

Recent years have witnessed a growth in mass customized products. For example, Nike lets customers design their own shoes, and Pizza Hut's online pizza builder allows people to create their ideal pizza from an array of different options. Although consumers find customization desirable, providing greater variety of component ingredients has direct cost implications for marketers. Thus, marketers are left asking the question: will offering more options for customization necessarily increase consumer value (i.e., the amount they are willing to pay)? We suggest that the answer to this question might lie in the mindsets that consumers have accessible.

Wyer and Xu (2010) introduced the concept of behavioral mindsets as cognitive procedures that get activated while pursuing a goal. Once activated, they have an effect on judgments and decisions that are made in a later, quite different situation. Two mindsets that are particularly applicable to this paper are a connecting and separating mindset (Oyserman et al. 2009). In conceptualizing cultural differences in information processing, Oyserman and colleagues suggested that broad differences in individualism and collectivism give rise to different mindsets or information processing tendencies. Individualism leads to a tendency to think of oneself as separate from others and this enables these individuals to separate out from the context (a separating mindset). In contrast, collectivism fosters a tendency to think of how one is connected to others giving rise to a tendency to make connections (a connecting mindset).

Oyserman and colleagues (2009) showed that connecting and separating mindsets influence the way in which people process information. For example, Mourey, Oyserman and Yoon (2013) showed that participants with a connecting (vs. separating) mindset were less (vs. more) likely to purchase a bundle if they were later told that one of the items in the bundle was unavailable, presumably because they had formed a connection between the items and therefore couldn't consider them separately.

These information-processing strategies are, thus, likely to affect how people consider options for customization. Suppose a consumer at a frozen yogurt shop is trying to decide which toppings (fruits, chocolate, candy etc.) they would like to add to their yogurt. Those with a connecting mindset, given their tendency to make connections, focus on how the various toppings relate to each other along different dimensions (are they sweet or sour, soft or crunchy, etc.). However, consumers with a separating mindset, given their tendency to parse out key features, notice the more focal dimensions on which the toppings differ (e.g., fruit/chocolate, healthy/unhealthy). This difference leads to a tendency to consider more (vs. less) dimensions in categorizing the assortment.

The above difference in number of dimensions generated has implications for how these groups react to assortment size increases. Consumers with a connecting mindset are able to create many combinations even with a small assortment because of their tendency to generate more dimensions and combine them in different ways. When they make their final choice from a set of many possible combinations, they are willing to pay more for that option given that they have considered several options and then picked one (Muthukrishnan and Wathieu 2007). Therefore, increasing assortment size for these consumers should not have any appreciable effect on value given the large number of combinations they can generate from both small and large assortments.

In contrast, those primed with a separating mindset generate few dimensions and can generate only a limited number of combinations with a small assortment. Consequently the option they finally choose from the limited set appears to be of

limited value. But when assortment size is increased, these consumers can generate more combinations which increases the perceived value from their final choice. Furthermore, consumers' perception of value and number of combinations generated mediates the effect of assortment size on willingness-to-pay for their choice.

Study 1 tested the basic hypothesis that people primed with different mindsets differ in their tendency to generate more or less dimensions. Results showed that participants primed with a connecting mindset were able to generate higher number of dimensions for the food toppings ($M_{\text{connecting}} = 3.32$) compared to those primed with a separating mindset ($M_{\text{separating}} = 2.81$), $F(1, 150) = 3.99$, $p = .047$.

Study 2 showed that those with a connecting mindset made more combinations from both small ($M_{\text{small}} = 9.37$) and large ($M_{\text{large}} = 9.20$) assortments and thus did not differ in their willingness-to-pay ($M_{\text{small}} = \$2.75$) ($M_{\text{large}} = \2.77), $F < 1$, for their chosen option across assortments. However those with a separating mindset made more combinations and had a higher willingness-to-pay for their choice when they were given a large assortment ($M_{\text{large}} = \$3.32$ vs. $M_{\text{small}} = \$2.47$, $F(1, 236) = 8.88$, $p < .01$). Furthermore, for those with a separating mindset, number of combinations mediated the effect of mindsets and assortments size on willingness-to-pay ($\beta = .10$, with a 95% CI exclusive of 0 [.0041, .4252]) but not for those with a connecting mindset.

Study 3 used eye-tracking data to show that mindsets only had an effect at the integration stage but not at encoding. Specifically, when it came to time taken to choose their toppings, those primed with a connecting mindset took much longer ($M_{\text{connecting}} = 77.99$ secs, $SD = 38.84$) relative to those primed with a separating mindset ($M_{\text{separating}} = 43.36$ secs, $SD = 12.49$), ($F(1, 71) = 25.93$, $p = .00$).

Finally, study 4 showed that mindsets affected type but not depth of processing by looking at spatial and general memory for the encoded items. Results showed that when it came to general memory, there was no difference between the two mindsets, but when it came to spatial memory participants primed with a connecting mindset had a higher memory score ($M_{\text{connecting}} = 7.95$, $SD = 6.21$) as compared to participants primed with a separating mindset ($M_{\text{separating}} = 5.18$, $SD = 4.20$) ($F(1, 114) = 7.91$, $p = .006$).

This work makes a number of theoretical and substantive contributions. First, it provides a general framework for understanding the process of product customization. It also suggests that in a customization context some consumers might perceive enough variety even with a small assortment and increases in assortment size might not matter much in terms of their willingness-to-pay.

Summary of Results

Dependent Var.	Mindset	Mean (SD)	
Study 1			
<i>Number of dimensions listed</i>	Connecting	3.32 ^a (1.58)	
	Separating	2.81 ^b (1.56)	
Study 2			
Study 2	Mindset	Assortment Size	Mean (SD)

<i>Number of combinations generated</i>	Connecting	Small	9.37 ^a (2.71)
		Large	9.20 ^a (2.49)
	Separating	Small	7.97 ^b (2.66)
		Large	9.38 ^a (2.42)
<i>Willingness-to-pay</i>	Connecting	Small	2.75 ^a (1.50)
		Large	2.77 ^a (1.38)
	Separating	Small	2.47 ^a (1.11)
		Large	3.32 ^b (2.07)

Study 3	Mindset	Mean(SD)
<i>Number of fixations</i>	Connecting	71.83 ^a (24.96)
	Separating	79.47 ^a (35.77)
<i>Fixation time (ms)</i>	Connecting	1137.75 ^a (432.93)
	Separating	1295.42 ^a (587.23)
<i>Time taken to list toppings (s)</i>	Connecting	77.99 ^a (38.84)
	Separating	43.36 ^b (12.49)
<i>Multi-dimensional thinking</i>	Connecting	.36 ^a (.49)
	Separating	.17 ^b (.38)

Study 4	Mindset	Mean (SD)
<i>Spatial memory score</i>	Connecting	7.95 ^a (6.21)
	Separating	5.18 ^b (4.20)
<i>General memory score</i>	Connecting	16.07 ^a (7.58)
	Separating	14.07 ^a (6.66)

Note. Means with dissimilar superscripts significantly differ at $p < .05$ for each dependent variable.