000), and the type of information processing (Laran and Wilcox 2011; Meloy and Russo 2004; Shafir 1993; Sokolova and Krishna 2016).

Relatively little effort, however, has been directed to investigating the circumstances under which individuals prefer to include or exclude, except for a few noticeable investigations. Recent studies indicate that individuals prefer to adopt an inclusion strategy for person judgment and employee-hiring tasks and an exclusion strategy for multiple-choice and employee-firing tasks (Heller, Levin, and Goransson 2002; Levin et al. 2001). Also, Mourali and Nagpal (2013) show that an inclusion strategy is more preferred by high-power individuals whereas low-power individuals opt for adopting an exclusion strategy. Besides task characteristic and psychological state, we postulate that chronic indecisiveness, one of the crucial dispositional characteristics related to decision making, also play a crucial role in elucidating the relationship between construction strategy and consideration set size. Considerable research on indecisiveness has characterized an indecisive individual as a decision maker who often lacks well-defined preferences and goals (Dhar 1997; Kreps 1979), exhibits strong loss aversion and status-quo bias (Danan and Ziegelmeyer 2006; Sautua 2017), and compulsively stockpiles things (Frost et al. 2011), all of which exert profound impacts on consideration set construction. Drawing on these findings, the current research aims to examine which of the two construction strategies—inclusion and exclusion—is more likely to be selected and how the selection of a particular strategy can affect consideration set size while addressing the moderating role of chronic indecisiveness in the construction process.

The remainder of this paper is organized as follows. We first provide a brief overview of the previous literature on construction set construction and the role of chronic indecisiveness, and build up our main hypotheses. Next, we describe two studies in which research participants with varying degrees of chronic indecisiveness self-select (Study 1) and are manipulated to adopt (Study 2) either an inclusion or an exclusion strategy to form a consideration set among 12 hotel alternatives, and discuss the findings of each study. Finally, we offer theoretical and practical contributions that our research makes to the literature on consideration set construction and indecisiveness, and also discuss

limitations and some interesting avenues for future research.

Ⅰ. Theoretical Background

1.1 Consideration Set Construction

When individuals encounter a large set of alternatives, they simplify their choice process by creating a consideration set that contains a subset of all available alternatives for further evaluation (Bettman 1979; Kardes et al. 1993). There are basically two ways in which individuals can construct a consideration set: inclusion and exclusion. While inclusion is a way of selecting or choosing likely alternatives that exceed a certain acceptance threshold in the consideration set, exclusion is a way of rejecting or eliminating the least likely alternatives that fall short of the threshold from the consideration set (Yaniv and Schul 1997).

A question then arises as to what would likely be a default strategy that most individuals employ to construct a consideration set? Prior studies showed that a default strategy varies as a function of perceived difficulty, task characteristics, and psychological state. Heller et al. (2001), for example, showed that individuals preferred to adopt an inclusion strategy for judgmental tasks whereas an exclusion strategy was employed for multiple choice tasks in relation to making a correct choice. Relatedly, Levin et al. (2001) found that individuals favored an inclusion strategy for positive tasks such as hiring employees whereas for negative tasks such as firing employees an exclusion strategy was preferred. Furthermore, Mourali and Nagpal (2013) demonstrated that individuals in a state of high power were more likely to adopt an inclusion strategy than an exclusion strategy whereas the opposite was true for individuals in a state of low power when it comes to form a consideration set among 24 brands of car. Indeed, previous studies found that an exclusion strategy was perceived more difficult and effortful compared to an inclusion strategy (Nagpal and Krishnamurthy 2008; Park et al. 2000). By contrast, Ordóñez, Benson, and Beach (1999) maintained that an exclusion strategy appeared to be a default strategy adopted in the control condition. Supporting this notion, Huber et al. (1987) found that more time was required for individuals to execute an inclusion strategy, particularly when costs were made salient.

Most individuals making a choice, however, strive to achieve goals that can guide their decisions as to what construction strategy to adopt and how much cognitive resources to invest or allocate to decision tasks at hand (Bettman 1979; Bettman, Luce, and Payne 1998). Ratneshwar, Pechmann, and Shocker (1996), for example, found that salient goals led individuals to create goal-derived consideration

sets. As such, it is more likely that an inclusion strategy is more preferred because it would be more efficient and natural to assume that individuals focus on the goal-compatible attributes than the goal-incompatible attributes (Meloy and Russo 2004; Shafir 1993). Taken together, we hypothesize as the following:

H1a: Individuals are more likely to adopt an inclusion strategy than an exclusion strategy when constructing a consideration set.

While including likely alternatives should be normatively equivalent to excluding the least likely alternatives, considerable past research has documented that an inclusion and an exclusion strategy oftentimes produce different outcomes. For example, previous studies on customized orders found that the end-price paid was significantly higher when individuals adopted an exclusion strategy rather than an inclusion strategy because the number of options added was much lower than those eliminated (Levin et al. 2002; Park et al. 2000). Also, with regard to information processing styles, an exclusion strategy relative to an inclusion strategy facilitated more deliberative processing of preference-inconsistent and less-important attributes (Laran and Wilcox 2011; Sokolova and Krishna 2016).

Most importantly, numerous studies documented convergent empirical evidence that an exclusion strategy led to a lager consideration set relative to an inclusion strategy (Huber et al. 1987; Levin et al. 2001; McDonald et al. 2014; Park et al. 2000; Yaniv and Schul 1997, 2000). Huber et al. (1987), for example, found that individuals interviewed a fewer number of job applicants under inclusion than exclusion. Such asymmetries would be attributed to different reference points under the two construction strategies, such that an inclusion strategy is executed from an empty set whereas an exclusion strategy is implemented from a full set of alternatives (Yaniv and Schul 2000). Previous studies demonstrated that an inclusion strategy led to a smaller consideration set because relatively higher reference points under inclusion lowered the likelihood of an alternative being retained in the final set (Levin, Jasper, and Forbes 1998; Yaniv and Schul 2000; Yaniv et al. 2002).

Prior research also posited that two construction strategies differed in terms of the status-quo bias (Kahneman, Knetsch, and Thaler 1991). In fact, an exclusion strategy rendered individuals form a larger consideration set (Huber et al. 1987; Levin et al. 2001; Yaniv and Schul 1997, 2000) so as to maintain the status quo (the empty set for an inclusion vs. the full set for an exclusion). In a related vein, Shafir (1993) and Park et al. (2000) demonstrated that individuals who adopted an exclusion strategy were more likely than those who adopted an inclusion strategy to reveal loss aversion (Tversky

& Kahneman 1991). Specifically, Park et al. (2000) articulated that individuals regarded eliminating pre-equipped options as losses and choosing additional options as gains, ending up spending more and having a lager consideration set as a result. Drawing on these findings, we hypothesize as the following:

H1b: An exclusion strategy will produce a larger consideration set than an inclusion strategy.

1.2 The Moderating Role of Chronic Indecisiveness

Chronic indecisiveness, defined as inability or difficulty in association with making all sorts of personal and professional decisions in a timely manner, regardless of whether those decisions are of little or great significance (Crites 1969; Osipow 1999), has widespread influences on a variety of human behaviors. Prior studies found that indecisive individuals gathered more pre-decisional information (Rassin et al. 2007), suffered from greater decision difficulty (Gati, Krausz, and Osipow 1996; Gayton et al. 1994), took longer time to make simple decisions (Frost and Shows 1993) and were afraid of neglecting the best alternative and post-decisional regrets (Germeijs and DeBoeck 2002).

Given the importance that chronic indecisiveness places upon the process of decision making, however, surprisingly little is known about its impact on the construction strategy adoption and consideration set size. According to Patalano and Wengrovitz (2007) and Rassin et al. (2007), indecisive individuals were more likely to engage in alternative-based, compensatory information processing. This alternative-based processing in turn allowed them to consider all the possible trade-offs between attributes and to maximize the outcome of decisions at the expense of cognitive resources (Oren, Dar, and Liberman 2018; Patalano et al. 2010). Given that an inclusion strategy involved choosing preference-consistent, goal-compatible alternatives (Laran and Wilcox 2011; Meloy and Russo 2004; Shafir 1993; Tse et al. 1988), indecisive individuals were less likely to adopt an inclusion strategy due to their inability to articulate preferences for a particular alternative (Dhar 1997; Kreps 1979). Also, Förster, Liberman, and Kuschel (2008) maintained that inclusion or assimilative judgments were prompted by higher-level, goal-oriented global processing whereas exclusion or contrast judgments were facilitated by lower-level, concrete detail-oriented local processing. Taken together, we hypothesize as the following:

H2a: High-indecisiveness individuals are less likely than low-indecisiveness individuals to adopt an inclusion strategy.

Recent investigations on compulsive hoarding, characterized by excessive gaining, difficulty

in discarding, and extreme disorganization (Steketee and Frost 2003), found that the number of categories created was positively correlated with compulsive hoarding (Wincze, Steketee, and Frost 2007), which was also strongly associated with chronic indecisiveness (Frost et al. 2011). On the other hand, Sautua (2017) revealed that chronic indecisiveness was a significant determinant of loss aversion and status-quo bias because indecisive individuals were afraid of risks and changes (Danan and Ziegelmeyer 2006; Rassin 2004). Taking into consideration compulsive hoarding and loss aversion, we anticipate that indecisive individuals are very likely to form a larger consideration set.

Furthermore, chronic indecisiveness can amplify the effect of the different construction strategies on consideration set size. As for exclusion strategy, for example, discarding alternatives is regarded as a loss (Tversky and Kahneman 1991), and thus high-indecisiveness individuals would be reluctant to exclude alternatives from the full set due to loss aversion. In this respect, we expect that adopting exclusion strategy would increase the consideration set size more for high-indecisiveness relative to low-indecisiveness individuals. As for inclusion strategy, however, the sense of gaining alternatives may contribute to attenuating the set size difference between high- and low-indecisiveness individuals. Alongside the supporting arguments made in support of H1a, H1b, and H2a, we hypothesize as the following:

H2b: High-indecisiveness individuals will form a larger consideration set than low-indecisiveness individuals.

H2c: Adopting an inclusion strategy will reduce the consideration set size to a greater degree among the high-indecisiveness compared to low-indecisiveness individuals.

Ⅱ. Study 1

The primary objective of Study 1 is twofold. First, the current study aims to test our key prediction that high-indecisiveness individuals are less likely than low-indecisiveness individuals to adopt an inclusion strategy when constructing a consideration set. Second, the current study intends to explore whether high-indecisiveness individuals who adopt an inclusion strategy are able to construct a smaller consideration set compared with those who adopt an exclusion strategy.

2.1 Method

2.1.1 Participants and Design

One hundred and twenty-four participants (M_{age} = 34.9, SD_{age} =10.99, 68.5% male) recruited from Amazon Mechanical Turk participated in this study in exchange for monetary compensation. The current study adopted a 2 (chronic

indecisiveness: low vs. high; measured) × 2 (construction strategy: inclusion vs. exclusion; self-selected) between-subjects design.

2.1.2 Procedure and Measures

Participants were first instructed to imagine planning a family trip to Hawaii and presented with a list of 12 hotel alternatives, as shown in 〈Table 1〉, that differed in price, room size, beach access, swimming pool, view, breakfast services, and spa. Given that the aim of the current research lies in investigating the moderating role of chronic indecisiveness in making decisions accompanied by multi-attributes evaluative judgments about a target, we opted for selecting a hotel selection task as in the previous literature (e.g., Diehl et al. 2003; Zauberman 2003).

Next, participants were told that they had an option to either include all the hotel alternatives they would want or exclude all the hotel alternatives they would not want to examine further. Participants were then asked to choose between the two construction strategies and to form a consideration set based on the construction strategy of their choice. Subsequent to the construction strategy selection task, participants in the inclusion (exclusion) condition were asked to click a radio button next to each hotel alternative to add (remove) all the hotel alternatives they would (not) want to examine further. After then, participants indicated how difficult, annoying, and complicated it was to construct a consideration set on a 7-point scale (1 = not at all; 7 = very much) as in Tybout et al. (2005). Participants' responses to these items were averaged to form a reliable perceived difficulty index (α = .88, M = 3.28, SD = .20). Afterwards, participants rated the level of chronic indecisiveness on sixteen 7-point items adopted from Frost and Shows (1993) and Germeijs and De Boeck (2002), as shown in 〈Table 2〉. These items were averaged to form a reliable chronic indecisiveness index (α =

〈Table 1〉 A List of 12 Hotel Alternatives (Study 1)

Price	Room Size	Beach Access	Swimming Pool	View	Breakfast	Spa
$56	28m^2	2min	X	City View	X	X
$79	32m^2	7min	Outdoor	Half Ocean View	X	X
$121	32m^2	7min	In & Out	Half Ocean View	O	O
$98	32m^2	5min	X	Ocean View	X	O
$79	28m^2	15min	In & Out	City View	O	O
$98	32m^2	15min	Outdoor	Half Ocean View	O	X
$121	32m^2	2min	Outdoor	Ocean View	O	X
$56	24m^2	15min	Indoor	City View	X	O
$79	28m^2	2min	X	Half Ocean View	O	X
$98	32m^2	10min	In & Out	City View	O	O
$56	24m^2	10min	Outdoor	City View	X	X
$121	40m^2	2min	Indoor	Ocean View	X	X

〈Table 2〉 The Items for the Chronic Indecisiveness Index (Studies 1 and 2)

Items
1. I try to put off making decisions
2. I always know exactly what I want.*
3. I find it easy to make decisions.*
4. I like to be in a position to make decisions.*
5. Once I make a decision, I feel fairly confident that it is a good one.*
6. When ordering from a menu, I usually find it difficult to decide what to get.
7. I usually make decisions quickly.*
8. Once I make a decision, I stop worrying about it.*
9. I become anxious when making a decision.
10. I often worry about making the wrong choice.
11. After I have chosen or decided something, I often believe I've made the wrong choice or decision.
12. It seems that deciding on the most trivial thing takes me a long time.
13. I would characterize myself as an indecisive person.
14. I don't hesitate much when I have to make a decision.*
15. I tend to leave decisions to someone else.
16. I often reconsider my decision.

NOTE.– * reverse scored item. The items were adopted from Frost and Shows (1993) and Germeijs and De Boeck (2002).

.94, M = 3.20, SD = .30). Last, participants answered questions about their demographics (age, gender).

2.2 Results and Discussion

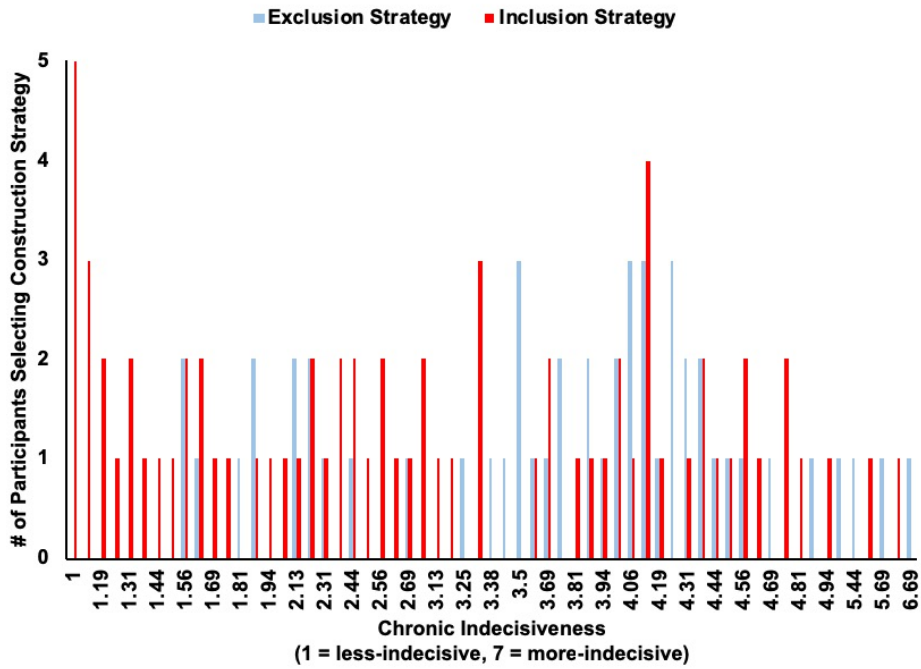
2.2.1 Construction Strategy Adoption

Similar to the previous findings (Heller et al. 2002; Levin et al., 2001), a chi-square test indicated the participants on average were more likely to select an inclusion strategy (58.9%) than an exclusion strategy (41.1%; $x^2(1)$ = 3.903, p = .048) when constructing a consideration set. Thus, H1a was supported. To further explore whether the likelihood of choosing a particular construction strategy would vary as to the level of chronic indecisiveness, we ran a binary logistic regression that included the construction strategy as the dependent variable (exclusion = 0, inclusion = 1) and the chronic indecisiveness index as the independent variable. As shown in 〈Figure 1〉, the analysis revealed a significant effect of the chronic indecisiveness on the construction strategy (b = -.48, SE = .15, Wald (1) = 9.946, p = .002), such that the high-indecisiveness participants were less likely to adopt an inclusion strategy relative to an exclusion strategy. Therefore, H2a was also supported.

2.2.2 Consideration Set Size

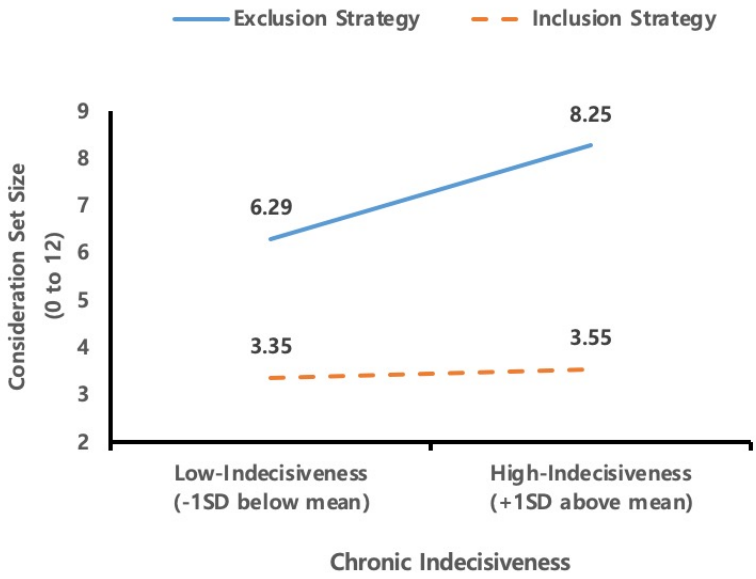
To test H1b, H2b, and H2c, we conducted a

〈Figure 1〉 Study 1: Number of Participants Selecting an Inclusion vs. an Exclusion Strategy Depending on the Level of Chronic Indecisiveness



multiple regression analysis with the chronic indecisiveness index (measured; mean-centered), the construction strategy (self-selected; exclusion = -1, inclusion = 1), and their interaction term as the independent variables and the consideration set size as the dependent variable. Congenial with the previous findings (Heller et al. 2002; Levin et al. 1998; Levin et al. 2001; Yaniv and Schul 2000; Yaniv et al. 2002), a significant main effect of the construction strategy emerged (b = *-1.90, SE = .22*, $t(120)$ = -8.636, $p < .001$), indicating that the consideration set size was much smaller when participants self-selected to employ an inclusion strategy (M = 3.42, SD = 1.98) than an exclusion strategy (M = 7.61, SE = 2.77). Thus, H1b was confirmed. In support of H2b, the analysis also exhibited a significant main effect of the chronic indecisiveness (b = .40, SE = .17, $t(120)$ = 2.354, $p < .05$). More importantly, the analysis revealed a marginally significant interaction (b = *-.33, SE = .17*, $t(120)$ = -1.922, p = .056). As shown in 〈Figure 2〉, the spotlight analysis showed that the high-indecisiveness participants who self-selected to adopt an exclusion strategy (M = 8.24) formed a larger consideration set than their low-indecisiveness counterpart (M = 6.28; b = .74, SE = .28, $t(120)$ = 2.617, $p < .05$). In contrast, no significant effect of the chronic indecisiveness was found

〈Figure 2〉 Study 1: Consideration Set Size (Spotlight Analysis)



among those who self-selected to employ an inclusion strategy ($M_{high\text{-}indecisiveness}$ = 3.55 vs. $M_{low\text{-}indecisiveness}$ = 3.35; b = .07, SE = .19, $t(120)$ = .374, p = .70), providing preliminary support for H2c in that adopting an inclusion strategy could reduce the consideration set size to a greater degree among the high-indecisiveness participants.

2.2.3 Perceived Difficulty

We ran the same regression analysis on the perceived difficulty index to see if participants' perceptions of relative effort required for executing an inclusion and an exclusion strategy guided their construction strategy choice (Heller et al. 2002). However, the analysis found only a significant effect of the chronic indecisiveness index emerged (b = .62, SE = .10, $t(120)$ = 5.783, p < .001). Neither the construction strategy (b = -.18, SE = .13, $t(120)$ = -1.383, p = .16) nor the chronic indecisiveness index × construction strategy interaction (b = .13, SE = .10, $t(120)$ = 1.295, p = .19) reached its statistical significance. Perhaps, this indifferent perception of difficulty between the construction strategies seems plausible because our research participants had no reasons to self-select one particular strategy that was expected to entail greater difficulty compared to the other.

2.2.4 Discussion

The current study documented empirical evidence in support of our hypotheses. We found that an inclusion strategy was preferred

to an exclusion strategy, but that the high-indecisiveness participants were less likely to adopt an inclusion strategy to construct a consideration set. More interestingly, the findings revealed that the high-indecisiveness participants were less likely to adopt an inclusion strategy despite the fact that an inclusion strategy could help reduce their consideration set size to a greater extent.

Ⅲ. Study 2

The primary goal of Study 2 is to further replicate the findings from Study 1 by randomly assigning research participants to either an inclusion or an exclusion strategy as the self-selection procedure could have limited the interpretive power of the dependent variables.

3.1 Method

3.1.1 Participants and Design

A total of 147 participants recruited from Amazon Mechanical Turk (M_{age}=35.1, SD_{age} =12.46, 53% female) completed this study in return for monetary compensation. The current study adopted a 2 (chronic indecisiveness: low vs. high; measured) × 2 (construction strategy: inclusion vs. exclusion; manipulated) between-subjects design.

3.1.2 Procedure and Measures

Identical to Study 1, participants were first instructed to imagine planning a family trip to Hawaii and presented with the 12 hotel alternatives. Next, participants were randomly assigned to one of the two construction strategy conditions in which they were asked to either include all the hotel alternatives for further consideration or exclude all the hotel alternatives they would not want to examine further by clicking a radio button next to each hotel alternative. Again, the remaining number of the hotel alternatives was counted to form the consideration set size variable. As in the previous study, we measured participants' responses to the three items for the perceived difficulty index (α = .83, M = 3.15, SD = 1.39) and the 16 items for the chronic indecisiveness index (α = .93, M = 3.47, SD = .09). Last, participants answered questions about their demographics (age, gender).

3.2 Results and Discussion

3.2.1 Consideration Set Size

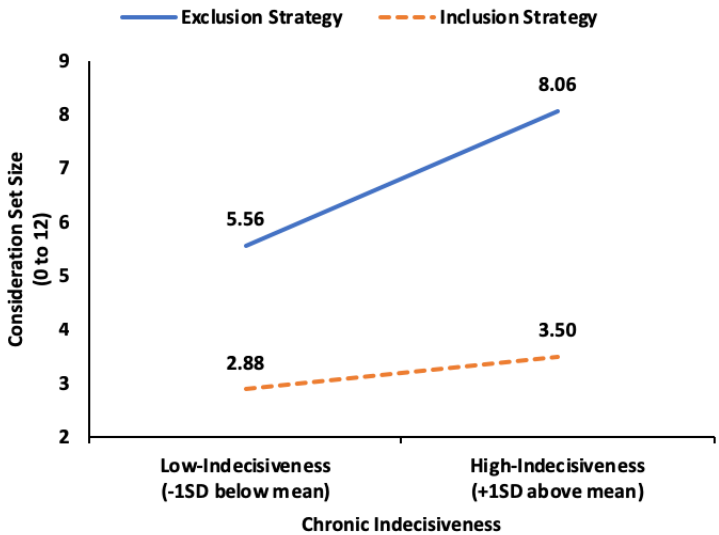
The identical multiple regression analysis that included the chronic indecisiveness index (measured; mean-centered), the construction strategy (manipulated; exclusion = -1, inclusion = 1), and their interaction term as the independent variables and the consideration

set size as the dependent variable was run to test our hypotheses. The analysis revealed a significant main effect of the construction strategy (b = -1.81, SE = .20, $t(143)$ = -9.203, p < .001), such that the consideration set size was much smaller for the participants under inclusion (M = 3.20, SD = 1.88) than for those under exclusion (M = 6.82, SE = 2.99). Thus, H1b was confirmed. Also, in support of H2b, the analysis found a significant main effect of the chronic indecisiveness (b = .68, SE = .17, $t(143)$ = 3.920, p < .001). More importantly, the analysis exhibited a significant interaction (b = -.41, SE = .17, $t(143)$ = -2.363, p < .05), which was further qualified by the spotlight analysis, as shown in <Figure 3>. In the exclusion condition, the spotlight analysis showed that the high-indecisiveness participants (M = 8.06) formed a larger consideration set size than the low-indecisiveness participants (M = 5.56; b = 1.09, SE = .26, $t(143)$ = 4.187, p < .001). In the inclusion condition, the size of a consideration set did not differ between the level of chronic indecisiveness ($M_{high\text{-}indecisiveness}$ = 3.50 vs. $M_{low\text{-}indecisiveness}$ = 2.88; b = .27, SE = .22, $t(143)$ = 1.177, p = .24), providing strong supporting evidence for H2c.

3.2.2 Perceived Difficulty

As shown in <Figure 4>, the same regression analysis on the perceived difficulty index indicated that the chronic indecisiveness index (b = .60, SE = .08, $t(143)$ = 6.816, p < .01) and the chronic indecisiveness index × construction strategy interaction (b = -.19, SE = .08, $t(143)$ = -2.154, p < .05) were significant. In

<Figure 3> Study 2: Consideration Set Size (Spotlight Analysis)



particular, the findings revealed that the level of perceived difficulty was no different regardless of whether the high-indecisiveness individuals adopted an inclusion or an exclusion strategy (b = -.12, SE = .14, $t(143)$ = -.866, p = .38). The low-indecisiveness participants, however, perceived greater difficulty under inclusion than those under exclusion (b = .31, SE = .14, $t(143)$ = 2.196, $p < .05$), suggesting that adopting an inclusion strategy resulted in much greater reduction in the consideration set size for the high-indecisiveness than the low-indecisiveness participants without elevating the level of perceived difficulty.

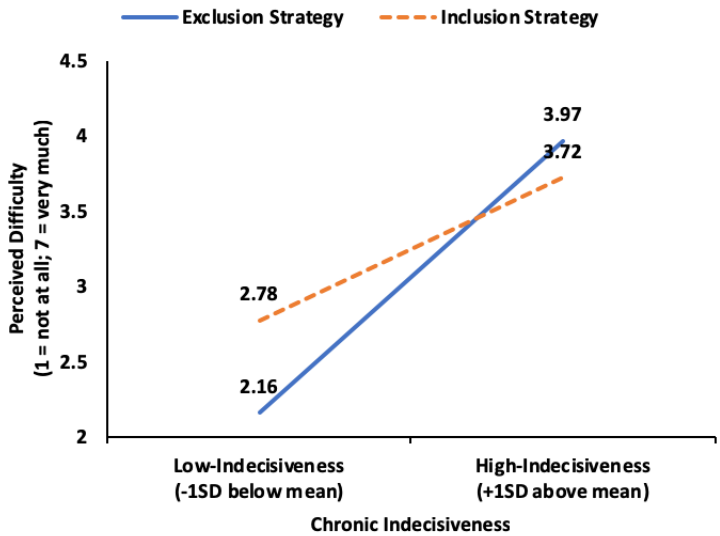
3.2.3 Discussion

Study 2 successfully replicated the findings of the previous study and provided additional evidence for our hypotheses with regard to the moderating role of chronic indecisiveness in determining the effect of an inclusion strategy versus an exclusion strategy on the consideration set size. Most importantly, the findings suggest that it is the high-indecisiveness individuals who can benefit much from adopting an inclusion strategy because they can construct a consideration set of which the size is as small as the one formed by the low-indecisiveness participants at no additional cost of difficulty.

Ⅳ. Summary and Implications

In this research, we have investigated which of the two construction strategies—inclusion and exclusion—is more frequently to be adopted

〈Figure 4〉 Study 2: Perceived Difficulty (Spotlight Analysis)



and how the adoption of a particular strategy affects consideration set size while identifying the moderating role of chronic indecisiveness in the construction process. Toward this end, we conducted two studies in which individuals with varying degrees of chronic indecisiveness were instructed to self-select (Study 1) and manipulated to adopt (Study 2) either an inclusion or an exclusion strategy to construct a consideration set among 12 hotel alternatives. The findings of Study 1 indicated that individuals on average preferred an inclusion strategy to an exclusion strategy to form a consideration set whereas adopting an exclusion strategy led to a larger consideration set. In Study 2, this research further demonstrated that high-indecisiveness individuals were less likely than low-indecisiveness individuals to adopt an inclusion strategy, but that adopting an inclusion strategy enabled high-indecisiveness individuals to significantly reduce the number of alternatives in a consideration set down to a manageable size on par with the size of a consideration set formed by low-indecisiveness individuals without elevating the level of perceived difficulty.

4.1 Theoretical and Practical Contributions

Noticeable theoretical and practical contributions that the current research makes to the streams of research on consideration set construction and indecisiveness are the following. First, the current research contributes to the literature on consideration set construction by replicating and extending the previous findings on construction strategy selection and consideration set size through the incorporation of chronic indecisiveness into the process of consideration set formation. Consistent with the previous findings that an inclusion is a relatively more popular construction strategy (Heller et al. 2002; Levin et al., 2001), our research further suggests that chronic indecisiveness or the lack of well-defined preferences can inhibit individuals from adopting an inclusion strategy.

Second, the current research also contributes to the literature on indecisiveness. As described earlier, our research indicates that high-indecisiveness individuals are likely to form a bigger consideration set compared to low-indecisiveness individuals presumably because chronic indecisiveness strongly correlates with loss aversion and status-quo bias (Danan and Ziegelmeyer 2006; Sautua 2017) and compulsive hoarding (Frost et al. 2011). Despite the fact that underlying psychological mechanisms for the positive effect of chronic indecisiveness on consideration set size were not directly tested in our studies, the current research extends the scope of indecisiveness research by bringing up another information processing account for chronic indecisiveness with regard to the consideration set formation decisions.

Third, the current research has important implications for practitioners with regard to effective marketing communication tactics that

can influence the process of consideration set composition. For instance, top-dog brands relative to underdogs are more likely to be retrieved, considered, and selected in the memory-based choice contexts because the accessibility of brand-related memory is much greater for those well-known, leading or pioneering brands (e.g., Nedungadi 1990; Kardes et al. 1993). Nevertheless, the findings of our research suggest that underdogs may also benefit much from inducing consumers to adopt an exclusion strategy in the stimulus-based choice contexts because the likelihood of underdogs being eliminated from the initial set of alternatives is low, as shown in the current research.

Fourth, our findings further suggest that encouraging indecisive individuals to adopt an inclusion strategy can lead them to construct smaller consideration sets. Knowing that a larger consideration set oftentimes entails greater decision difficulty (e.g., Goodman et al. 2013), it is important for practitioners to prevent indecisive customers from deferring their choices by reducing the size of their consideration sets, which in turn contributing to increased sales.

Last but not least, the current research also broadens our understanding of chronic indecisiveness by offering important insights into the reasons indecisive individuals often end up keeping too many alternatives in a consideration set and unnecessarily undergo greater difficulty than otherwise they would have done. According to the findings of this research, although a majority of individuals are likely to adopt an inclusion strategy for constructing a consideration set, indecisive individuals are less likely to do so despite the fact that an inclusion strategy helps generate a smaller consideration set at no extra cost. Therefore, a quick-fix for indecisive individuals who find it difficult to make everyday decisions is to articulate and recall decision goals prior to entering into the process of consideration set construction because underspecified decision goals or the lack thereof can discourage indecisive individuals from adopting an inclusion strategy.

4.2 Limitations and Future Research

Despite all the merits, our research also has certain limitations that offer interesting avenues for further research. First of all, it is still unclear what psychological mechanism can mediate the effect of chronic indecisiveness and construction strategy choice on consideration set size. One plausible underlying mechanism would be related to the level of construal that indecisive individuals adopt. According to Trope and Liberman (2010), individuals with high-level of construal mostly focus on goal-relevant information that is primary and essential to their judgment. In contrast, individuals with low-level of construal also focus on concrete details of goal-irrelevant information that is secondary and peripheral to their judgment. Congenial with the indecisiveness-compulsive

relation, considerable past research on the level of construal has demonstrated that lower construal produces more categories to classify objects than higher construal (Fujita et al. 2006; Liberman, Sagristano, and Trope 2002; Smith and Trope 2006; Wakslak et al. 2006). These findings parallel with Patalano et al. (2010) in which indecisive individuals were found to be engaging in alternative-based compensatory processing, such that every single alternative or attribute receives an equal weight. We thus expect that the level of construal that indecisive individuals adopt would be too low to employ an inclusion strategy.

Second, future research needs to take cultural differences into account. According to recent research by Yates et al. (2010), the cultures to which individuals belong can be powerful predictors of the level of indecisiveness. The authors, for example, demonstrate that indecisiveness is much stronger in the Japanese culture compared to Chinese and American cultures in which indecisive individuals are least likely to be respected. Knowing that other significant cultural differences such as individualism, power distance, and masculinity can affect loss aversion (Wang, Rieger, and Hens 2017), future research needs to follow a more integrative approach to address this issue.

Lastly, we have to admit that there is the lack of external generalizability because the current research limits its focus only on the hotel selection task. Thus, further research seems warranted because potential differences in other product categories can be observed. For example, indecisive individuals may experience greater difficulty constructing a consideration set for certain product categories (e.g., electric bikes, tents, blenders) as product familiarity affects trade-off difficulty significantly (e.g., Ratneshwar, Shocker, and Stewart 1987).

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References

Bettman, James R. (1979), *An Information Processing Theory of Consumer Choice*, Boston, MA: Addison Wesley.

Bettman, James R., Mary F. Luce, and John W. Payne (1998), "Constructive Consumer Choice Processes," *Journal of Consumer Research*, 25(3), 187-217.

Chakravarti, Amitav and Chris Janiszewski (2003), "The Influence of Macro-Level Motives on Consideration Set Composition in Novel Purchase Situations," *Journal of Consumer Research*, 30(2), 244-258.

Crites, John O. (1969), *Vocational Psychology: The Study of Vocational Behavior and Development*, New York, NY: McGraw-Hill.

Danan, Eric and Anthony Ziegelmeyer (2006), "Are Preferences Complete? An Experimental

Measurement of Indecisiveness under Risk," *Papers on Strategic Interaction 2006-01*, Max Planck Institute of Economics, Strategic Interaction Group.

Dhar, Ravi (1997), "Consumer Preference for a No-Choice Option," *Journal of Consumer Research*, 24(2), 215-231.

Diehl, Kristin, Laura J. Kornish, John G. Lynch, Jr. (2003), "Smart Agents: When Lower Search Costs for Quality Information Increase Price Sensitivity," *Journal of Consumer Research*, 30(1), 56-71.

Förster, Jens, Nira Liberman, and Stefanie Kuschel (2008), "The Effect of Global versus Local Processing Styles on Assimilation versus Contrast in Social Judgment," *Journal of Personality and Social Psychology*, 94, 579-599.

Frost, Randy O. and Deanna L. Shows (1993), "The Nature and Measurement of Compulsive Indecisiveness," *Behaviour Research and Therapy*, 31(7), 683-692.

Frost, Randy O. Frost, David F. Tolin, Gail Steketee, and Milim Oh (2011), "Indecisiveness and Hoarding," *International Journal of Cognitive Therapy*, 4, Special Section: Hoarding, 253-262.

Fujita, Kentaro, Marlone D. Henderson, Juliana Eng, Yaacov Trope, and Nira Liberman (2006), "Spatial Distance and Mental Construal of Social Events," *Psychological Science*, 17, 278-282.

Gati, Itamar, Mina Krausz, and Samuel H. Osipow (1996), "A Taxonomy of Difficulties in Career Decision Making," *Journal of Counseling Psychology*, 43(4), 510-526.

Germeijs, Veerle and Paul De Boeck (2002), "A Measurement Scale for Indecisiveness and Its Relationship to Career Indecision and Other Types of Indecision," *European Journal of Psychological Assessment*, 18 (2), 113-122.

Goodman, Joseph K., Susan M. Broniarczyk, Jill G. Griffin, and Leigh McAlister (2013), "Help or Hinder? When Recommendation Signage Expands Consideration Sets and Heightens Decision Difficulty," *Journal of Consumer Psychology*, 23(2), 165-174.

Heller, Daniel, Irwin P. Levin, and Martin Goransson (2002), "Selection of Strategies for Narrowing Choice Options: Antecedents and Consequences," *Organizational Behavior and Human Decision Processes*, 89(2), 1194-1213.

Huber, Vandra L., Margaret A. Neale, and Gregory B. Northcraft (1987), "Decision Bias and Personnel Selection Strategies," *Organizational Behavior and Human Decision Processes*, 40(1), 136-147.

Kahneman, Daniel, Jack L. Knetsch, and Richard H. Thaler (1991), "Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias," *Journal of Economic Perspectives*, 5 (1), 193-206.

Kardes, Frank R., Gurumurthy Kalyanaram, Murali Chandrashekaran, and Ronald J.

Dornoff (1993), "Brand Retrieval, Consideration Set Composition, Consumer Choice, and the Pioneering Advantage," *Journal of Consumer Research*, 20(June), 62-73.

Kreps, David M. (1979), "A Representation Theorem for 'Preference for Flexibility'," *Econometrica*, 47(3), 565-577.

Laran, Juliano and Keith Wilcox (2011), "Choice, Rejection, and Elaboration on Preference-Inconsistent Alternatives," *Journal of Consumer Research*, 38(2), 229-241.

Levin, Irwin P., Caryn M. Prosansky, Daniel Heller, and Brad M. Brunick (2001), "Prescreening of Choice Options in Positive and Negative Decision-Making Tasks," *Journal of Behavioral Decision Making*, 14, 279-293.

Levin, Irwin P., Judy Schreiber, Marco Lauriola, and Gary J. Gaeth (2002), "A Tale of Two Pizzas: Building Up from a Basic Product versus Scaling Down from a Fully-Loaded Product," *Marketing Letters*, 13(4), 335-344.

Liberman, Nira, Michael D. Sagristano, and Yaacov Trope (2002), "The Effect of Temporal Distance on Level of Construal. *Journal of Experimental Social Psychology*, 38, 523-535.

McDonald, Rachel I., Ben R. Newell, and Thomas F. Denson (2014), "Would You Rule Out Going Green? The Effect of Inclusion versus Exclusion Mindset on Pro-Environmental Willingness," *European Journal of Social Psychology*, 44(5), 507-513.

Meloy, Margaret G. and Edward J. Russo (2004), "Binary Choice under Instructions to Select versus Reject," *Organizational Behavior and Human Decision Processes*, 93(2), 114-128.

Mourali, Mehdi and Anish Nagpal (2013), "The Powerful Select, The Powerless Reject: Power's Influence in Decision Strategies," *Journal of Business Research*, 66(7), 874-880.

Nagpal, Anish and Parthasarathy Krishnamurthy (2008), "Attribute Conflict in Consumer Decision Making: The Role of Task Compatibility," *Journal of Consumer Research*, 34(5), 696-705.

Nedungadi, Prakash (1990), "Recall and Consumer Consideration Sets: Influencing Choice without Altering Brand Evaluations," *Journal of Consumer Research*, 17(3), 263-276.

Ordóñez, Lisa D., Lehman Benson III, and Lee Roy Beach (1999), "Testing the Compatibility Test: How Instructions, Accountability, and Anticipated Regret Affect Prechoice Screening of Options," *Organizational Behavior and Human Decision Processes*, 78(1), 63-80.

Ospiow, Samuel H. (1999), "Assessing Career Indecision," *Journal of Vocational Behavior*, 55, 147-54.

Park, C. Whan, Sung Youl Jun, and Deborah J. MacInnis (2000), "Choosing What I Want

versus Rejecting What I Do Not Want: An Application of Decision Framing to Product Option Choice Decisions," *Journal of Marketing Research*, 37(2), 187-202.

Patalano, Andrea L. and Steven M. Wengrovitz (2007), "Indecisiveness and Response to Risk in Deciding When to Decide," *Journal of Behavioral Decision Making*, 20(4), 405-424.

Patalano, Andrea L., Barbara J. Juhasz, and Joanna Dicke (2010), "The Relationship Between Indecisiveness and Eye Movement Patterns in a Decision Making Informational Search Task," *Journal of Behavioral Decision Making*, 23(4), 353-368.

Rassin, Eric (2004), "Indecisiveness and Worst Case Scenario Reasoning," in a poster presented at the European Conference of Behavioural and Cognitive Psychotherapy, Manchester, UK.

Rassin, Eric, Peter Muris, Ingmar H. A. Franken, Marij Smit, and Maggie Wong (2007), "Measuring General Indecisiveness," *Journal of Psychopathology and Behavioral Assessment*, 29(1), 61-68.

Ratneshwar, Srinivasan, Alan D. Shocker, and David W. Stewart (1987), "Toward Understanding the Attraction Effect: The Implications of Product Stimulus Meaningfulness and Familiarity," *Journal of Consumer Research*, 13(4), 520-533.

Ratneshwar, Srinivasan, Cornelia Pechmann, and Allan D. Shocker (1996), "Goal-Derived Categories and the Antecedents of Across-Category Consideration," *Journal of Consumer Research*, 23(3), 240-250.

Sautua, Santiago I. (2017), "Does Uncertainty Cause Inertia in Decision Making? An Experimental Study of the Role of Regret Aversion and Indecisiveness," *Journal of Economic Behavior & Organization*, 136, 1-14.

Shafir, Eldar (1993), "Choosing versus Rejecting: Why Some Options are Both Better and Worse Than Others," *Memory & Cognition*, 21(4), 546-556.

Smith Pamela K. and Yaacov Trope (2006), "You Focus on the Forest When You're in Charge of the Trees: Power Priming and Abstract Information Processing," *Journal of Personality and Social Psychology*, 90(4), 578-596.

Sokolova, Tatiana and Aradhna Krishna (2016), "Take It or Leave It: How Choosing versus Rejecting Alternatives Affects Information Processing," *Journal of Consumer Research*, 43(4), 614-635.

Steketee, Gail and Randy Frost (2003), "Compulsive Hoarding: Current Status of the Research," *Clinical Psychology Review*, 23(7), 905-927.

Trope, Yaacov and Nira Liberman (2010), "Construal-Level Theory of Psychological Distance," *Psychological Review*, 117(2), 440-463.

Tse, David K., Kam-hon Lee, Ilan Vertinsky,

and Donald A. Wehrung (1988), "Does Culture Matter? A Cross-Cultural Study of Executives' Choice, Decisiveness, and Risk Adjustment in International Marketing," *Journal of Marketing*, 52, 81-95.

Tversky, Amos and Daniel Kahneman (1991), "Loss Aversion in Riskless Choice: A Reference-Dependent Model," *The Quarterly Journal of Economics*, 106(4), 1039-1061.

Tybout, Alice M., Brian Sternthal, Prashant Malaviya, Georgios A. Bakamitsos, and Se-Bum Park (2005), "Information Accessibility as a Moderator of Judgments: The Role of Content versus Retrieval Ease," *Journal of Consumer Research*, 32(1), 76-85.

Wakslak Cheryl J., Yaacov Trope, Nira Liberman, and Rotem Alony (2006), "Seeing the Forest When Entry is Unlikely: Probability and the Mental Representation of Events," *Journal of Experimental Psychology: General*, 135(4), 641-653.

Wang, Mei, Marc. O. Rieger, and Thorsten Hens (2017), "The Impact of Culture on Loss Aversion," *Journal of Behavioral Decision Making*, 30(2), 270-281.

Wincze, Jeffrey P., Gail Steketee, and Randy O. Frost (2007), "Categorization in Compulsive Hoarding," *Behaviour Research and Therapy*, 45, 63-72.

Yaniv, Ilan and Yaacov Schul (1997), "Elimination and Inclusion Procedures in Judgment," *Journal of Behavioral Decision Making*, 10 (3), 211-220.

Yaniv, Ilan and Yaacov Schul (2000), "Acceptance and Elimination Procedures in Choice: Noncomplementarity and the Role of Implied Status Quo," *Organizational Behavior and Human Decision Processes*, 82(2), 293-313.

Yaniv, Ilan, Yaacov Schul, Ronna Raphaelli-Hirsch, and Ifat Maoz (2002), "Inclusive and Exclusive Modes of Thinking: Studies of Prediction, Preference, and Social Perception During Parliamentary Elections," *Journal of Experimental Social Psychology*, 38(4), 352-367.

Yates, Frank J., Li-Jun Ji, Takashi Oka, Ju-Whei Lee, Hiromi Shinotsuka, and Winston R. Sieck (2010), "Indecisiveness and Culture: Incidence, Values, and Thoroughness," *Journal of Cross-Cultural Psychology*, 41 (3), 428-444.

Zauberman, Gal (2003), "The Intertemporal Dynamics of Consumer Lock-In," *Journal of Consumer Research*, 30(3), 405-419.